Irrigated Lands Regulatory Program

Final Program Environmental Impact Report

MARCH 2011

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Contents

Acronyms and Abbreviations

Basin Plans	Water Quality Control Plans
BOD	biochemical oxygen demand
BPTC	best practicable treatment or control
Caltrans	California Department of Transportation
CCR	California Code of Regulations
Central Valley Water Board, or Board	Central Valley Regional Water Quality Control Board
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
COD	chemical oxygen demand
CSPA	California Sportfishing Protection Alliance
CSU	California State University
CWA	federal Clean Water Act
DHS	California Department of Health Services
DO	dissolved oxygen
DPH	California Department of Public Health
DPR	California Department of Pesticide Regulation
Draft ILRP Economics Report	Draft Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program
DWR	California Department of Water Resources
EC	electrical conductivity
ECR	Existing Conditions Report
EIR	environmental impact report
EPA	U.S. Environmental Protection Agency
ESA	federal Endangered Species Act
FWQMP	farm water quality management plan
GAMA	Groundwater Ambient Monitoring and Assessment
GHG	greenhouse gas
GQMP	groundwater quality management plan
GWPA	groundwater protection area
IID	Imperial Irrigation District
ILRP	Irrigated Lands Regulatory Program
lbs N/acre/year	pounds nitrogen per acre per year
MCL	maximum contaminant level
NAHC	Native American Heritage Commission
NAWQA	National Water Quality Assessment Program
NPDES	National Pollutant Discharge Elimination System
NPS	nonpoint source

PEIR	Program Environmental Impact Report
PHG	Public Health Goal
Porter-Cologne	Porter-Cologne Water Quality Control Act
ppb	parts per billion
Recommended Framework	Recommended ILRP Framework
ROWD	report of waste discharge
SJMSCP	San Joaquin County Multi-Species Habitat Conservation and Open Space Plan
SQMP	surface water quality management plan
SSJVWQC	Southern San Joaquin Valley Water Quality Coalition
State Water Board	State Water Resources Control Board
SVWQC	Sacramento Valley Water Quality Coalition
UC	University of California
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
WDR	waste discharge requirements
WHO	World Health Organization
Workgroup	Stakeholder Advisory Workgroup

Chapter 1
Introduction

1.1 Purpose of the Final Program Environmental Impact Report

The purpose of the Final Irrigated Lands Regulatory Program (ILRP), Program Environmental Impact Report (Final PEIR) is to respond to public and agency comments on the *Draft Irrigated Lands Regulatory Program, Program Environmental Impact Report* (Draft PEIR), which was released for review in July 2010 (ICF International 2010a). The Final PEIR also makes factual corrections and provides clarifying revisions of material that was contained in the Draft PEIR. This document, along with the Draft PEIR which is hereby incorporated by reference, constitutes the Final PEIR in compliance with the California Environmental Quality Act (CEQA).

1.2 CEQA Requirements

The content and format of this Final PEIR meet the requirements of CEQA and the State CEQA Guidelines (Section 15132), which require a final EIR to consist of:

- The draft EIR or a revision of the draft EIR;
- Comments and recommendations received on the draft EIR, either verbatim or in summary (Chapter 3 contains the 145 comment letters received on the Draft PEIR);
- A list of persons, organizations, and public agencies commenting on the draft EIR (in Chapter 3);
- Responses of the lead agency to significant environmental points raised in the review and consultation process (in Chapters 2 and 3); and
- Any information added by the lead agency (in this chapter and Chapter 4).

1.3 Public Review of the Program Environmental Impact Report

The Draft PEIR was released on July 28, 2010 for a 60-day public review period, in compliance with CEQA. Copies of the Draft PEIR were forwarded to the California State Clearinghouse; to libraries at Central Valley Regional Water Quality Control Board (Central Valley Water Board) offices in Redding, Rancho Cordova, and Fresno; and university libraries at California State University (CSU) Bakersfield, CSU Chico, University of California (UC) Merced and UC Davis. Electronic copies of the Draft PEIR were made available on the Central Valley Water Board website at: <http://www.swrcb.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development>. Simultaneously, the Central Valley Water Board released the *Draft Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program* (ICF International 2010b) (Draft ILRP Economics Report) in compliance with Section 13141 of the California Water

Code. While this document is not a part of the Draft PEIR and is not required by CEQA, its analysis was the basis for the agricultural production impact analysis in the Draft PEIR. Following release of the Draft PEIR, the Central Valley Water Board conducted four public workshops to describe the contents of the Draft PEIR and receive questions and comments from the public. These meetings were held on September 8, 2010 in Tulare; September 9, 2010 in Modesto; and September 10, 2010 in Rancho Cordova and Chico. Approximately 193 individuals attended the workshops. The attendees were encouraged to ask questions of Central Valley Water Board and consultant staff in breakout sessions and to submit formal comments in writing.

The public review of the Draft PEIR generated 145 letters of comment with over 1,110 individual comments. All written comments received by the Central Valley Water Board that were concerned with the environmental analysis contained in the Draft PEIR are addressed in this Final PEIR (see Chapters 2 and 3). A number of the comments addressed the separate Draft ILRP Economics Report. These comments are not addressed individually in this Final PEIR, as the document is not part of the CEQA-required impact analysis. Instead, the comments on the economic report are summarized and addressed in Master Response 17 in Chapter 2 of this Final PEIR.

In accordance with Sate CEQA Guidelines Section 15088, digital copies of this Final PEIR have been made available to all public agencies that provided comment on the Draft PEIR through the Central Valley Board website:
<http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/index.shtml>

In addition, hard copies have been made available for review at the Central Valley Water Board offices in Redding, Rancho Cordova, and Fresno; and at university libraries at CSU Chico, CSU Bakersfield, UC Merced, and UC Davis. Individuals wishing to receive copies of the Final PEIR should forward a request to Adam Laputz of the Central Valley Water Board at the address listed on the title page of this document.

As Lead Agency under CEQA, the Central Valley Water Board must consider certification of this Final PEIR as required by Section 15090 of the State CEQA Guidelines. In that process, the Central Valley Water Board must certify that the document has been completed in compliance with CEQA, it has reviewed and considered the information in the Final PEIR, and the document represents the Board's independent judgment and analysis. Only after this certification can the Central Valley Water Board take action on the Long-term ILRP. The Central Valley Water Board intends to consider the certification of this Final PEIR at its April 2011 Board meeting. This meeting is open to the public. If the Final PEIR is certified as adequate under CEQA, the Central Valley Water Board intends to take action on the Long-term ILRP.

1.4 Content and Format of the Final Program Environmental Impact Report

In addition to this introduction, the Final PEIR contains the following chapters:

- **Chapter 2—Master Responses: Discussions of Recurring Themes**. This chapter contains comprehensive responses, and in some cases additional information, to address comments that were raised by multiple individuals, groups, or agencies during the public comment period.

- **Chapter 3—Comments and Responses**. This chapter contains all written comments on the Draft PEIR forwarded to the Central Valley Water Board during the public comment period. In some cases, supporting literature was forwarded with comment letters. The supporting literature has not been reproduced in Chapter 3 but can be obtained by contacting Adam Laputz at the Central Valley Water Board's Rancho Cordova office (contact information is listed on the title page of this document). All comments with significant environmental points have been responded to in this chapter. Each comment letter is included, followed by responses to the comments contained in that letter. Where comments are similar to those received from others, the commenter may be directed to Chapter 2 for a comprehensive master response.
- **Chapter 4—Revisions to the Draft Program Environmental Impact Report**. This chapter contains revisions to the text of the Draft PEIR to update sections and make factual corrections where needed. The chapter is structured as errata to the Draft PEIR, with reference to page number. These errata can be inserted into the Draft PEIR to provide a complete record of the final text of the EIR.
- **Chapter 5—References Cited**. This chapter contains reference information for those citations and personal communications referred to in this Final PEIR.
- **Chapter 6—List of Preparers.** This chapter contains a list of those people who assisted in the preparation of this Final PEIR.

1.5 Restatement of Impacts

Careful review of public comment by the Central Valley Water Board did not result in determinations of any new significant impacts. Only one impact was determined to be incorrectly described in the Draft PEIR; the analysis of Alternative 1 in Chapter 5.9, Hydrology and Water Quality, was corrected to reflect a beneficial impact to groundwater quality. The impact was previously determined to have a less-than-significant impact with mitigation on groundwater quality. However, this determination was based on an improper conclusion that Alternative 1's failure to directly address groundwater quality through management practices should result in a finding of an adverse impact. As implementation of Alternative 1 would not lower groundwater quality below its baseline quality condition, assignment of an impact was incorrect. A correction has been made in Chapter 4, Revisions to the Draft Program Environmental Impact Report, of this Final PEIR, and the revised portion of the impact summary table is shown below.

Table 1-1. Summary of Impacts and Mitigation Measures for the Irrigated Lands Regulatory Program

Impact	Applicable Alternative	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
HYDROLOGY AND WATER QUALITY				
SWQ = surface water quality GWQ = groundwater quality				
HYD-1. Change in Quality of State Waters from Agricultural Discharge or Alteration of Hydrologic Patterns of Runoff or Infiltration	1	SWQ: Beneficial GWQ: Beneficial	SWQ: No mitigation is required. GWQ: No mitigation is required. Mitigation Measure HYD-MM-1: Develop and Implement a Groundwater Quality Management Plan	SWQ: – GWQ: –

1.6 Development of the Proposed Long-Term Irrigated Lands Regulatory Program

As stated in the Draft PEIR, each of the six CEQA alternatives was analyzed at an equivalent level of detail; neither the Draft nor Final PEIR sets forth a "proposed alternative." For the purpose of this Final PEIR, the Staff Recommended Alternative discussed and analyzed in the Draft PEIR, Appendix A, Draft Irrigated Lands Regulatory Program Long-Term Program Development Staff Report, is referred to in comment responses as Alternative 6.

Ongoing development of the Final Long-Term ILRP continues to be guided by the economic and environmental analyses, as well as the public comments received by the Central Valley Water Board. The programmatic nature of the Final PEIR allows the Board to combine elements of the six analyzed alternatives into a Recommended ILRP Framework (Recommended Framework) not directly analyzed in the Final PEIR. Adoption of this Recommended Framework by the Central Valley Water Board through resolution of the Board and CEQA findings will include a discussion of the environmental impacts of the Recommended Framework, as well as an explanation of how the Final PEIR provides adequate analysis of the Recommended Framework to comply with CEQA.

Chapter 2

Master Responses: Discussions of Recurring Themes

2.1 Introduction

This chapter discusses several subjects that were mentioned frequently in comment letters on the Draft PEIR. Each of the following sections summarizes the individual comments that refer to a single theme and provides a comprehensive discussion of that theme that serves as a "master response" to those individual comments. These master responses to groups of individual comments are being provided for two purposes:

- to simplify the responses to comments by avoiding unnecessary repetition in individual responses, and
- to address issues in a broader context than might be required by individual comments.

When issues are addressed in this broader context, the interrelationships between some of the individual issues raised can be better clarified; it is also possible to provide a single explanation of an issue that is more thorough and comprehensive than separate, narrowly focused responses would be. The following common comments and master responses are presented below.

1. Rationale for Selecting the Baseline Used in the EIR
2. Rationale for the Description of the No Project Alternative
3. Explanation for Location of the Staff Recommended Alternative (Alternative 6) in the Draft PEIR
4. Adequacy of the Analysis of Impacts Related to Alternative 6
5. Consistency of the ILRP with Nonpoint Source Policy and Antidegradation Policy
6. Feasibility, Legality, and Adequacy of Identified Mitigation Measures
7. Differences in the Level of Detail Required in the Impact Analyses of Program and Project-Level EIRs
8. Rationale for Excluding Detailed Discussions of Environmental Benefits and for Assuming the Alternatives would Produce Similar Environmental Benefits
9. Explanation of Adequacy of the Cumulative Impacts Analysis
10. Consistency of the Range of Alternatives in the EIR with the CEQA Guidelines
11. Consistency of the ILRP with Habitat Conservation Plans or General Plans
12. Justification for the Draft PEIR, Appendix A (Staff Report) Position that All Irrigated Agriculture Potentially Creates a Discharge of Waste that Could Affect the Quality of Groundwater
13. Justification and Legal Basis for the Alternative 6 Proposal for Time Schedules for Compliance with Water Quality Objectives
14. Adequacy of the Indirect Effects Analysis, Including the Effects of Agricultural Land Going out of Production and Other Uses Being Implemented
15. Consideration of Carbon Sequestration from Irrigated Agriculture

16. Adequacy of the Greenhouse Gas Emissions and Global Warming Analysis
17. Explanation Concerning the Disposition of Comments on the Economic Analysis Technical Memorandum
18. Explanation of Requirement to Monitor First Encountered Groundwater
19. Explanation of Groundwater Quality Management Plan Flexibility in Selecting Management Practices

2.2 Master Responses

2.2.1 #1: Rationale for Selecting the Baseline Used in the EIR

2.2.1.1 Comment Summary

A number of comments indicated that the baseline or existing conditions information contained in the Draft PEIR was "misrepresented" or was not provided in sufficient detail to support a full analysis of potential impacts. Some of the comments identified specific conditions that were not discussed in sufficient detail, including the cultural value of salmon in the Central Valley, the current level of surface diversions and groundwater pumping for agricultural irrigation, and the value of agricultural land for wildlife habitat. Those specific resource issues were addressed in individual responses to comments (Chapter 3, Comments and Responses).

2.2.1.2 Response

The State CEQA Guidelines (Title 14 California Code of Regulations [CCR]), at Section 15125(a), state that

> An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant.

In 2004, in response to this directive, and following the issuance of the Notice of Preparation and completion of the first set of scoping meetings for the ILRP PEIR, the Central Valley Water Board began compiling a record of environmental conditions within its jurisdiction. In 2008 the information collected was published in the *Irrigated Lands Regulatory Program Existing Conditions Report* (ICF Jones & Stokes 2008) (ECR). The ECR was made available to the public through the Central Valley Water Board website. In March and April 2008, the Central Valley Water Board held a second set of scoping meetings.

The existing conditions information included in Chapter 4, Environmental Setting, and Chapter 5, Environmental Impacts and Mitigation Measures, of the Draft PEIR generally summarize the water quality, hydrology, and land use information from the ECR. Existing conditions information for other resources analyzed in the Draft PEIR is also general because of the large geographic area covered by the regulatory program and the programmatic nature of the impact analysis. The Central Valley Water Board has determined that, although presented in general terms, the existing conditions information is presented in sufficient detail to be used as the baseline for determining the potential

effects of the regulatory program and subsequent changes in agricultural practices associated with the changed regulatory approach. Quantitative information requested by some comments, including the amount of surface water diverted and groundwater pumped for agricultural irrigation, were not included in the ECR or Draft PEIR because this information is not reasonably obtainable as it was not collected and reported by the agricultural industry on a comprehensive and uniform basis. As stated in Section 4.1 of the Draft PEIR, additional resource-specific setting information beyond that included in Chapter 4 is included in the text of Chapter 5 so that the setting is closely associated with the impact analysis of each resources topic. This placement of the additional resource-specific information is designed to facilitate the reader's understanding of the material.

Because the EIR is a programmatic CEQA document analyzing the effects of a Central Valley-wide regulatory program, the existing conditions/baseline information also includes the regulatory conditions that existed at the time CEQA scoping was conducted. The Draft PEIR does not provide a detailed description of resources or values for which implementation of the proposed regulatory changes do not have the possibility to cause a significant effect on the environment. Those resources and values are listed in the Draft PEIR, Chapter 1, Summary, on page 1-8.

2.2.2 #2: Rationale for the Description of the No Project Alternative

2.2.2.1 Comment Summary

Several comments indicated that the No Project Alternative was improperly defined in the Draft PEIR. The comments stated that it was incorrect under CEQA to define the No Project alternative as a continuation of the existing irrigated lands waiver program. Instead, the comments suggested that the No Project alternative should assume that the Central Valley Water Board would take no action to extend the current waiver program and the program would end in June 2011. Only one of the comments included speculation on what regulatory role the Central Valley Water Board would have after the current waiver expires. That comment suggested that the regulatory program would revert to individual waste discharge requirements (WDRs). The comments further stated that, given this misinterpretation of what the No Project alternative should entail, the Draft PEIR was fundamentally flawed and a revised Draft PEIR should be prepared with a properly defined No Project Alternative.

Several of the comments also indicated disagreement with a statement in the Draft PEIR that an extension of the current waiver may be ministerial in nature. It was stated that the Central Valley Water Board's decision to extend the waiver would be a discretionary action and would have to occur in the course of a public meeting.

2.2.2.2 Response

The State CEQA Guidelines (Title 14 CCR) at Section 15126.6(e)(3)(A), state: "When the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the 'no project' alternative will be the continuation of the existing plan, policy or operation into the future. Typically this is a situation where other projects initiated under the existing plan will continue while the new plan is developed. Thus, the projected impacts of the proposed plan or alternative plans would be compared to the impacts that would occur under the existing plan." The State CEQA Guidelines, at Section 15126.6(e)(3)(C), further state

> …the Lead Agency should proceed to analyze the impacts of the no project alternative by projecting what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

The Central Valley Water Board has determined that an appropriate interpretation of this section of the State CEQA Guidelines requires that the No Project Alternative for the proposed Long-term ILRP be defined as "the extension or renewal of the ongoing waiver, which would allow continuation of the existing program…" (Draft PEIR, Chapter 3, Program Description, page 3-4). The contention that "no project" should assume that the Central Valley Water Board would take no action on extending the current program (the existing conditional waiver program) assumes that CEQA equates "no project" with no action, which contradicts the directive of Section 15126.6 of the State CEQA Guidelines (as presented above). The Central Valley Water Board believes it is reasonable to expect in the foreseeable future that if a proposed new Long-term ILRP is not adopted, the Central Valley Water Board would extend the existing program until that time when a new program was adopted. None of the cases cited by comments defeat the Draft PEIR's position on the No Project Alternative.

Additionally, Title 14 CCR Section 15126.6[e][1] states that "the purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." Consistent with this guideline provision, the approach to the No Project Alternative taken in this Draft PEIR best serves the purpose of allowing the Central Valley Water Board to compare the impacts of revising the ILRP with those of continuing the existing program. It should be emphasized that, even if the current regulatory program for irrigated agriculture were allowed to expire at the end of June 2011, its expiration would not lead to an absence of regulation of irrigated agriculture. Agricultural dischargers, as persons "discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state," would have the ongoing obligation under California Water Code Section 13260 to file a Report of Waste Discharge, and the Central Valley Water Board would need to issue individual or general WDRs to regulate the discharges or adopt a new waiver. As such, designating the scenario of waiver expiration as the no project alternative, in addition to being contrary to a reasonable reading of the State CEQA Guidelines, would result in the creation of an amorphous alternative incapable of providing a meaningful point of comparison of the impacts of moving forward on the project.

The Central Valley Water Board has not stated that the "no project" alternative would involve no future discretion on its part. The Central Valley Water Board will have to take some action before a long-term program is implemented, as it is likely to take up to one year to develop the implementing mechanisms needed to put the details of the Long-term ILRP (i.e., general orders, WDRs, waivers of requirements) in place. The action supported by this PEIR is to provide Central Valley Water Board with direction on developing the ongoing program's implementing measures. The existing conditional waiver will expire in June 2011, so some action will be necessary. However, the Central Valley Water Board believes that, under the terms of the Porter Cologne Water Quality Control Act (Porter Cologne) and its own policies, it is required to continue a regulatory program for discharges of waste from irrigated agricultural lands and that it cannot simply let agricultural discharges go unregulated while it develops and considers the details of a new long-term regulatory program. While the term "ministerial" was intended to capture this position, it is acknowledged that the use of the term is confusing and it has been removed from the text. See Chapter 4, Revisions to the Draft Program Environmental Impact Report, page 4-2 in this Final PEIR.

2.2.3 #3: Explanation for Location of the Staff Recommended Alternative (Alternative 6) in the Draft PEIR

2.2.3.1 Comment Summary

A number of comments stated that it was inappropriate, misleading, and contrary to CEQA case law to include the staff's recommended program alternative (referred to in the Final PEIR as Alternative 6) in an appendix to the Draft PEIR rather than in the main body of the Draft PEIR. Comments indicated that the Draft PEIR did not provide adequate reference to the staff alternative, and that inclusion of the alternative in an appendix made it difficult for readers to compare the staff alternative with the other five project alternatives. Several comments mentioned that the staff alternative had not been developed and approved through the lengthy stakeholder process undertaken to develop the other alternatives and that the staff unfairly focused efforts on this new alternative. Comments also stated the opinion that it was a violation of CEQA and due process to "arbitrarily" develop Alternative 6 from pieces ("mixing and matching") of the other alternatives.

2.2.3.2 Response

The process by which the Alternative 6 was developed, analyzed, and made available for decisionmaker and public consideration is in keeping with the best practices and the purpose and intent of the CEQA process. Alternative 6 was developed following a thorough review of the many regulatory process options available to the Central Valley Water Board to reduce the effects of discharges from agricultural lands to the waters of the state. The alternatives development process was shared with a broad representation of agricultural and public interest stakeholders (the Stakeholder Advisory Workgroup or Workgroup) assembled by the Central Valley Water Board and engaged over an extended time period (refer to the *Proposed Long-Term Irrigated Lands Regulatory Program Alternatives* [Central Valley Regional Water Quality Control Board and ICF Jones & Stokes 2009] report that was developed through this process).

Once this preliminary range of alternatives had been evaluated for potential environmental and economic effects through the Administrative Draft PEIR and the economic analysis of the ILRP alternatives technical memorandum, and following requests from stakeholders to provide more detail regarding the basic elements of the program options, the Central Valley Water Board crafted a recommended alternative using the "mix and match" approach of combining elements of several of the alternatives analyzed in the Draft PEIR. In doing so, the Central Valley Water Board went beyond CEQA's requirements. CEQA requires that a draft EIR include a project description, including identification of the location and boundaries of the project, a statement of objectives with clarification on the underlying purpose of the project, a general description of technical, economic, and environmental characteristics of the project, and a statement briefly describing the intended uses of the EIR (State CEQA Guidelines Section 15124). CEQA also requires the presentation of a reasonable range of alternatives that meets most of the project objectives, are potentially feasible, and would avoid or substantially lessen any potentially significant effects of the proposed project (State CEQA Guidelines Section 15126.6). CEQA does not require identification of a preferred project.

Moreover, Alternative 6 was crafted to avoid or minimize environmental and economic effects of the other alternatives where possible, to be consistent with the legal mandates of the Central Valley Water Board, and to include added detail to its essential elements. This process of developing and

modifying a proposed project based on potential effects is clearly in the spirit of the CEQA process. The State CEQA Guidelines state that a range of reasonable alternatives be considered in an EIR and that "There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason. "(State CEQA Guidelines Section 15126.6[a]). The Central Valley Water Board approach to use "mixing and matching" of various elements of the other alternatives to develop a recommended alternative is common practice for developing a proposed action, and is considered by the Central Valley Water Board to be consistent with the rule of reason included in the State CEQA Guidelines at Section 15126.6(f) and CEQA case law. In the context of project approval, the courts have found that the lead agency is not required to grant "blanket approval" of the proposed project described in the EIR.

> CEQA does not handcuff decision-makers . . . The action approved need not be a blanket approval of the entire project initially described in the EIR. If that were the case, the informational value of the document would be sacrificed. Decision-makers should have the flexibility to implement that portion of a project which satisfies their environmental concerns (*Dusek v. Redevelopment Agency* [1985] 173 Cal. App. 3d 1029, 1041; *see also Sierra Club v. City of Orange* [2008] 163 Cal.App. 4th 523, 533 [citing *Dusek*]; *Sequoyah Hills Homeowners Ass'n v. City of Oakland* [1993] 23 Cal.App.4th 704, 716 (upholding findings as adequate on the basis that reasonable inferences could be drawn from findings on related issues).

This earlier effort to indicate a proposed direction for the program enables earlier and greater public disclosure. As long as all of the elements of the approved project or program have been analyzed in the EIR and the new assemblage of pieces does not create significant adverse effects that have not been discussed in the EIR, this hybrid alternative described in the Draft PEIR appendix can be approved with no additional CEQA consideration. The findings associated with approval of the final project can clearly recognize the disposition and, if needed, the mitigation required to offset any adverse effects.

Further, Alternative 6, although developed concurrently with the administrative draft of the PEIR, was incorporated into the Draft PEIR and circulated with the Draft for public and agency review. The location of this alternative and its analysis is clearly indicated in the introduction to Chapter 3, Program Description, on page 3-1 of the Draft PEIR. The ability of the decisionmaker and the public to compare the environmental merits and deficiencies of Alternative 6 to the other alternatives was clearly considered and effectively supported by making those comparisons on pages 171–173 in Draft PEIR Appendix A, which is, in fact, a part of the Draft PEIR and was circulated with the Draft PEIR. Commenters' reliance on *Vineyard Citizens for Responsible Planning v. City of Rancho Cordova* (2007) 40 Cal.4th 412, for the supposed proposition that the location of Alternative 6 in the appendix constitutes a violation of CEQA law is misplaced, as *Vineyard* only stands for the proposition that key data cannot be "buried in an appendix" in a manner that a "reader . . . could not reasonably be expected to ferret out." Far from burying the discussion of Alternative 6 in an appendix, the Draft PEIR specifically calls out and highlights the discussion of Alternative 6 in the Appendix, and that discussion, in turn, is based on full disclosure of significant impacts and potential mitigation in the body of the Draft PEIR.

2.2.4 #4: Adequacy of the Analysis of Impacts Related to Alternative 6

2.2.4.1 Comment Summary

A number of comments indicated that the Draft PEIR did not contain an analysis of the effects of the staff recommended alternative (referred to in the Final EIR as Alternative 6). Other comments recognized that there was an impact analysis contained in Appendix A of the Draft PEIR, but indicated that the analysis did not provide the detail necessary to fully consider the differences between the various program alternatives. Other comments stated that it was inappropriate to include the impact analysis in an appendix. Finally, a concern was also voiced that Alternative 6 was composed of elements of several alternatives, and the unique combined effects of those elements were not considered as a unit.

2.2.4.2 Response

The decision and the rationale for including a description of Alternative 6 in Appendix A of the Draft PEIR are discussed in Master Response 3.

As stated in Master Response 3, the Central Valley Water Board did include the description and analysis of Alternative 6 within the Draft PEIR. The discussion of Alternative 6 makes it clear to the reader that the alternative's significant environmental impacts are essentially identical to those of Alternatives 2–5; the combined effects of Alternative 6 are listed on pages 171 and 172 of Draft PEIR, Appendix A. Thus, full disclosure of all impacts associated with Alternative 6 has been made within the Draft PEIR. The impact analysis is contained on pages 130–136 and 171–173 of Draft PEIR, Appendix A. Pages 130–136 summarize the detailed analysis of the five program alternatives contained in Draft PEIR Chapters 5, Environmental Impacts and Mitigation Measures, and 6, Cumulative and Growth-Inducing Impacts, and refer the reader to that more detailed information. Draft PEIR, Appendix A, pages 171–173 provide a description and comparison of the effects of the Alternative 6 as they relate to the other five alternatives.

As Alternative 6 is a combination of elements of Alternatives 1 through 5 described and analyzed in detail in other parts of the Draft PEIR, the significant impacts of Alternative 6 are fully disclosed to the public as required by CEQA in the Draft PEIR. This is in keeping with the practice of developing a proposed action from elements of alternatives analyzed in EIRs, as described and supported in Master Response 3. As Alternative 6 does not result in an effect on the environment that was excluded from the EIR, the analysis of that alternative within the Draft PEIR is adequate.

2.2.5 #5: Consistency of the ILRP with Nonpoint Source Policy and Antidegradation Policy

2.2.5.1 Comment Summary

Comments asserted that the Long-term ILRP alternatives are in conflict with the state's Antidegradation Policy and the Nonpoint Source (NPS) Policy. Other comments expressed concern that the Draft PEIR misrepresents relevant legal standards by suggesting that the application of the Antidegradation Policy is triggered by the ILRP simply because it will authorize agricultural discharges to surface and groundwater to continue.

2.2.5.2 Response

Nonpoint Source Policy

The Long-term ILRP would regulate waste discharges from irrigated agricultural lands to state waters as a NPS program. Accordingly, the Long-term ILRP must meet the provisions of the State Water Resources Control Board's (State Water Board's) NPS Policy. Under the NPS Policy, the Central Valley Water Board must find that the ILRP will promote attainment of water quality objectives. The ILRP also must meet the requirements of five key structural elements. The NPS Policy is described in Section IV.C, Nonpoint-Source Program, of the Draft PEIR, Appendix A, page 54. In addition, the Draft PEIR, Appendix A Sections IX, Evaluation of Long-Term Program Alternatives, and XI, Evaluation of Recommended Long-Term Irrigated Lands Regulatory Program, evaluate the consistency of each of the proposed alternatives with the requirements of the NPS Policy (Draft PEIR, Appendix A, page 107 and 165, respectively).

The Draft PEIR, Appendix A evaluation found that Alternatives 1–6 all meet the requirements of NPS Policy Key Element 1. This is mainly because the element requires, in part, that the NPS control implementation program's ultimate purpose be explicitly stated (other portions of this key element are evaluated as part of other sections, see Section IX.A.3, Draft PEIR, Appendix A, page 108, for more information). The purpose of the Long-term Program is explicitly stated in the ILRP Goals and Objectives and the objectives include restoring and maintaining appropriate beneficial uses by ensuring that all state waters meet water quality objectives. As given in the Goals and Objectives, the ultimate purpose of all ILRP alternatives is the same. Accordingly, all program alternatives are consistent with this requirement.

In general, NPS Policy Key Element 2 requires that an NPS implementation program include a description of the management practices expected to be implemented to ensure attainment of the program's purpose (i.e., goals and objectives), and the process used to select and ensure proper implementation of management practices. Successful implementation of water quality management measures will work toward achieving the goals and objectives of the Long-term ILRP. The Draft PEIR and Draft ILRP Economics Report discuss the types of management practices that would likely be implemented for all of the alternatives. ILRP components that would work to achieve consistency with Key Element 2 include water quality management plans to protect surface and groundwater and tracking of implemented management practices. Alternatives 2–6 are consistent with Key Element 2 because they include requirements to develop surface and groundwater quality management plans and mechanisms to ensure implementation of management practices (e.g., tracking, inspections).

The State Water Board's NPS Policy describes that: "A first step in the education process offered by these [NPS] programs often consists of discharger assessment of their lands or operations to determine NPS problems, followed by development of a plan to correct those problems." The first step assessment of lands or operations to determine NPS problems can be accomplished by the development of individual farm water quality management plans (FWQMPs) (required under Alternatives 3, 4, and 5). Regional water quality plans have also been considered (Alternatives 1, 2, and 6). One of the features of the regional plans is for the managers of irrigated agricultural operations to identify the management practices they are implementing to protect water quality, which would require the manager to assess his or her operation. Regional water quality management plans can be used to assess irrigated agricultural operations, provide grower education, and develop a description of the types of practices that need to be implemented. With

appropriate oversight, both regional and individual water quality plan approaches can be utilized to meet the NPS Policy requirement of assessing land/operations and planning to correct water quality problems. Regional management has been selected in Alternative 6 considering the need to coordinate with other programs, costs, and the limitations of the Board (e.g., there are an estimated 7 million acres of land and over 30,000 potential operations).

If the Central Valley Water Board determines that it is necessary to allow time to achieve water quality requirements in an NPS program, Key Element 3 requires that the program include a time schedule with quantifiable milestones. In Sections IX.A.3 and XI.A.3 of the Draft PEIR, Appendix A, Alternatives 2–6 were found to be consistent with Key Element 3 because time schedules would be included in surface and groundwater quality management plans. Alternative 6 also includes specific time schedules for working to achieve water quality objectives in priority areas. Alternative 1 is not consistent with this element because there are recognized exceedances of groundwater quality objectives (e.g., nitrates), and the alternative would not require groundwater protection requirements or a time schedule for working toward achieving water quality objectives.

Key Element 4 requires that an NPS program include feedback mechanisms so that the Central Valley Water Board, regulated operations, and the public can determine whether the program is effective. In Sections IX.A.3 and XI.A.3 of the Draft PEIR, Appendix A (Draft PEIR, Appendix A), only Alternatives 4–6 were found to be fully consistent with this element. This is because these alternatives include surface and groundwater quality monitoring to provide feedback on whether the ILRP is meeting goals and objectives. These alternatives include two different types of feedback mechanisms. Alternatives 4 and 6 include regional monitoring, while Alternative 5 includes individual monitoring. Both individual and regional monitoring approaches are considered acceptable feedback mechanisms for the ILRP (see Draft PEIR, Appendix A, pages 94–95).

While both regional and individual monitoring can be effectively utilized to provide ILRP feedback mechanisms, regional monitoring has been selected in Alternative 6. The benefits and drawbacks of regional monitoring compared with farm-based monitoring have been considered in the Draft PEIR, Appendix A. As described on page 95 of the report:

> …the waste discharge characteristics of runoff from each farm would be determined [under farm-based monitoring]. However, with this approach, it will be difficult to characterize the actual effects agricultural waste discharges are having on receiving water bodies. A good example is where a farm discharges to a large river. Farm-based monitoring would not necessarily provide enough information to tell whether the discharge is affecting the river's water quality.

Farm-based monitoring alone will not answer whether agricultural discharges are affecting receiving waters, e.g., effects of multiple bio-accumulating sources on a single waterway. It is also important to recognize that water quality objectives apply within receiving waters, not within farm fields or in effluent from management practices. Therefore, monitoring edge of field discharge or effluent management practices as the primary monitoring approach would not provide the information necessary to evaluate whether irrigated agricultural operations are meeting water quality objectives. In order to determine whether individual agricultural tailwater discharges are causing or contributing to an exceedance of a water quality objective, information would be needed to tell whether the tailwater reaches a waterway, mass flow of the waterway, the concentration of wastes already in the waterway, and the actual mass discharged must all be known. Under the farm-based monitoring scenario, this type of analysis would be necessary for over 7.5 million acres of irrigated agricultural operations—leading to high costs (see Alternative 5 monitoring costs,

page 122 of the Draft PEIR, Appendix A) and Board staffing requirements (see pages 119 and 120 of the Draft PEIR, Appendix A) when compared with regional monitoring.

The ILRP is a NPS program and cannot be easily compared with point source waste discharge program requirements where a single effluent location can be determined and controlled. Feedback monitoring needs to indicate how changes in management are impacting the overall health of waters receiving agricultural waste discharges. Regional monitoring can be used to determine if water quality is improving to provide program feedback as required by the NPS Policy, and provide information to evaluate whether implemented practices, on a macro—or watershed scale— are protective of beneficial uses and achieving best practicable treatment or control where required under the Antidegradation Policy (see pages 107–116 and 165–168 of the Draft PEIR, Appendix A). However, the Board agrees that direct monitoring of discharge from fields can help address important issues that regional monitoring efforts cannot, such as the efficacy of particular management practices; the characteristics of discharge from specific commodities; and evaluating the impacts of individual dischargers who are not part of a regional effort or are not in compliance with regional orders. The Central Valley Water Board will continue to consider the balance of costs of monitoring (whether regional or site-specific) with the benefits to be gained from that information as the Long-term Program is implemented and any orders are issued.

Key Element 5 requires that the Central Valley Water Board make clear, in advance, the potential consequences for failure to achieve an NPS control implementation program's stated purposes.

Compliance with this element is the responsibility of the Central Valley Water Board. The potential consequences for failure to achieve the Long-term ILRP's stated purpose would be the same regardless of the chosen program alternative and would include the following steps:

1. Require, in an iterative process, additional monitoring information, and/ or management practices where water quality objectives are not being met.
2. Specify enforcement action where an iterative process is unsuccessful, program requirements are not met, or time schedules are not met.
3. Require submittal of a report of waste discharge (ROWD), by operators, to work individually with the Central Valley Water Board.

As described on page 167 of the Draft PEIR, Appendix A, the Central Valley Water Board will ensure consistency with Key Element 5 by including the above potential consequences in waivers and WDRs adopted to implement the ILRP.

Antidegradation Policy

The purpose of the discussion of the Antidegradation Policy in the Draft PEIR, Appendix A is to evaluate the ILRP at a programmatic level for consistency with the legal requirements of the Board. The analysis is therefore by necessity at a general, programmatic level.

While presenting an antidegradation discussion at a programmatic level, the antidegradation discussion does not posit that the antidegradation policies are triggered simply because the ILRP authorizes agricultural discharges to surface and groundwater to continue. Rather, the discussion in the Draft PEIR, Appendix A puts forth that the ILRP will encompass some discharges with potential to degrade high quality waters and therefore compliance with the antidegradation policies at a programmatic level must be analyzed. Available data show that currently existing quality of certain water bodies is better than the water quality objectives. Additionally, whether or not a water body is

high quality is established on a constituent specific basis; therefore, even if a water body is degraded with regard to some constituents, it may be high quality with regard to other constituents. State Water Board Order No. WQ 91-10. Finally, historic water quality may in some circumstances be a more appropriate measure of whether a water body is high quality, if past degradation was not consistent with the applicable antidegradation requirements (State Water Board Order No. WQ 2009-0007 at 12). The fact that the ILRP, as a whole, may lead to improvement in water quality, does not change the conclusion that some discharges permitted under the program may cause degradation of high quality waters.

Because the ILRP will encompass some discharges with potential to degrade high quality waters, the Long-term ILRP must, at a programmatic level, meet the provisions of state and federal antidegradation policies. Applicable antidegradation provisions are described in the Draft PEIR, Appendix A, Section IV.E, State Antidegradation Policy. That section explains that, at the programmatic level, the Long-term ILRP should be consistent with Resolution 68-16 and related policies by ensuring that:

- At a minimum, irrigated agricultural waste discharges must be addressed in a manner that achieves and maintains water quality objectives and beneficial uses.
- Because it is expected that there may be degradation of some Central Valley high quality waters receiving irrigated agricultural discharges, maximum benefit to the people of the State must be shown.
- The requirements implementing the Long-term ILRP must result in use of Best Practicable Treatment or Control (BPTC) where irrigated agricultural waste discharges may cause water degradation of high quality waters; where waters are already degraded, the requirements must result in pollution controls that reflect the “best efforts” approach.

The term BPTC is found in Resolution 68-16 and is not defined in the Resolution; nor is it defined in the California Water Code. Promulgated federal technology standards may inform BPTC, but BPTC is not derived from these standards. The State Water Board has evaluated what level of treatment or control is technically achievable using "best efforts” and this approach has informed the BPTC analysis. See State Water Board Order Nos. WQ 81-5, WQ 82-5, WQ 90-6, and WQ 2000-07. The State Water Board has stated: “one factor to be considered in determining BPTC would be the water quality achieved by other similarly situated dischargers, and the methods used to achieve that water quality.” (See Order WQ 2000-07, at pp. 10-11). A “Questions and Answers” document for Resolution 68-16 (February 16, 1995), states that, to evaluate the BPTC method, the discharger should compare the proposed method to existing proven technology; evaluate performance data (e.g., through treatability studies); compare alternative methods of treatment or control; and/ or consider the method currently used by the discharger or similarly situated dischargers.

As clarified in revisions to Section IV.E in response to comments received on the BPTC standard, even where a water body can be shown not to be of high quality, imposition of a standard comparable to BPTC is within the authority of the Central Valley Water Board. See Chapter 4, Revisions to the Draft Program Environmental Impact Report, page 4-20 in this Final PEIR. In precedential State Water Board decisions, the Board is directed to set limitations more stringent than the Basin Plan objectives if it can be shown that those limitations can be met using ”best efforts”, a standard that has not been distinguished from BPTC (State Water Board Order No. WQ 81-5; *see also* State Water Board Orders Nos. WQ 79-14, WQ 82-5, WQ 2000-07).

The Draft PEIR, Appendix A lays out a maximum benefit analysis that concludes that continued waste discharge associated with irrigated agricultural operations that may cause degradation of high quality waters is, at a programmatic level, consistent with the maximum benefit to the people of the State. Nevertheless, it is acknowledged that, at the programmatic level, it is not feasible to conduct a conventional analysis of waste loadings, assimilative capacities, and socioeconomic concerns to determine consistency with maximum public benefit for every Central Valley irrigated agricultural waste discharge. Instead, the following programmatic approach has been developed for practically applying antidegradation provisions for a Central Valley ILRP:

> Implementation of the program must work to achieve site-specific antidegradation and antidegradation-related requirements through iterative implementation of BPTC/ "best efforts" and representative monitoring (i.e., where monitoring indicates degradation, BPTC would evolve to prevent such degradation).

This iterative process is shown graphically in Figure 21 of the Draft PEIR, Appendix A. (Refer to revisions to Figure 21 in Chapter 4, Revisions to the Draft Program Environmental Impact Report, page 4-24 of this Final PEIR) and is intended, over time, to bring all water bodies accepting agricultural wastes into compliance with water quality objectives (where agriculture causes or contributes to the exceedance) and evaluate and prevent degradation from occurring. In Sections IX.A.4 and XI.A.4 of the Draft PEIR, Appendix A, each of the alternatives is evaluated against the above approach for implementing antidegradation requirements. In this evaluation, Alternatives 4–6 were found to be fully consistent with antidegradation provisions. Alternatives 2 and 3 were found to be partially consistent with antidegradation requirements, and Alternative 1 is not consistent.

2.2.6 #6: Feasibility, Legality, and Adequacy of Identified Mitigation Measures

2.2.6.1 Comment Summary

Comments reflected concern that the mitigation measures contained in the Draft PEIR are not feasible because of a belief the Central Valley Water Board lacks the means and authority to insure the measures are implemented. Further comments opined that the mitigation measures improperly create obligations for growers to comply with legal mandates (such as CEQA compliance and conducting delineations for waters of the United States) and mitigation when the change in management practice that may stimulate the need for mitigation is ministerial (non-discretionary).

2.2.6.2 Response

State CEQA Guidelines Section 15126.4 directs lead agencies to describe feasible mitigation measures that could minimize significant adverse impacts. Section 15126.4(a)(2) specifically states that mitigation measures for impacts resulting from a plan or policy, such as the Long-term ILRP, can be incorporated into the plan or policy. In order to be considered feasible, a mitigation measure must be fully enforceable through permit conditions, agreements, or other legally binding instruments.

Draft PEIR Chapter 5, Section 5.1.2, Significance Determinations and Mitigations, discusses the ILRP approach to mitigation, stating that the Central Valley Water Board will enforce the identified mitigation through inclusion of measures in the ILRP enforcing mechanism, which will be a legally

binding instrument. These measures are likely to be included in prohibitions, discharge specifications or provisions in the enforcing mechanism (WDRs, waivers). This is consistent with the direction of State CEQA Guidelines Section 15126.4(a)(2).

The Central Valley Water Board is tasked with overseeing discharges to waters of the state from irrigated agricultural operations. Growers who choose to participate in the ILRP as a method of receiving regulatory authority for those discharges are bound by the terms of its implementing mechanism (i.e., WDRs or waivers), including mitigation measures in the form of prohibitions, discharge specifications or provisions described therein. In this way, the mitigation measures proposed for the ILRP are feasible and binding on program participants. However, growers who believe they cannot comply with the program's mitigation requirements may opt out of the ILRP and seek individual regulatory coverage from the Central Valley Water Board, perhaps in the form of individual WDRs. The issuance of individual WDRs is a discretionary action for the Central Valley Water Board, providing for the CEQA review. In these cases, the individual grower may work with the Central Valley Water Board to develop alternative mitigation or consider undertaking individual CEQA review to deal with potentially significant effects of changes in management practices. Thus, the mitigation measures required under the program do not go beyond the powers of the Central Valley Water Board and are not legally infeasible.

Specifically, public comment focused on the feasibility of the mitigation identified by the Central Valley Water Board to address potential impacts to sensitive biological resources. Under all six ILRP alternatives, growers would not be mandated by the ILRP to implement particular water quality management practices. The ILRP alternatives assume that the choice of management practices needed to reach water quality goals will be left to the growers. However, when a management practice selected by a grower to achieve compliance with the terms of the ILRP enforcing mechanism has the potential to create significant impacts, mitigation will be required to maintain coverage under the implementing mechanism.

First and foremost, Chapter 5.7, Vegetation and Wildlife, Section 5.7.6, Mitigation, directs growers that desire coverage under the ILRP to mitigate potential management practice impacts through avoidance of management practices that interfere with or harm identified sensitive resources. However, in the unlikely instance that avoidance is not possible, and a grower and the Board agree that an impactful management practice must be implemented to meet the terms of the ILRP implementing mechanism, such impacts are indirect effects of the ILRP that must be mitigated. It is unknown where or if a significant impact may occur as a result of implementing the Long-term ILRP because of the programmatic level of analysis contained in the Draft PEIR, so it is not possible to draft project-level mitigation for this possibility. If the Central Valley Water Board determines those specific impacts have not been disclosed to the public through the CEQA process, further CEQA compliance may be required.

Public comment also challenged the Draft PEIR's recognition of growers' responsibility to comply with other environmental statutes in carrying out mitigation measures, such as the federal Endangered Species Act (ESA) and California Endangered Species Act (CESA), and the federal Clean Water Act (CWA). Specifically, the need for grower cooperation with the federal resource agencies and the U.S. Army Corps of Engineers (USACE) when complying with the mitigation requirements of the ILRP was challenged as exceeding the Central Valley Water Board's legal authority.

Throughout the Draft PEIR, mention is made of a grower's need to comply with these and other statutory schemes in his or her compliance with the ILRP. This is not a duty placed upon growers by

virtue of their participation in the ILRP. Regardless of a grower's participation, compliance with environmental regulations such as ESA and CWA is the obligation of all growers where relevant. The ILRP neither creates nor relieves such an obligation.

2.2.7 #7: Differences in the Level of Detail Required in the Impact Analyses of Program and Project-Level EIRs

2.2.7.1 Comment Summary

Widely varied comments expressed concern that several areas of the program-level environmental analysis did not provide quantitative discussions of specific, on-the-ground impacts.

2.2.7.2 Response

The State CEQA Guidelines recognize the varying roles that program and project-level EIRs play in CEQA compliance at Section 15168. A Program EIR is appropriate, where, as with the ILRP, a series of actions can be characterized as one large project and are related "as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effect which can be mitigated in similar ways" (State CEQA Guidelines Section 15168[a][4]).

Program EIRs can be detailed enough to support all future program actions. State CEQA Guidelines Section 15168(c)(2) and (c)(5) state:

> If the agency finds that pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required. . . . With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.

However, Program EIRs may alternatively act to simplify future CEQA compliance by narrowing the range of issues that must be analyzed at a future date, "If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration" (State CEQA Guidelines, Section 15168[c][1]). Specifically, a program EIR can support a subsequent initial study, or "be incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program as a whole" (State CEQA Guidelines, Section 15168[d]).

The State CEQA Guidelines at Section 15146 also recognize that the level of specificity contained in an EIR should correspond to the level of detail provided for the project or program that is being analyzed in the EIR.

A reduced level of detail is accordingly appropriate at the beginning of the analysis of a program if limited details are available. The California Supreme Court makes this issue clear in its discussion in *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings*, 184 P.3d 709, 715 (Cal. 2008):

> In addressing the appropriate amount of detail required at different stages in the tiering process, the CEQA Guidelines state that "[w]here a lead agency is using the tiering process in connection with an EIR for a large-scale planning approval, such as a general plan or component thereof . . . , the development of detailed, site-specific information may not be feasible but can be deferred, in many

> instances, until such time as the lead agency prepares a future environmental document in connection with a project of a more limited geographic scale, as long as deferral does not prevent adequate identification of significant effects of the planning approval at hand." (Cal. Code Regs., tit. 14, § 15152, subd. (c)). This court has explained that "[t]iering is properly used to defer analysis of environmental impacts and mitigation measures to later phases when the impacts or mitigation measures are not determined by the first-tier approval decision but are specific to the later phases." (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, [citation removed].)

Due to the broad, general nature of the ILRP alternatives, and the early stage of development of the implementing mechanisms, a programmatic level of environmental analysis is necessary and appropriate. If future actions undertaken to implement the ILRP (e.g. issuing WDRs or waivers) have the potential for new significant impacts, the Central Valley Water Board will undertake the appropriate CEQA compliance.

2.2.8 #8: Rationale for Excluding Detailed Discussions of Environmental Benefits and for Assuming the Alternatives would Produce Similar Environmental Benefits

2.2.8.1 Comment Summary

Comments focused on the Draft PEIR's failure to discuss which alternative presents the most environmental gain over present conditions. Comments also disputed the Draft PEIR's assumption that the six alternatives would result in substantially similar environmental impacts for the purpose of the analysis.

2.2.8.2 Response

The overarching focus and intent of the ILRP is to maintain and improve water quality. The program alternatives are expected to have largely beneficial effects to the physical environment. Commenters are reminded that the project analyzed in the Draft PEIR is not agricultural operations in the Central Valley; rather, existing agricultural operations are part of the baseline of the analysis (see discussion of baseline in Master Response 1). The ILRP alternatives include a number of management and eventual regulatory actions that are designed to identify and reduce the adverse effects of runoff or percolation of water from irrigated agriculture. The anticipated effects of all alternatives are beneficial to water quality, including groundwater, in that none of the six alternatives will worsen water quality. CEQA directs government agencies to disclose to the public the adverse effects of their discretionary actions. Although some EIRs do discuss the relative merits of alternatives, the focus required by CEQA is on potential negative or adverse effects. The Draft PEIR does not discuss in depth the relative degree of likely beneficial impacts of the ILRP alternatives.

From a programmatic level, the ILRP alternatives are founded on the reasonable presumption that growers will enact management practices to meet the Program objectives and the types of practices anticipated to be implemented do not vary across alternatives (except Alternative 1, which does not address discharge to groundwater). Thus, the alternatives have similar adverse and beneficial physical impacts. While it may be argued that the alternatives beneficial effects could vary based on comprehensiveness of monitoring and other factors, CEQA does not demand the Draft PEIR focus on this distinction. The purpose of the CEQA analysis is to assist the Central Valley Water Board in selecting a method to achieve the Program's goals with fewer significant adverse environmental

impacts. The primary distinctions in the alternatives lie in their implementing mechanisms, costs, and consistency with Central Valley Water Board policy and legal obligations, elements that the Board will consider in its decisionmaking. Thus, where alternatives result in different adverse impacts to resources, as in Agriculture Resources, such impacts are described. See Draft PEIR Chapter 5, Section 5.10, Agriculture Resources.

2.2.9 #9: Explanation of Adequacy of the Cumulative Impacts Analysis

2.2.9.1 Comment Summary

Several comments identified the discussion of cumulative impacts as inadequate, stating it does not provide a list of similarly situated projects with which the ILRP may have cumulatively considerable impacts.

2.2.9.2 Response

As described in the Draft PEIR Chapter 6, Cumulative and Growth-Inducing Impacts, the State CEQA Guidelines (Section 15130) dictate that an adequate discussion of significant cumulative impacts should contain the following elements:

- An analysis of related future projects or planned development that would affect resources in the project area similar to those affected by the proposed project; or a summary of projections contained in an adopted local, regional or statewide plan that describes or evaluates conditions contributing to the cumulative effect.
- A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available.
- A reasonable analysis of the cumulative impacts of the relevant projects. An EIR must examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

The State CEQA Guidelines (Section 15130[b]) also direct a lead agency to ensure its analysis of cumulative impacts be guided by "standards of practicality and reasonableness." Conducting this analysis in a feasible, meaningful way for the ILRP required that Central Valley Water Board move away from either a traditional list- or plan-based approach while taking the steps necessary to provide the public with valuable information concerning foreseeable cumulative impacts. This decision was due to the limitations of the Draft PEIR's programmatic approach and its primarily beneficial effects, as described in Master Response 8.

Typically, a program or project's impacts are identifiable or quantifiable by location, nature, and severity. In this instance, the ILRP's alternatives foreseeable impacts would result from the indirect effects caused by the actions and choices of growers concerning employment of management practices as growers seek regulatory coverage for discharges to waters of the state under the ILRP. These management choices may lead to impacts, the location, nature, and severity of which could vary widely across the Central Valley Water Board's jurisdiction. The same management practices would likely also lead to broad beneficial impacts. The Draft PEIR attempts to identify the possible nature of these impacts, but the lack of information concerning the impacts' locations does not allow the Board to make any practical or reasonable conclusions of the cumulative severity of those

impacts in light of other projects on a site-specific basis. Furthermore, this same challenge makes identification of related future projects or planned development speculative.

In order to provide practical information, the Board determined the likelihood of cumulative impacts by comparing foreseeable ILRP effects with known existing conditions, as well as with widely acknowledged issues of continuing environmental damage within the area of program influence. For example, as discussed in Subsection 6.2.2.5, if a management practice resulted directly or indirectly in the reduction in quality habitat and the take of individual listed plants or wildlife species, that impact could combine with other extensive human impacts from land conversion, water development, population growth, and recreation in the Central Valley to result in a potentially cumulatively considerable impact.

2.2.10 #10: Consistency of the Range of Alternatives in the EIR with the CEQA Guidelines

2.2.10.1 Comment Summary

Several comments indicated that the range of alternatives considered in the Draft PEIR should have been expanded. It was noted by one comment that a "reasonable range" of alternatives must meet two requirements: (1) it must include alternatives that could feasibly attain most of the program's objectives, and (2) it must provide for a substantial environmental advantage over the project proposal. The commenter contended that the impacts of the various alternatives were not sufficiently different to allow identification of an environmentally superior alternative by decision-makers. One commenter also suggested that the alternatives should have included an option that had lower costs than those contained in the Draft PEIR.

2.2.10.2 Response

The State CEQA Guidelines provide direction on selection of project alternatives at Section 15126.6. Section 15126.6(a) states "An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decisionmaking and public participation." The section further states that "There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason." The rule of reason is described at Section 15126.6(f) as follows: "The range of alternatives required in an EIR is governed by a 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice." The State CEQA Guidelines clearly designate the Lead Agency as the responsible party for selecting a range of alternatives and must publicly disclose its reasoning for selecting those alternatives.

With this guidance in hand, the Central Valley Water Board embarked on a broad and lengthy stakeholder participation process to develop, consider, and describe alternatives to be included in the Draft PEIR. The development of the Long-Term ILRP Stakeholder Advisory Workgroup (Workgroup) and its process of developing program goals, objectives, and alternatives are described in Draft PEIR, Appendix A, beginning on page 5. This Workgroup included a broad range of interests, including local government, industry, agriculture, and environmental/environmental justice from

throughout the Central Valley. The stakeholder participation process started in the fall of 2008 and concluded in August 2009 with an approved set of goals, objectives, and range of alternatives. The information developed by this Workgroup is included in the December 2009 *Proposed Long-Term Irrigated Lands Regulatory Program Alternatives* document, which is included as Appendix A of the Draft PEIR. The program alternatives presented in the 2009 report were subsequently used as the basis of the alternatives analysis in the Draft PEIR. The Central Valley Water Board believes this process thoroughly considered and developed a range of reasonable alternatives as required by the State CEQA Guidelines.

It is important to note that, while some comments suggest that the range of alternatives was not broad enough to select an environmentally preferred alternative, none suggested a specific additional alternative (that could not be constructed from the range of alternatives in the Draft PEIR), which would be less environmentally damaging. Consistent with its desire to provide the Board with a broad range of policy and implementation mechanism choices, the Central Valley Water Board and the Workgroup did not limit the selection of alternatives to just those that might reduce the adverse effects of the proposed regulatory program. In fact, the description of the program alternatives in Chapter 3, Program Description, of the Draft PEIR does not include a proposed or preferred program as a basis for comparing alternatives. Instead, the Draft PEIR describes alternatives in an equal level of detail; the impact analyses in Chapter 5, Environmental Impacts and Mitigation Measures, and Chapter 6, Cumulative and Growth-Inducing Impacts, also provide an equal level of detail for the alternatives. Because what is being considered is a broad program, the alternatives also include policy and implementation authority differences that are important for the Board to consider, not just environmental impact differences.

Chapters 5 and 6 of the Draft PEIR describe the differences in the type and degree of potential environmental effects that would occur under the different program alternatives selected by the Central Valley Water Board and the Workgroup. Because the goal of the Long-term ILRP is to reduce the effects of agricultural discharges to surface and groundwater, many of these differences are in the degree of beneficial effect rather than adverse effect. CEQA does not require a detailed comparison of the beneficial effects of project alternatives. The principal differences in adverse effect are related to the potential for loss of agricultural production (see Chapter 5, Section 5.10, Tables 5.10-2 through 5.10-6 on pages 5.10-9 through 5.10-13 in the Draft PEIR).

The Central Valley Water Board, as the CEQA Lead Agency for this PEIR, believes it has provided decisionmakers and the public with a range of reasonable alternatives that are capable of meeting most of the objectives of the program and enables a reasoned choice based on differences in environmental effect.

2.2.11 #11: Consistency of the ILRP with Habitat Conservation Plans or General Plans

2.2.11.1 Comment Summary

Several comments indicated that the Draft PEIR did not address the issue of program consistency with general, regional, and habitat conservation plans. The majority of these commenters felt that the program-induced conversion of irrigated agricultural land would be in conflict with the agricultural preservation policies of county general plans and habitat protection and mitigation requirements of existing habitat conservation plans within the project area.

2.2.11.2 Response

State CEQA Guidelines Section 15125(d) states:

> The EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans. Such regional plans include, but are not limited to, the applicable air-quality attainment or maintenance plan (or State Implementation Plan), area-wide waste treatment and water quality control plans, regional transportation plans, regional housing allocation plans, habitat conservation plans (HCP's), natural community conservation plans, land use plans for the protection of coastal zone, Lake Tahoe Basin, San Francisco Bay, and Santa Monica Mountains.

The ILRP would not create inconsistencies with local, regional, and state plans; any existing zoning for agricultural use or Williamson Act contracts; nor would it conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Program (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. As discussed in the Draft PEIR, the nature of specific changes in land use are influenced by myriad factors, making it speculative to assume what land use changes, if any, may result from the program. This is discussed in greater detail below.

Page 5.10-6 of the Draft PEIR states:

> It is important to note that that the terminology "lost from production" or "removed from production," as used in this draft PEIR and the Draft ILRP Economics Report, does not necessarily mean that the land no longer would be used to produce crops, only that it would not be used to produce the particular crop type in question. It is reasonable and logical to assume that, while some portion of the affected farmland would be converted to nonagricultural use, a majority of the lost acreage would not be converted to a nonagricultural use but instead would be used to produce a crop that would require lower compliance costs and generate sufficient revenue to stay in agricultural production.

Page 5.11-1 of the Draft PEIR goes on to explain that neither the location of potential land conversions nor the specific nature of said conversions can be identified, thus any analysis of such impacts would be unreasonably speculative. Most general plans contain objectives that discourage the conversion of agricultural lands to other uses and zoning is typically the primary tool used to reach such objectives. The Program does not call for land use change as an element of its implementation, and thus would not seek any zoning variances for implementation. Likewise, it does nothing to absolve a landowner of his or her obligation to comply with local regulations set forth in applicable local, regional, and state planning documents.

For the reasons stated above, inconsistencies with HCPs, general plans, or similar planning documents are not a significant concern and are not further addressed in the Draft PEIR.

For informational purposes, it is noted there are approved HCPs within the jurisdiction of the Central Valley Water Board that are large enough to be potentially affected by possible changes in agricultural land uses indirectly resulting from implementation of the ILRP:

- East Contra Costa County HCP/NCCP, a portion of which is in the project area.
- San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), all of which is in the project area.
- Natomas Basin HCP (Sacramento and Sutter Counties), all of which is in the project area.
- Metro Bakersfield HCP (Kern County), all of which is in the project area.

The Metro Bakersfield HCP does not cover species that are dependent on agricultural lands so this plan would not be affected by any changes in crop types or conversion of agricultural lands to other land uses associated with the ILRP.

The East Contra Costa County HCP/NCCP covers Swainson's hawk (*Buteo swainsoni*), which is dependent on agricultural lands for foraging habitat, particularly hay and other pasture crops. While some loss of crop types important to Swainson's hawk may occur in eastern Contra Costa County as growers respond to the proposed project, the HCP/NCCP does not depend on the availability of these crop types to maintain Swainson's hawk in the plan area. In that plan, Swainson's hawk populations are thought to be limited more by availability of breeding sites (riparian woodland and forest) rather than the availability of foraging habitat.

Swainson's hawk is also one of the primary covered species of the San Joaquin County HCP and the Natomas Basin HCP. Both plans also cover the giant garter snake (*Thamnophis gigas*), which is dependent in those areas on active rice farms.

The conservation strategy for the Natomas Basin HCP calls for the protection of several thousand acres of cropland and the restoration of additional lands to provide habitat for giant garter snake and Swainson's hawk. The plan also relies on the continued availability of rice and field crops for these species, respectively, outside of the preserve areas and within the Natomas Basin. However, as the location and extent of land use change in the Natomas Basin that may indirectly result from the ILRP is unknown, and depends on choices made by growers, the impact of such unknown change within this HCP is speculative and no impact can be assigned at the programmatic level.

The conservation strategy for the San Joaquin County HCP calls for the protection of thousands of acres of cropland, in addition to conservation of natural lands (grasslands, riparian habitats, and vernal pool habitats) to provide habitat for Swainson's hawk, giant garter snake, sandhill crane (*Grus canadensis*), burrowing owl (*Speotyto cunicularia*), loggerhead shrike (*Lanius ludovicianus*), and numerous other species partly or wholly dependent on agricultural lands. The program area covers almost the entire county. As mentioned above, however, as the location and extent of land use change within San Joaquin County that may indirectly result from the ILRP is unknown, the impact of such unknown change within this plan is speculative and no impact can be assigned at the programmatic level.

2.2.12 #12: Justification for the Draft PEIR, Appendix A (Staff Report) Position that All Irrigated Agriculture Potentially Creates a Discharge of Waste that Could Affect the Quality of Groundwater

2.2.12.1 Comment Summary

Several comments sought an explanation for the Draft PEIR's position that all irrigated agriculture potentially creates a discharge of waste that could affect the quality of groundwater. Comments included failure of the document to identify the source of discharge, as well as assertions that surface water irrigation runoff is not a discharge if it improves the water quality of the receiving water.

2.2.12.2 Response

California Water Code Section 13260(a)(1) requires that a ROWD be filed by, "Any person discharging waste, or proposing to discharge waste, within the region that could affect the quality of waters of the state, other than into a community sewer system." Page 143 of the Draft PEIR, Appendix A) includes the following discussion with respect to regulating potential waste discharges from irrigated agricultural operations to groundwater:

> Operations associated with irrigated agriculture involving the application of materials and constituents directly or indirectly to land may leach waste into groundwater, potentially causing degradation, or causing or contributing to exceedances of water quality objectives. Because all irrigated agricultural operations could affect groundwater quality, they have been considered in the scope of the Long-term ILRP. There may be cases where leaching of waste could not affect groundwater quality; however, this would be difficult to determine without intensive site-specific information. In implementing the Long-term ILRP, the Central Valley Water Board would consider such site-specific information, as provided by irrigated agricultural operations, to reevaluate whether a particular waste discharge could affect groundwater quality.

The basis for the position that most, if not all, irrigated agricultural operations discharge or propose to discharge waste that could affect groundwater quality to some degree and over some period of time is based upon review of groundwater quality data, the physical properties of water, the principles of irrigation, and the gravitational process. As described in Section III.C.2 of the Draft PEIR, Appendix A, a considerable number of wells in the Central Valley have high levels of nitrate. The use of chemical nitrogen-based fertilizers has been found to be a potential cause of nitrate contamination of groundwater in agricultural areas (see pages 99–100 of the Draft PEIR, Appendix A). Also, DPR's Groundwater Protection Program has found pesticides in groundwater from irrigated agricultural use. Water is a natural solvent that dissolves a variety of compounds contained within the soil (e.g., salts, minerals, certain polar organics). The resulting solute may include nutrients, pesticides, salts, or other naturally occurring or applied chemicals. During irrigation, water/solutes infiltrate the soil and pass downward under the force of gravity to the root zone of the crop where a portion of this subsurface water is taken up by the plant's root system. The remaining water passes below the root zone and can no longer be utilized by the crop. This process is acknowledged by state and local agencies to provide necessary groundwater recharge in areas within the Central Valley.

Also, as described in Section III.C.1 of the Draft PEIR, Appendix A, there are a considerable number of surface water management plans required under the current ILRP. These plans are required to address exceedances of water quality objectives (e.g., high levels of pesticides used by irrigated agriculture). Also see Table 3 of the Draft PEIR, Appendix A, page 26. Accordingly, waste discharge from irrigated agricultural operations to surface waters has the potential to affect surface water quality.

Because the Long-term ILRP will be implemented through general WDRs or a general waiver of WDRs, applicable to a variety of irrigated agricultural operations, it must programmatically include all potential irrigated agricultural waste discharges that could affect the quality of state waters (surface and groundwater). If an operation does not wish to enroll in the ILRP, it may submit a ROWD describing the waste discharge (e.g., whether there is a potential to affect groundwater quality). Upon review of the report, the Board may choose to waive the requirement to obtain WDRs, issue individual WDRs specific to the operation, or seek to enroll the operation in the ILRP.

Because the informational requirements for determination of whether there is a waste discharge that could affect groundwater quality are intensive and may often carry a greater expense than enrollment in the ILRP, Alternatives 2, 4, and 6 include tier systems, where low priority waste discharges would be subject to reduced monitoring and management requirements (e.g., areas or operation types where there is little possibility for waste discharges to degrade groundwater quality). Higher priority waste discharges would have additional monitoring and management requirements intended to address and monitor progress toward solving water quality concerns. Also where local groundwater protection programs are in place, Alternatives 2 and 6 allow for coordination of the existing programs with the ILRP (see page 154 of the Draft PEIR, Appendix A and page 12 of Appendix A of the report). This coordination will work to minimize duplication of efforts and multiple overlapping regulatory requirements.

2.2.13 #13: Justification and Legal Basis for the Alternative 6 Proposal for Time Schedules for Compliance with Water Quality Objectives

2.2.13.1 Comment Summary

Comments that led to the creation of this response centered on Alternative 6's call for time schedules for compliance with Program water quality objectives. Comments included concerns that the Central Valley Water Board lacks the legal authority to enforce time schedules for compliance; several comments noted that the time schedules were too abbreviated or not rationally related to the Program's goals.

2.2.13.2 Response

If the Central Valley Water Board determines that it is necessary to allow time to achieve water quality requirements, the Board has authority to utilize time schedules in implementation of the Long-term ILRP. Should implementation take the form of WDRs, California Water Code Section 13263(c) explicitly clarifies that the requirements "may contain a time schedule, subject to revision in the discretion of the board." The NPS Policy also lists conditional waivers as an "administrative tool" to control NPS pollution. The NPS Policy's section on time schedules, which applies to all of the administrative tools described in the NPS Policy, specifies that time schedules be included in waivers where the Central Valley Water Board determines it necessary to allow time to achieve the water quality requirements of the NPS control program. *Also see Master Response 5, NPS Policy, Key Element 3 discussion.*

2.2.14 #14: Adequacy of the Indirect Effects Analysis, Including the Effects of Agricultural Land Going out of Production and Other Uses Being Implemented

2.2.14.1 Comment Summary

A number of comments stated that the Draft PEIR did not include an adequate discussion of the indirect effects of implementing a Long-term ILRP. Several of the comments referred to the CEQA guidance on analysis of direct and indirect effects and then made specific reference to effects that would occur indirectly as a result of changing management practices and causing agricultural land

to go out of production. The range of indirect effects that were mentioned include: (1) reduced groundwater recharge as a result of less surface irrigation, (2) increased pumping of groundwater as a result of converting to more valuable crops, (3) reductions in stream flow associated with reduced surface irrigation, (4) loss of wildlife habitat due to reduced agricultural runoff, (5) reduced wildlife habitat due to conversion of certain grain crops, (6) increased valley temperatures and global climate change associated with reduced surface irrigation, (7) increased air emissions and energy demand associated with broader use of pressure irrigation and groundwater pumping, and (8) conflicts with land use planning due to agricultural land conversion.

2.2.14.2 Response

The Central Valley Water Board included discussions of indirect program effects in its Draft PEIR wherever it could be determined that the effects were not speculative in nature. As indicated in Chapter 5, Section 5.1, Approach to Impacts (Draft PEIR page 5-1), the management practices that may be undertaken by farmers to comply with the requirements of a new Long-term ILRP are not mandatory and are likely to vary greatly across the varied landscape of the Central Valley. Nonetheless, these management changes are what would create the physical effects on the environment. Management decisions to remove lands from agricultural use or change agricultural use as a result of economic pressures are also a possible effect of the program. Most of the likely effects of changing agricultural practices or eliminating agricultural operations would be indirect effects and could possibly be avoided by implementing alternate management practices. Therefore, the indirect effects of the program are discussed throughout Chapter 5, but in a programmatic way and without undue speculation.

As indicated by the comments, the State CEQA Guidelines, Section 15064(d) require that an EIR analyze both direct physical changes in the environment and reasonably foreseeable indirect physical changes in the environment which may be caused by the project. It is also important to note, however, that the State CEQA Guidelines ask the lead agency to use its judgment in describing indirect effects. Section 15064(d)(3) states that "An indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project. A change which is speculative or unlikely to occur is not reasonably foreseeable." The Central Valley Water Board has used this direction in discussing the effects of adopting a new Long-term ILRP.

The specific areas of concern in the indirect effects analysis identified by comments are addressed in the following paragraphs.

1. Improvements in irrigation water management, which would reduce the demand for both surface and groundwater diversions, is not expected to significantly affect groundwater, other than reducing the potential for agricultural chemicals to be transported to groundwater bodies. In areas where current irrigation practices provide for some groundwater recharge, reduced irrigation may reduce groundwater levels. However, improvements in water use efficiency may also result in less pumping of groundwater in some areas. In areas where irrigation water comes exclusively from surface water diversions and there is no likelihood of reductions in groundwater pumping, small changes in groundwater levels may occur. Without specific information on locations and amounts of reduced surface irrigation that would result from the program, it would be speculative to discuss any changes in groundwater levels that might result. This issue can be reconsidered, provided information or data to support further analysis are provided when specific implementation mechanisms (WDRs, waivers) with smaller geographic limits are brought forward for Central Valley Water Board consideration.

2. The Central Valley Water Board has not attempted to speculate on the potential for program-related effects on groundwater due to changes in cropping patterns. It is certainly possible that, at some locations, low value crop land that currently uses large amounts of irrigation water (e.g., irrigated pasture) could be converted to higher value cropland with lower water requirements (e.g., vineyards) as a result of the economic pressures of the program. It is also possible that higher value crops could have higher water demands (e.g., orchards or rice). However, there is no way to accurately predict the location and extent of management practice changes at this programmatic level. This situation was made clear on page 5.11-1 of the Draft PEIR in the discussion of land use. The document states that land use changes associated with implementation of the program alternatives are unknown. Some lands may be converted from the current agricultural use to other uses (including higher value crops), but the location and nature of those changes is unknown at this time. Given the lack of information or clear rationale for concluding that groundwater pumping would increase, the Central Valley Water Board has chosen not to speculate on changes in groundwater levels that could occur as a result of changing from low value to higher value crops.

3. The potential for an adverse effect on surface water hydrology from reduced irrigation return flows has been evaluated in Chapter 5, Section 5.9, Hydrology and Water Quality, on pages 5.9-15 and 5.9-16 of the Draft PEIR for Alternative 1, and on subsequent pages for other alternatives. The surface water hydrology effects of concern under CEQA include altering runoff or drainage patterns in a manner that would degrade water quality, increase erosion, or increase the risk of flooding. Increase in use of tailwater recovery systems would not create any such impacts. Due to the programmatic nature of the alternatives and the impact analysis, quantification of changes has not been conducted. Where land goes out of production, there is the potential for less water being diverted from surface water and groundwater bodies. As indicated in the comments, there is the potential that there would be less agricultural return flow in some seasons and some locations. The combined effects of reduced tailwater return flows and less diversion from natural waterways will vary with a whole range of factors that cannot be predicted at the programmatic level of analysis.

4. The potentially significant effects of the Long-term Program alternatives on fish are discussed in Chapter 5, Section 5.8, Fisheries in the Draft PEIR. The potential effects from a reduction in agricultural return flows are included on page 5.8-51. Wildlife and vegetation effects are addressed in Chapter 5, Section 5.7, Vegetation and Wildlife. The specific effects of reduced agricultural return flows on these resources are described on pages 5.7-45 and 5.7-46.

5. Certain types of grain crops (e.g., rice) do provide seasonal habitat for a wide range of wildlife species, including birds. However, the large scale, programmatic nature of the analysis that is needed to make decisions on the Long-term ILRP does not allow for the detailed work needed to determine specific crop type losses or specific geographic areas likely affected by land conversion. It is also speculative to identify the degree to which specific types of land uses might follow the fallowing of agricultural fields. Therefore, the net effect of changes in crop type or land use on wildlife habitat is not discussed in the Draft PEIR. This issue can be reconsidered when specific implementation mechanisms (WDRs, waivers) with smaller geographic limits are brought forward for Central Valley Water Board consideration.

6. The effect of agricultural land conversion on global warming and emission of greenhouse gases (GHGs) depends on what land use changes would occur following the cessation of agriculture. As stated in Chapter 5, Section 5.11, Minimally Impacted Resources, on page 5.11-1 of the Draft PEIR, the land use changes that may occur are unknown. Therefore, the subsequent

contributions to GHGs are unknown. Commenters are also referred to text changes that have been made to the GHG analysis. These changes are included in Chapter 4, Revisions to the Draft Program Environmental Impact Report, pages 4-5–4-8 in this Final PEIR.

7. Regarding air quality and energy effects of installing more pressurized irrigation systems, Chapter 5, Section 5.5, Air Quality, Table 5.5-8 in the Draft PEIR indicates that the installation of pressurized systems could result in "minor amounts of exhaust emissions…if construction activities are required." Improved irrigation practices may reduce the amount of time that existing pressurized pumping systems are used, which may offset emissions and energy use generated by "new" devices (see Draft PEIR, page 5.6-12). The use of improved water management techniques, including pressurized systems, may also reduce the pumping of groundwater or pumping of water from existing waterways or canals, thereby reducing the energy used and the emissions related to these existing practices. The extent to which this may occur is speculative at this juncture and is not analyzed further as the location and extent of the changes in irrigation practices are unknown.

   The text of the air quality analysis, beginning on page 5.5-26 (Operational Emissions) will be modified to specifically mention the potential increase in groundwater well operation in support of sprinkler and drip systems (see Chapter 4, Revisions to the Draft Program Environmental Impact Report, pages 4-3–4-5 in this Final PEIR). The potential for increased well operation was considered in this analysis, as indicated on page 5.5-26 and subsequent impact discussions, but the switch from flood and furrow irrigation to pressurized irrigation was not mentioned. This modification will not result in a new significant adverse impact not discussed in the Draft PEIR. As indicated on page 5.5-28 (Impact AQ-2) and subsequent pages, it is not possible to quantify these emissions due to the lack of information on the extent of this water management change. There are also likely to be offsetting reductions in energy use related to agricultural management changes (reduced pumping of both surface and groundwater as water use is reduced through improved water management).

8. Regarding land use issues, the Draft PEIR, on page 5.11-1, states that land use changes associated with implementation of the ILRP alternatives are unknown. Some lands may be converted from active agriculture to other uses, but the location and nature of those changes is unknown at this time. It is reasonable to assume that if lower-value cropland is fallowed as a result of economic forces associated with the program, a change in use will occur; however, the effect of the change will vary with specific location, the type of new land use and other factors. Any changes in use that would require development would be subject to local government review, including consideration of consistency with land use plans, policies, and regulations. It would be speculative to address potential inconsistencies at this programmatic level. Agricultural lands are taken in and out of production routinely in the Central Valley and the issues associated with changing use are addressed at the local level.

2.2.15 #15: Consideration of Carbon Sequestration from Irrigated Agriculture

2.2.15.1 Comment Summary

A number of comments noted that the Draft PEIR failed to consider carbon sequestration in the climate change and GHG impact analysis. The majority of comments stated that because cropland sequesters atmospheric carbon dioxide, potential GHG reductions from agricultural activities should

be considered. Others noted that the loss of irrigated lands (Impact AG-1), and thus carbon sequestration potential, should be discussed as a source of GHG emissions.

2.2.15.2 Response

Agricultural activities represent both an emissions sink (i.e., they reduce emissions) and source (i.e., they produce emissions). The net effect of agriculture on climate change is dependent on several factors, including crop type and size, crop acreage, sequestration rate, soil moisture, and precipitation rates. Because specific information related to the subsequent land use type that would replace low value crops following implementation of the Long-term ILRP is not available, estimating the program's effects on carbon sequestration and GHG emissions is far more uncertain and speculative than for other classes of emissions (e.g., construction and operations). Consequently, emissions resulting from land use change were not included in the analysis. However, in response to public comments, a discussion of carbon sequestration and the analysis limitations has been added to the Draft PEIR, pages 5.6-12 and 5.6-13 (see Chapter 4, Revisions to the Draft Program Environmental Impact Report, pages 4-5–4-8 in this Final PEIR).

2.2.16 #16: Adequacy of the Greenhouse Gas Emissions and Global Warming Analysis

2.2.16.1 Comment Summary

A number of comments indicated that the Draft PEIR conclusions regarding global warming are not supported by substantial evidence. The comments assert that the conclusions drawn in the document are based on speculation, rather than best available science. A study published in 2007, which argues irrigated agriculture has a net cooling effect in the Sacramento Valley, is cited as "best available science." This evidence, as stated by the comments, "suggests that that any program, such as the ILRP…, will cause increased climate change impacts in the Central Valley."

2.2.16.2 Response

The Draft PEIR fully evaluates climate change impacts related to the ILRP to the extent that information is available. State CEQA Guidelines, Section 15064.4, states that "A lead agency should make a good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project" and that a lead agency shall have the discretion to "rely on a qualitative analysis or performance based standards." Information required to conduct a rigorous quantitative analysis of GHG emissions is not available for the evaluation of the proposed IRLP alternatives. Thus, the Lead Agency conducted a qualitative assessment of direct and indirect GHG emissions associated with construction and operation of the ILRP.

Consistent with the State CEQA Guidelines and scientific consensus regarding the cumulative nature of GHGs, the Draft PEIR concludes that project-level impacts relating to climate change would be less than significant. Climate change is a global problem, and GHGs are global pollutants, unlike criteria air pollutants (such as ozone precursors), which are primarily pollutants of regional and local concern. Given their long atmospheric lifetimes (see Draft PEIR, Chapter 5, Section 5.6, Climate Change, Table 5.6-1), GHGs emitted by countless sources worldwide accumulate in the atmosphere. No single emitter of GHGs is large enough to trigger global climate change on its own. Rather, climate change is the result of the individual contributions of countless sources—past, present, and future.

Therefore, GHG impacts are inherently cumulative. Thus, the Draft PEIR's project-level conclusion is supported by the best available science and is consistent with current CEQA analysis practice.

Chapter 6, Cumulative and Growth-Inducing Impacts, of the Draft PEIR evaluates the ILRP's contribution to climate change on a cumulative level and concludes that emissions would be significant. This conclusion is based on the qualitative analysis of direct and indirect GHG emissions presented in Chapter 5, Section 5.6. Direct emissions sources associated with the ILRP include fuel combustion by heavy-duty construction equipment and on-road vehicles. Indirect sources include reductions in fertilizer application and increases in energy use from electric powered pumps. While the exact emissions associated with these sources are not quantified, the Draft PEIR discusses the potential for the ILRP to increase the use of equipment and on-road vehicles, as well as install new electric powered pumps. The relationship between increased equipment use and GHG emissions is well documented in established literature and is not speculative.

As discussed in the Final PEIR, emissions associated with land use change are too speculative to qualitatively or quantitatively consider in the GHG analysis (please refer to *Master Response 15*). The 2007 study referenced by the comment indicates that agricultural activities help mediate global warming and have a net cooling effect on surrounding communities, as well as actively sequester carbon dioxide. However, agriculture also produces carbon emissions through natural decomposition and decay. Thus, the extent that reducing irrigated land would result in increased climate change impacts cannot be definitively concluded without location-specific information. Thus, to avoid a conclusion based on speculation, the Final EIR does not include an analysis of the degree to which land use changes would affect emissions.

Within the constraints of available information and the current regulatory setting, the Draft PEIR makes a good-faith effort to characterize potential GHG emissions and climate change impacts associated with the ILRP. However, to ensure emissions and potential impacts are not under-represented, the Lead Agency has chosen to make a conservative conclusion of cumulatively significant and unavoidable.

2.2.17 #17: Explanation Concerning the Disposition of Comments on the Economic Analysis Technical Memorandum

2.2.17.1 Comment Summary

A large number of comments were received from the public regarding the content and conclusions contained in the Draft ILRP Economics Report. This report was developed, in part, to support the Central Valley Water Board's obligation under the California Water Code to estimate total costs prior to taking action on an agricultural water quality control program such as the Long-term ILRP. The economic analysis was not a requirement of CEQA.

The comments received on the economic report can be placed in a number of categories, including: (1) the analysis underestimates the actual costs of implementing the Long-term ILRP; (2) the analysis over-estimates the actual costs of implementing the Long-term ILRP; (3) the analysis is flawed by the data used and the assumptions made to develop costs; (4) the analysis does not include forward-linked costs; and (5) the analysis does not provide a specific cost for implementing the staff recommended program alternative (Alternative 6). A summary list of individual comments

for each of these general categories is presented below. Many of the reviewers of the Draft ILRP Economic Report and the Draft PEIR also voiced a general concern that the program was too expensive and would place undue burdens on many farmers in the Central Valley. This concern is addressed at the end of the Response section below.

Regarding underestimates of actual costs, the following general concerns were expressed:

- The analysis does not consider the costs of groundwater remediation;
- The analysis does not include the added costs of labor as farm management practices change;
- The analysis does not include the costs of implementing a groundwater monitoring program;
- The costs associated with the change or modification of management practices are not adequately included;
- Monitoring costs are underestimated; and
- Costs of drilling wells in mountain regions are underestimated.

Regarding over-estimates of actual costs, the following general concerns were expressed:

- The analysis does not consider the future positive economic effects of cleaning up groundwater now rather than in the future;
- The analysis does not adequately capture the positive economic effects of improved farming practices, water quality improvement, reduced use of fertilizers and reduced demand for agricultural water supplies;
- The analysis considered higher-cost management practices; farmers are likely to implement lower-cost practices to meet program requirements;
- The analysis over-estimates the costs of management practices that have already been implemented; and
- The costs of many practices are over-estimated because they are implemented for multiple reasons, not just to improve the quality of discharges.

Regarding the use of old or flawed data and inappropriate assumptions, the following general concerns were expressed;

- The assumption of baseline used in the analysis is incorrect, so results are flawed;
- The assumptions regarding how many farmers must implement new practices are over-estimated; many improved practices have already been implemented;
- An insufficient number of agricultural practices was used in the analysis;
- Costs in higher-elevation agricultural areas were inappropriately assumed to be similar to those in valley areas;
- The analysis should have included a range of costs for monitoring pesticides, as they will vary significantly by region and type of pesticide;
- The IMPLAN model assumptions are flawed;
- The variation in costs by region were not adequately reflected in the analysis;
- The assumptions regarding the number of enrolled farmers are not accurate; and

- The assumption that growers will find less expensive management practices is not documented.

Regarding forward-linked costs, the following general concerns were expressed:

- The forward-linked effects analysis is not accurate, is understated and is not comprehensive.

Regarding the lack of analysis of the recommended program alternative, the following general concerns were addressed:

- The analysis does not specifically address the impacts of the recommended program alternative; this needs to be corrected; and
- The lack of an analysis of the recommended program alternative makes the economic analysis inadequate and creates regulatory notice problems.

2.2.17.2 Response

As indicated in the Comment Summary above, the economic analysis prepared for the Long-term ILRP alternatives is a requirement of the California Water Code to be utilized at the point of adoption of WDRs or waivers and is not directly a part of the CEQA analysis. Therefore, the Central Valley Water Board is not obligated and does not intend to develop detailed responses to all comments on the *Draft Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program.* The Central Valley Water Board has reviewed all comments on this document and is aware of the issues the public has raised. However, the Central Valley Water Board believes that the economic analysis is adequate for its consideration of a range of programmatic alternatives to the existing ILRP. Because of the programmatic nature of the alternatives, their various components, and the anticipated reactions of the regulated community to this Long-term Program, it has been necessary and appropriate to make general assumptions on changes in management practices and subsequent changes in the costs of maintaining agricultural operations in the Central Valley. The Central Valley Water Board has the authority to modify and re-consider the cost implications of its actions on the Long-term Program as the specific implementation mechanisms are developed. This additional review can include a revision to the *Draft Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program,* or an updated analysis that addresses the various components of the Revised Staff Recommended Long-term Irrigated Lands Regulatory Program, as a specific action.

The Central Valley Water Board is keenly aware that the implementation of a new Long-term ILRP may place a considerable economic burden on the regulated community. The staff has taken economic considerations into account in the development of its Revised Staff Recommended Irrigated Lands Regulatory Program. Nonetheless, the Central Valley Water Board has a legal obligation to regulate discharges to waters of the state from agriculture. It is the intent of the Central Valley Water Board to develop implementing mechanisms based on this programmatic evaluation of alternatives, consistent with the goals of meeting applicable water quality objectives and maintaining the economic viability of all sizes of irrigated agricultural operations in the Central Valley.

2.2.18 #18: Explanation of Requirement to Monitor First Encountered Groundwater

2.2.18.1 Comment Summary

Commenters expressed concern over the Central Valley Water Board's use of first encountered groundwater in assessing the affects of irrigated agricultural operations. Comments included:

- First encountered groundwater is an improper standard to use when evaluating water quality impacts due to agricultural operations.
- Although not specifically discussed in the PEIR or Alternative 6, most beneficial uses of groundwater do not actually occur in the first encountered groundwater.
- A determination of program compliance using first encountered groundwater fails to take into account the assimilative capacity of soil in irrigated lands governed by the Long-term ILRP.

2.2.18.2 Response

The Water Quality Control Plans for the Sacramento River Basin and the San Joaquin River Basin specify, "Unless otherwise designated by the Regional Water Board, all ground waters in the Region are considered as suitable or potentially suitable, at a minimum, for municipal and domestic water supply (MUN), agricultural supply (AGR), industrial service supply (IND), and industrial process supply (PRO)." Likewise, the Tulare Lake Basin Plan stipulates that, "For ground water, the following beneficial uses have been identified and occur throughout the Basin: Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Industrial Service Supply (IND), Industrial Process Supply (PRO), Water Contact Recreation (REC-l), and Wildlife Habitat (WILD)."

Both Basin Plans define groundwater as "…subsurface water that occurs beneath the ground surface in fully saturated zones within soils and other geologic formations." First encountered groundwater is a water of the state (as defined by California Water Code Section 13050 (e)) which has been ascribed a MUN beneficial use by the Water Quality Control Plans that have been developed for the Central Valley Region. Monitoring first encountered groundwater provides the earliest indication of groundwater impact due to irrigated agricultural operations and is a direct evaluation of the effectiveness of agricultural management practices and any changes in such practices made to address a water quality concern. Direct measurement of assimilative capacity is obtained by sampling at the point of impact; in this case, after transport through the vadose zone and into first encountered groundwater. It is at this point that impact to the beneficial use may occur. The two Basin Plans include criteria that the Regional Board will use in applying exceptions to the beneficial use designations. Any such exceptions must be part of an amendment to the Basin Plan.

2.2.19 #19: Explanation of Groundwater Quality Management Plan Flexibility in Selecting Management Practices

2.2.19.1 Comment Summary

Several comments received on Appendix A of the Draft PEIR indicate that an appendix footnote (page 154 of Draft PEIR, Appendix A) represents that the groundwater quality management plans that would be required under Alternative 6 would require nutrient budgeting and efficient irrigation in all cases and on all farms where the constituent of concern is nitrate. The comments indicate that:

- Such a requirement would violate California Water Code Section 13360.
- The Board does not have the authority to require specific nutrient management and irrigation water management practices.
- Environmental effects of nutrient and irrigation water management were not considered.
- Economic effects of nutrient and irrigation water management were not considered.
- Economic effects associated with limiting a grower's yield on a crop due to nutrient budgeting limitations or irrigation efficiency restrictions were ignored.

2.2.19.2 Response

In response to the concern that specifying nutrient budgeting and efficient irrigation requirements would violate California Water Code Section 13360 and concerns that the Board does not have the authority to require specific practices, note that the footnote in Appendix A of the Draft PEIR (Footnote 60 on page 154) was intended to provide an example of a class of management practices that would likely satisfy performance standards under Tier 2. Appendix A (page 67) clarifies that management practices would be selected at the local or farm level; however, the Central Valley Water Board will ensure that the management practices implemented under the program meet performance expectations. It must also be noted that, if adopted, Alternative 6 would provide the general framework for subsequently issuing WDRs and waivers of WDRs (orders). The waivers and WDRs will not specify the design, location, type of construction, or particular manner in which compliance is achieved and will not violate Section 13360 of the California Water Code.

The Draft PEIR analyzes the environmental impacts of a representative group of foreseeable management practices that could be implemented under Alternative 6. Nutrient management and irrigation practices are among the practices examined in the Draft PEIR and analyzed in the *Draft Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program* (ICF International 2010). However, none of the alternatives would set a ceiling or standard for nutrient or irrigation water application. Instead, nutrient management plans could be required, depending on the alternative chosen by the Central Valley Water Board. Nutrient management and irrigation water management are described in the Draft PEIR and Draft ILRP Economics Report as two of many practices that could potentially be implemented by operators under the ILRP. It is expected that operations would strive to agronomically apply nutrients and irrigation water under any of the ILRP alternatives to meet ILRP Goal 2. Because the ILRP is not setting a standard or ceiling for nutrient or irrigation water use or specifying practices that operators would need to employ to carry out nutrient and irrigation water management, there should not be costs associated with reduced crop yields. The costs of these representative management practices are estimated in the Draft ILRP Economics Report (i.e., irrigation management, pressurized systems, nutrient management plans).

Chapter 3
Comments and Responses

This chapter contains the comment letters received on the Draft ILRP PEIR. Each letter has been assigned a unique code. Each comment within each of the letters has also been assigned a unique code, noted in the right margin. For example, the code "1-5" indicates the fifth distinct comment (indicated by the "5") in letter number "1." The chapter is organized in four sections:

- Section 3.1, Federal and State Agency Comments and Responses
- Section 3.2, Regional and Local Agency Comments and Responses
- Section 3.3, Non-Governmental Organization Comments and Responses
- Section 3.4, Individual and Form Letter Comments and Responses

Within each section, each comment letter is presented and immediately followed by the responses to that letter. Table 3-1 summarizes the commenting party, comment letter signatory, and indicates on what page of each section the letter appears.

Table 3-1. List of Comment Letters and Location in this Chapter

Letter	Category	On Page	Agency/Organization	Comment Letter Signatory
1	Regional/ Local	3.2-46	Kern Delta Water District	L. Mark Mulkay, General Manager
2	Individual	3.4-162	Organic Farmer	Kathryn Wilkins
3	Regional/ Local	3.2-5	Chowchilla Red Top Resource Conservation District	Tim Coelho, Director
4	NGO	3.3-3	Butte County Farm Bureau	Colleen M. Cecil, Executive Director
5	Individual	3.4-81		Vance Kennedy
6	Individual	3.4-97		Virginia Madveno
7	Individual	3.4-25		David Cory
8	Individual	3.4-134		Jesus Quevedo
9	Individual	3.4-189		Kathleen Denison
10	Regional/ Local	3.2-85	Regional Council of Rural Counties	Nick Konovaloff, Legislative Analyst
11	Individual	3.4-171		Herman Schindler
12	NGO	3.3-407	Tulare County Farm Bureau	Patricia Stever, Executive Director
13	Individual	3.4-151		Joan C. Townsend
14	Individual	3.4-116		Joanna Mendoza
15	Individual	3.4-99		Maria Magana
16	Individual	3.4-101		Simona Magana
17	Individual	3.4-111		Esther Martinez
18	Individual	3.4-114		Luis Medellin
19	Individual	3.4-104		Adolfo Magana
20	Individual	3.4-160		Darrell Voortman, Irrigator
21	Individual	3.4-129		Ana Karen Orozco

Letter	Category	On Page	Agency/Organization	Comment Letter Signatory
22	Individual	3.4-121	Clarksburg Farmer	Greg Merwin
23	Individual	3.4-26		Bertha Diaz
24	Individual	3.4-37		Mason Gallegos
25	Individual	3.4-118		Veronica Mendoza
26	Individual	3.4-137		Jesus Quevedo
27	Individual	3.4-125		Josie Nieto
28	Individual	3.4-131		Maria Elena Orozco
29	Individual	3.4-157		Lucino and Ana Vargas
30	Individual	3.4-13		Maria Barragan
31	Individual	3.4-22	The Clarence Scott Ranches	William A. Chapman
32	Individual	3.4-24	The Clarence Scott Ranches	William A. Chapman
33	NGO	3.3-415	Yolo County Farm Bureau Education Corporation	Chuck Dudley, President
34	Individual	3.4-18		Ronnie Castillo
35	Individual	3.4-16	Jeffreys Ranch	Theresa J. Bright
36	NGO	3.3-5	Butte County Farm Bureau	Colleen M. Cecil, Executive Director
37	Regional/ Local	3.2-34	County of El Dorado Board of Supervisors	Norma Santiago, Chair
38	Individual	3.4-142	Agua Youth Representative	Jessica Sanchez
39	Individual	3.4-109	Marenco Cattle Co., Inc.	Chris Marenco
40	Individual	3.4-140	Stone Corral School District	Rebecca Quintana, Board Member
41	Regional/ Local	3.2-11	Colusa Glenn Subwatershed Program	Larry Domenighini, President
42	NGO	3.3-57	California Land Stewardship Institute	Laurel Marcus, Executive Director
43	NGO	3.3-337	Pesticide Watch	Dana Perls, Community Organizer
44	NGO	3.3-294	North Eastern California Water Association	Roderick McArthur, Vice President
45	Regional/ Local	3.2-109	Westlands Water District	Orvil D. McKinnis Jr., Watershed Coordinator
46	Individual	3.4-39	Hinrichs Farms	Dan Hinrichs, P.E.
47	Regional/ Local	3.2-78	Plumas County Flood Control and Water Conservation District	Brian L. Morris, General Manager
48	Regional/ Local	3.2-40	El Dorado County Water Agency	James R. “Jack” Sweeney, Chairman, Board of Directors
49	NGO	3.3-60	California Rice Commission	Tim Johnson, President and CEO, and Roberta L. Firoved, Industry Affairs Manager
50	Individual	3.4-86	G. Fred Lee & Associates	G. Fred Lee, Ph.D., and Anne Jones Lee, Ph.D.
51	Individual	3.4-20		Romelia Castillo
52	Individual	3.4-50	BerryBlest Farm	Bud Hoekstra
53	Individual	3.4-249		Helen C. Roberts and Stanley K. Roberts
54	Individual	3.4-233		Jennifer Bittner
55	Individual	3.4-243		Ed J. F. Mast

Letter	Category	On Page	Agency/Organization	Comment Letter Signatory
56	Individual	3.4-247	H.D. Plocker Partnership	Virginia Plocker
57	Individual	3.4-255		Penelope Walgenbach
58	Individual	3.4-260	Wohlfrom Family Farms	Alice B. Wohlfrom
59	Individual	3.4-237		Alfred Geerts
60	Individual	3.4-253		Robert Suffin
61	Individual	3.4-239		Andrew Johas
62	Individual	3.4-251		John Studarus
63	Individual	3.4-186		Don Rosa, Natomas Landowner and Farmer
64	Individual	3.4-175		Lance and Gay Columbel
65	Individual	3.4-181		Marian C. Jewett
66	Individual	3.4-94		Kent Vander Linden
67	Individual	3.4-200		Franklin Espriella
68	Individual	3.4-173		Anonymous
69	Individual	3.4-219		Brian Paddock
70	Individual	3.4-225	Wohlfrom Family Farms	Alice B. Wohlfrom
71	Individual	3.4-203		William Fletcher, Trustee and Margaret C. Fletcher, Trustee
72	Individual	3.4-257		John Wilson
73	Individual	3.4-194		John Barbee
74	Individual	3.4-213		Warren E. Johnston
75	Individual	3.4-210		Daniel Hrdy
76	Individual	3.4-155	Button and Turkovich	Tony Turkovich
77	Individual	3.4-206	Gregory Farms	Ken Gregory
78	NGO	3.3-283	El Dorado County Farm Bureau	Merv de Haas, President
79	Individual	3.4-44	Hinrichs Farms	Dan Hinrichs, P.E.
80	Regional/ Local	3.2-2	Arvin-Edison Water Storage District	Steve Collup, Engineer-Manager
81	Individual	3.4-231		Thea Wiedenroth
82	Individual	3.4-83		Nancy Lea
83	Individual	3.4-127		Linda Ormonde
84	Individual	3.4-32		Ismael Fernandez
85	Individual	3.4-29		Ismael Avila Estrada
86	Individual	3.4-10		Maria and Refugio G. Aguirre
87	Individual	3.4-4		Frank Alssberg, Bernard N. Bertagna, Mary Jane Bertagna, Berton Bertagna, Jason Bertagna, Callie Bonner, Joe Caito, Nicki Caito, Valere Goss, Bill Graves, Rhonda Graves, Alex Hardaway, Hans Jensen, Jay Krale, Robert Proe, Doly Sterette, Robert Stonneman, Kevin P. Sullivan, Cheryl Taylor, Tolle Taylor
88	NGO	3.3-351	San Joaquin River Exchange Contractors Water Authority	Steve Chedester, Executive Director
89	NGO	3.3-358	South Delta Water Agency	John Herrick

Letter	Category	On Page	Agency/Organization	Comment Letter Signatory
90	NGO	3.3-8	California Cattlemen's Association	Tom Talbot, DVM, President
91	Regional/ Local	3.2-2	Arvin-Edison Water Storage District	Steve Collup, Engineer-Manager
92	NGO	3.3-12	California Farm Bureau Federation	Kari E. Fisher, Associate Counsel
93	Individual	3.4-241		Roseann Lyons
94	NGO	3.3-54	California Grape and Tree Fruit League	Christopher Valadez, Director of Environmental and Regulatory Affairs
95	Regional/ Local	3.2-89	Sacramento County Farm Bureau	Charlotte Mitchell, Executive Director
96	NGO	3.3-22	California Farm Bureau Federation et al.	Theresa "Tess" A. Dunham, Attorney, Somach Simmons & Dunn
97	NGO	3.3-302	Northern California Water Association/Sacramento Valley Water Quality Coalition	Bruce Houdesheldt, Director, Regulatory Affairs
98	Regional/ Local	3.2-7	City of Sacramento, Department of Utilities	Sherill Huun, Supervising Engineer
99	State	3.1-5	California Department of Pesticide Regulation	Lisa Ross, Ph.D., Environmental Program Manager I
100	NGO	3.3-268	El Dorado County Agricultural Water Quality Management Corporation	Carolyn Mansfield, President
101	Federal	3.1-2	U.S. Bureau of Reclamation	Michelle H. Denning, Regional Planning Officer, Mid-Pacific Regional Office
102	Regional/ Local	3.2-102	Sutter County Resource Conservation District	James Cornelius, P.E., Water Resources Engineer
103	Individual	3.4-164		John C. Zentner
104	NGO	3.3-71	California Sportfishing Protection Alliance and California Water Impact Network	Michael R. Lozeau, Lozeau Drury LLP and Bill Jennings, CSPA
105	NGO	3.3-183	California Sportfishing Protection Alliance and California Water Impact Network	Michael R. Lozeau, Lozeau Drury LLP and Bill Jennings, CSPA
106	NGO	3.3-343	San Joaquin County and Delta Water Quality Coalition	Mike Wackman
107	Regional/ Local	3.2-37	Dixon/Solano Resource Conservation District	John S. Currey, District Manager
108	Regional/ Local	3.2-148	Wheeler Ridge-Maricopa Water Storage District	Thomas Suggs P.E., P.G., H.G., Staff Engineer
109	NGO	3.3-347	San Joaquin County Resource Conservation District	Molly Watkins, President
110	NGO	3.3-184	California Urban Water Agencies	Ernesto A. Avila P.E., Executive Director
111	NGO	3.3-363	Southern San Joaquin Valley Water Quality Coalition	David Orth, Steering Committee Coordinator
112	NGO	3.3-363	Southern San Joaquin Valley Water Quality Coalition	David Orth, Steering Committee Coordinator
113	NGO	3.3-340	Sacramento Amador Water Quality Alliance	Rebecca Waegell, Coordinator

Letter	Category	On Page	Agency/Organization	Comment Letter Signatory
114	Individual	3.4-144		Ryan Schohr
115	NGO	3.3-322	Pacific Institute	Eli Moore, Senior Research Associate, Eyal Matalon, and Matt Heberger
116	Regional/ Local	3.2-95	Sierra County Board of Supervisors	Dave Goicoechea, Chairman of the Board
117	NGO	3.3-355	Shasta County Cattlemen's Association	Steve Moller, President
118	Regional/ Local	3.2-46	Kern Delta Water District	L. Mark Mulkay, General Manager
119	Regional/ Local	3.2-11	Colusa Glen Subwatershed Program	Larry Domenighini, President
120	State	3.1-39	California Department of Transportation	Tom Dumas, Chief, Office of Metropolitan Planning
121	Individual	3.4-123		Trent Meyer
122	Individual	3.4-35		Ellen Fickewirth
123	NGO	3.3-187	Community Water Center	Laurel Firestone, Co-Director and Attorney at Law; Clean Water Action, Jennifer Clay, Water Policy Analyst; California Rural Legal Assistance Foundation, Martha Guzman, Legislative Advocate; Food and Water Watch, Elanor Starmer, Western Region Director; Pacific Institute, Eli Moore, Senior Research Associate; Environmental Justice Coalition for Water, Debbie Davis, Legislative Analyst; and California Rural Legal Assistance, Inc. , Phoebe Seaton, Attorney at Law
124	NGO	3.3-343	San Joaquin County and Delta Water Quality Coalition	Mike Wackman
125	NGO	3.3-291	Kings County Farm Bureau	Tyler Bennett, Director
126	NGO	3.3-288	Glenn County Farm Bureau	Jim Jones, President
127	Regional/ Local	3.2-106	United Auburn Indian Community of the Auburn Rancheria	Greg Baker, Tribal Administrator
128	Individual	3.4-153		Harry Turiello
129	Regional/ Local	3.2-76	Penn Valley Fire Protection District	Gene Vander Plaats, Fire Chief
130	Individual	3.4-183	Indian Springs Organic Farm	Mike Pasner
131	Individual	3.4-216	Cattail Farms, Inc.	S. Y. Monckton
132	Individual	3.4-245		Van Overhouse
133	Individual	3.4-222	Sewmawpaw Woodland, LLC	Sarah W. Smith, Manager
134	Regional/ Local	3.2-100	Stanislaus County Environmental Review Committee	Christine Almen, Senior Managment Consultant
135	Individual	3.4-197		Dennis Alan Bruggman
136	NGO	3.3-363	Southern San Joaquin Valley Water Quality Coalition	David Orth, Steering Committee Coordinator
137	NGO	3.3-22	California Farm Bureau Federation et al.	Theresa "Tess" A. Dunham, Attorney, Somach Simmons & Dunn

Letter	Category	On Page	Agency/Organization	Comment Letter Signatory
138	Individual	3.4-47	Hinrichs Farms	Dan Hinrichs, P.E.
139	Individual	3.4-235		Stephen Brandenburger
140	Individual	3.4-178	Bushy Creek Nursery	Phyllis Espinoza
141	Individual	3.4-107	Marcelli Farms	A. J. Marcelli
142	Regional/ Local	3.2-44	Fire Safe Council of Nevada County	Joanne Drummond, Executive Director
143	Regional/ Local	3.2-74	Nevada County Consolidated Fire District	Tim Fike, Fire Chief
144	Individual	3.4-228		Mary Anne Wood
145	NGO	3.3-409	Upper Feather River Watershed Group	Carol Dobbas, Executive Director and Russell Reid, Chairman

NGO = non-governmental organization.

3.1 Federal and State Agency Comments and Responses

This section contains comment letters received from federal and state agencies and responses to those comments.

Table 3-2. List of Comment Letters from Federal and State Agencies

Letter	Agency	Comment Letter Signatory
101	U.S. Bureau of Reclamation	Michelle H. Denning, Regional Planning Officer, Mid-Pacific Regional Office
99	California Department of Pesticide Regulation	Lisa Ross, Ph.D., Environmental Program Manager I
120	California Department of Transportation	Tom Dumas, Chief, Office of Metropolitan Planning

3.1.1 Letter 101—U.S. Bureau of Reclamation, Michelle H. Denning, Regional Planning Officer, Mid-Pacific Regional Office

Comment Letter IL101

United States Department of the Interior

BUREAU OF RECLAMATION
Mid-Pacific Regional Office
2800 Cottage Way
Sacramento, California 95825-1898

IN REPLY
REFER TO:
MP-740
ENV-7.00

Ms. Megan Smith
IFC Kaiser
630 K Street, Suite 400
Sacramento, CA 95814

Subject: Draft Program Environmental Impact Report (PEIR) for a Waste Discharge Regulatory Program for Irrigated Lands within the Central Valley Region

Dear Ms. Smith:

The Bureau of Reclamation appreciates the opportunity to provide comments on the Draft PEIR for the Irrigated Lands Regulatory Program, dated July 2010.

Our goal is to balance the many competing and often conflicting needs among numerous water uses. These needs include urban and industrial, agriculture, fish and wildlife habitat, water quality, wetlands, endangered species issues, Native American tribal trust, power generation, and recreation. Reclamation's Mid-Pacific Region strives to develop and implement a balanced approach to water allocation, serving users while protecting the environment.

Specific concerns in the environmental document that need to be addressed include:

- The effects of various management actions that will reduce flow to receiving waters. State Water Resources Control Board involvement is crucial to ensure water quality actions from this program will not injure downstream users through reduced flows. For example, a major portion of the San Joaquin River is composed of agricultural flows due to wetlands and agricultural management practices. 101-1

- The effects of altering groundwater hydrology patterns and how they relate to adjacent surface water flows. Areas with greater potential for groundwater accretions to surface water flows, such as the Delta, may need more detailed analysis to determine impacts to surface water quality. The groundwater management strategy of this regulatory program should be consistent with the Central Valley Regional Water Quality Control Board's groundwater "Roadmap Program." 101-2

- The need for both coordination and integration with all regulatory programs in the affected watershed to eliminate or minimize redirected impacts. As new regulatory actions come into place for various watersheds or sub-watersheds, flexibility is necessary to allow multiple programs to function without redundant efforts. 101-3

We look forward to working with you to address our concerns. If you have any questions, please contact Mr. Gene Lee, Regional Water Quality Coordinator, at 916-978-5092 or glee@usbr.gov.

Sincerely,

Michelle H. Denning
Regional Planning Officer

cc: Mr. Adam Laputz
California Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6114

3.1.1.1 Responses to Letter 101

101-1

The effects of the Long-term ILRP on surface water hydrology are addressed in the Draft PEIR, Chapter 5, Environmental Impacts and Mitigation Measures, Section 5.9, Hydrology and Water Quality, beginning on page 5.9-15. The State Water Board has been participating with the Central Valley Water Board in the development of the ILRP and has reviewed the Draft PEIR.

101-2

See Master Response 7.

101-3

This comment will be considered in development of the Long-term ILRP.

3.1.2 Letter 99—California Department of Pesticide Regulation, Lisa Ross, Ph.D., Environmental Program Manager I

dpr Department of Pesticide Regulation

Mary-Ann Warmerdam
Director

Arnold Schwarzenegger
Governor

Comment Letter IL99

September 27, 2010

Ms. Megan Smith
630 K Street
Sacramento, California 95814

Dear Ms. Smith,

Thank you for the opportunity to review and comment on the draft Program Environmental Impact Report (PEIR) for the Central Valley Regional Water Quality Control Board's (Board's) Draft Irrigated Lands Regulatory Program (ILRP). We share your goal of protecting groundwater from the adverse impacts and degradation that may result from the application of pesticides to irrigated lands in the Central Valley. The following is our review of the draft PEIR.

This review comments on specific elements of four sections of the PEIR that are of most interest to the Department of Pesticide Regulation (DPR). These sections are (1) the Summary; (2) Chapter 5. Environmental Impacts and Mitigation Measures. Agriculture Resources; (3) Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program; and (4) Appendix A. Staff Report. Arguably, the Staff Report is the most important document because it explains how Board staff analyzed the ICF International analysis of the five alternatives identified by the stakeholder group, and proposes a hybrid alternative. However, since the Board will be considering all five alternatives in addition to the staff-recommended hybrid alternative, we have commented on the other sections as well. In addition, we have provided a summary of DPR's ground water protection program in order to highlight potential areas of coordination with the proposed ILRP.

The Department of Pesticide Regulation Ground Water Protection Program

DPR has had a ground water[1] protection program in place since the early 1980's, and is guided by the mandates of the Pesticide Contamination Prevention Act (PCPA) of 1985 as subsequently amended. Among the mandates is a requirement that all local, county, and state agencies submit all results of well sampling for pesticides to DPR. Another mandate requires DPR to develop a data base of wells sampled for pesticides in ground water. That data base currently contains the results from 22,924 mainly municipal and rural domestic wells sampled for one or more of 336

[1] It should be noted that the DPR convention is to spell ground water as two words, whereas the PEIR and the Pesticide Contamination Act (PCPA) use "groundwater." When describing or referring to the DPR program, we use "ground water." When quoting the PCPA and commenting on the PEIR, we use "groundwater."

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A Department of the California Environmental Protection Agency

pesticide active ingredients and degradation products over 58 counties. The data base contains approximately two million records, each of which represents a chemical analysis for a single pesticide. Sampling has been conducted in over 9500 sections of land, which covers more than six million acres statewide.

The PCPA also requires a formal review of pesticides found in ground water due to legal agricultural use to determine if continued use can be allowed. This formal review includes findings and recommendations made to the DPR Director by a subcommittee comprised of one member each from the State Water Resources Control Board, the Office of Environmental Health Hazard Assessment, and DPR. A formal review has been conducted for eight pesticides (aldicarb, atrazine, bentazon, bromacil, diuron, norflurazon, prometon, and simazine), which the DPR Director decided could be regulated to protect ground water. Regulation of the parent active ingredient means detected degradation products of these active ingredients are also regulated to protect ground water. Aldicarb requires a permit issued by the county agricultural commissioner for all uses and is subject to use restrictions (management practices) designed to protect ground water statewide. The other seven pesticides require a permit for use in sensitive areas (covering 2.3 million acres), where specified use restrictions apply, and are subject to additional use restrictions statewide to protect ground water. The goal of these use restrictions is to reduce pesticide residues to concentrations in ground water that are below the analytical method detection limit.

The PCPA also requires DPR to establish the Groundwater Protection List of pesticides that have the potential to pollute ground water and conduct well sampling to determine whether they have migrated to ground water. DPR has monitored for approximately 40 pesticide active ingredients (and some of their degradation products) on this list in areas with high use, and is developing analytical methods for additional pesticides on the list. Four of those 40 pesticide active ingredients (or their degradation products) have been found in ground water, but the frequency of those detections even in high use areas is extremely low. Of those four, only one appears to meet the conditions that will require a formal review.

DPR has also adopted regulations to protect wellheads statewide from any pesticide "handled" near a well. Handling includes mixing, loading, transferring, and applying (including chemigation); and maintaining, servicing, repairing, cleaning, or handling equipment used in these activities that may contain residues; and working with opened (including emptied but not rinsed) containers of pesticides. The wellhead protection regulations are also designed to protect wellheads from runoff water containing pesticide residues that may originate far from the wellhead.

Backflow prevention regulations are also in place to prevent direct movement of pesticides to ground water that results from backsiphoning of pesticides in tank mixes or being chemigated when a well shuts off.

Finally, DPR is required to report on its Web site annually a summary of reported wells sampled for pesticides, wells with detections of pesticides, the probable source of any detected residues, and actions taken by DPR for nonpoint sources of pesticides and by the state and regional boards for point sources of pesticides to protect ground water from pesticides.

In summary, DPR's ground water protection program tracks results of well sampling conducted statewide for pesticides, samples for pesticides that have the potential to migrate to ground water, formally reviews detected pesticides and requires users of those pesticides to adopt use restrictions designed to reduce residues to below the detection limit, requires property operators to take specific actions to protect wellheads from pesticides including from backflow, and reports annually on its Web site the results of well sampling for pesticides and all actions taken to protect ground water.

Summary of the Most Significant Comments

(1) The PEIR lists DPR as a coordinating agency for the Irrigated Lands Program, and references the DPR groundwater protection program for pesticides. However, the document is vague on just how growers will be able to use DPR's program, especially the groundwater protection program, to implement the ILRP. To minimize duplication of effort and additional costs on growers, we recommend that the PEIR specifically state that groundwater management plans (GWMPs) reference the DPR ground water protection program as a sufficient, or at least a major, element to address pesticides in ground water. Specifically, the following sections from Title 3 of the California Code of Regulations (3 CCR) should be cited:
Section 6000: Definitions used in various sections dealing with ground water protection, including reference to the document that details the locations of ground water protection areas (GWPAs) by county, township, range, and section of land.
Section 6416: Ground Water Protection Restrictions
Sections 6420-6444 (describe the permit system requirements)
Section 6458: Aldicarb
Section 6484: Bentazon.
Section 6487.1: Artificial Recharge Basins
Section 6487.2: Inside Canal and Ditch Banks
Section 6487.3: Engineered Rights of Way within Ground Water Protection Areas
Section 6487.4: Runoff Ground Water Protection Areas
Section 6487.5: Leaching Ground Water Protection Areas
Section 6609: Wellhead Protection
Section 6610: Backflow Prevention
Section 6624: Pesticide Use Records
Section 6626: Pesticide Use Reports for Production Agriculture

99-1

Section 6800(a): Pesticides that have the Potential to Pollute Ground Water based on detections in ground water. 99-1 cont'd

(2) Without more detail, the current proposal could duplicate DPR's ground water protection program, and unnecessarily duplicate ground water protection strategies already in regulation for pesticides. 99-2

(3) ICF International provided a list of pesticides that are constituents of concern (COC). This list was presumably developed so that ICF International could conduct the economic assessment of the five alternatives. The list includes 10 pesticides that have a groundwater flow path. Two of those are pesticides (diuron and simazine) have been confirmed by DPR in groundwater and are subject to current DPR regulations in GWPAs and statewide in canals and ditches and inside artificial recharge zones. Four (carbofuran, demeton, lindane, and molinate) of the remaining eight pesticides are no longer registered for use so mitigation of current use practices is not possible. Modeling and well sampling indicate diazinon and dimethoate will not likely move to groundwater and since methomyl is not primarily applied to soil, it too has a lower potential to contaminate groundwater. Linuron is the only pesticide listed, other than diuron and simazine, whose continued use has potential to contaminate groundwater. Thus, the economic assessment for the pesticide ground water element is based on pesticides with lower potential to contaminate ground water and therefore based on scenarios not likely to be needed in the field. 99-3

(4) The PEIR apparently lists only two management practices to protect groundwater via the runoff pathway: buffer strips and abandoned well protection. These were identified for the purpose of estimating likely costs, and not as required management practices. Since the PEIR assumes buffer strips only apply to sediment-bound pesticides, which do not threaten groundwater, the only measure that applies to water-soluble pesticides, which have been found in groundwater, is abandoned well protection. We recommend that the PEIR include the other pathways to groundwater in runoff areas, such as dry wells, unprotected water wells, temporarily unused wells, and ditches and drainage ponds dug below confining soil layers, as well as the other management practices that DPR has adopted to mitigate runoff of water-soluble pesticides (see 3CCR sections 6487.3 and 6487.4). 99-4

(5) Based on DPR's costs of analyzing pesticides, the PEIR appears to significantly underestimate the costs of analyzing pesticides in groundwater samples. 99-5

(6) The Board PEIR Staff Report states that monitoring wells are needed to test for pesticides in groundwater, and would require installation of monitoring wells. We recommend that staff 99-6

consider the Burow et.al.[2], US Geological Survey (USGS) report that concludes that results from domestic well sampling are not much different from adjacent monitoring wells, and that monitoring wells should only be required when domestic wells are not available for sampling. 99-6 cont'd

(7) The estimated costs of the five alternatives considered vary from $68/acre/year (the current program that does not address groundwater) to $186/acre/year. In the Staff Report, the recommend program alternative implementation cost is estimated to be $492 million per year or $70/acre/year. However, in light of the uncertainties of which pesticides must be sampled and analyzed, where and how often they must be sampled, and the cost of the analysis, we believe it is only possible to estimate a range of implementation costs, which the PEIR has not done. 99-7

(8) Within GWPAs, some of the requirements of the Groundwater Quality Management Plan could be met by citing the locations of GWPAs, the investigations and information DPR used to establish GWPAs, the DPR publications that document efficacy of management practices to reduce movement of pesticides to groundwater, and the requirements that apply within GWPAs. This information should be acknowledged and specified in the PEIR. 99-8

(9) The Board Staff Report states that surface water priority beneficial uses would be aquatic life, drinking water and human consumption. But the report does not give any guidance on what drinking water levels will be used to protect those beneficial uses. Likewise, the antidegradation policy will be applied to groundwater but no guidance is given on what levels would apply in implementing that policy. Without that guidance, the stringency of management practices and the areas to which they will apply cannot be determined and thus the cost of the program cannot be estimated. 99-9

(10) The Staff Report considers those pollutants that cause or contribute to a violation of water quality objectives or degradation of groundwater quality associated with drinking water uses to be priority pollutants. No currently registered pesticide violates water quality objectives in groundwater, but some may degrade groundwater used for drinking water, if the Board determines that levels of pesticides detected in groundwater violate the antidegradation policy. Depending on how the Board interprets levels detected, all pesticides detected in groundwater could be determined to be priority pollutants. This should be defined. In addition, the purpose for designating priority pollutants is unclear. 99-10

(11) In high priority areas, as identified by DPR's GWPAs, it is unclear when Tier 1 vs. Tier 2 requirements will apply. We believe that since 3 CCR section 6800(a) pesticides are already under management practices in GWPAs, which appears to be the principal criterion for a lower priority, GWPA pesticides should be subject to Tier 1 requirements. 99-11

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[2] Burow, K., J.L. Shelton, and N.M. Dubrovsky. 1998. Occurrence of Nitrate and Pesticides in Ground Water Beneath Three Agricultural Land-Use Settings in the Eastern San Joaquin Valley, California, 1993-1995. U.S. Geological Survey Water-Resources Investigations Report 97-4284

(12) Staff are recommending regional ground and surface water monitoring except in the case of "inability of regional monitoring to determine irrigated agricultural waste contributions," in which case individual monitoring would be required. The PEIR does not give any guidance on how staff would determine "inability of regional monitoring to determine irrigated agricultural waste contributions." How will this determination be made? 99-12

(13) The Staff Report contains a flow diagram that asks "High priority surface or groundwater?" If the answer is yes, the waste discharge requirements are Tier 2 for high priority areas, and Tier 1 for low priority areas. If the answer is no, a waiver is issued with Tier 1 requirements. Under what conditions would Tier 1 for low priority areas apply in an area that is classified as "High priority surface or groundwater"? What is the difference between Tier 1 requirements applied under waste discharge requirements and Tier 1 requirements applied under a waiver? 99-13

Comments on the Draft PEIR.

The comments are organized as follows: first, the PEIR chapter and page number are cited, then the "statement" quotes or summarizes the issue, followed by the corresponding "comment." The statements and corresponding comments are numbered consecutively.

I. Chapter 1. Summary

Page 1-2
Statement 1: "Irrigated agricultural lands" "include lands where water is applied to produce crops, fiber, or livestock for commercial sale or use. For the purposes of this draft PEIR, irrigated agricultural lands also include managed wetlands, nurseries, and water districts that accept discharges from irrigated lands." 99-14

Comment 1: The document should define "managed wetlands," or if defined somewhere, have a reference to a Glossary of definitions in the Table of Contents.The document should also specify whether "nurseries" include both wholesale and retail nurseries.

II. Chapter 5. Environmental Impacts and Mitigation Measures. Agriculture Resources.

Page 5-1
Statement 2: One of those practices is "improved water management," which is described as follows: "Improved management of irrigation water application (reduced over-application) and use of water additives to coagulate particles. Results in reduced sediment runoff, less deep percolation to groundwater. No new hardware required and no ground-disturbing activities likely to result." 99-15

Comment 2: The PEIR should be amended to clarify that the improved irrigation water management will do the following: (1) decrease runoff of water-soluble pesticides, nitrates and salts to surface water, (2) decrease runoff of water-soluble pesticides, nitrates, and salts to dry wells, ditches, or drainage ponds that can facilitate movement to groundwater, (3) decrease runoff of relatively insoluble pesticides attached to sediment to surface water, and (4) decrease leaching of water-soluble pesticides, nitrates and salts to groundwater in permeable soil areas. Use of water additives that reduce sediment will also decrease runoff of relatively insoluble pesticides to surface water.

Improved water management of pressurized systems can lead to some improvement in irrigation efficiency but is not likely to result in significant changes in deep percolation to groundwater because pressurized irrigation system efficiencies are relatively high compared to gravity flow systems. This also appears to be the assumption in Table 2-1 in the Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program where pressurized irrigation is described as only mitigating surface water runoff, not deep percolation. However, it should be noted that these improvements are the most likely to be made by growers because they do not require significant investments in new hardware.

99-15 cont'd

Improved management of gravity flow systems may reduce runoff of water soluble pesticides and sediment-attached pesticides, but is unlikely to significantly reduce deep percolation to groundwater. Shortening irrigation runs, use of surge irrigation (which would require new hardware) or torpedoes to hasten movement of water along furrows can improve irrigation efficiency but in most agricultural soils not enough to significantly minimize pesticide, nitrate and soluble salt leaching that occurs in the top half of the field. However, conversion of gravity flow systems to pressurized systems would significantly increase irrigation efficiency and thus reduce both surface water runoff and deep percolation of water. But since such conversions would require costly installations of "new hardware," growers are less likely to make these changes. These conversions, in most cases, would also require "ground-disturbing activities" to install underground supply pipelines.

These various issues should be addressed in the PEIR, including in the Technical Memorandum addressing economic issues.

Statement 3: Another management practice identified in Table 5.1-1 is "tailwater recovery system," which is described as follows: "Use of tailwater pond to collect surface runoff and prevent flow of sediment and other constituents of concern (COCs); reduces volume of water moving to receiving surface water or groundwater. Includes significant construction effort: construction of ponds, and installation and operation of pumps, often diesel, to recirculate runoff over fields."

99-16

Comment 3: Depending on the site of its construction and the operation of a tailwater recovery system, a tailwater recovery system can increase contamination of groundwater. If a tailwater holding area is constructed so as to expose more permeable soil layers than the surrounding soil

and it is not pumped out frequently or it is not sealed, it can serve to increase groundwater contamination. In a study of drainage water containing pesticide residues and draining into a pond in a shallow groundwater area, Pritchard et al <http://cdpr.ca.gov/docs/emon/grndwtr/manuscript2005.pdf> found that runoff water containing pesticide residues was collected in a pond and subsequently infiltrated within a few days, directly recharging and raising localized shallow groundwater levels. The author concluded that the most practical mitigation measure at this site would be to manage the runoff water that contains herbicide residues by pumping the water out of the pond for reuse in the same or adjacent field, which would reduce the volume of water available for infiltration and decrease the total time for infiltration. 99-16

This information should be included in the PEIR.

Page 5-2

Statement 4: A third management practice identified is "pressurized irrigation," which is described as "Conversion from surface to pressurized irrigation. Reduces volume of water moving to receiving surface water or groundwater, thereby reducing flow of sediment and other COCs to those waters. Fieldwork involved in setting up new irrigation system does not substantially exceed usual field preparation activities.

Comment 4: The meaning of the last sentence needs clarification. Installing a pressurized irrigation system can substantially exceed usual field preparation activities. . It is unclear why the statement does not address impacts beyond "field preparation." Although operating some pressurized irrigation systems, such as solid set sprinkler systems, can substantially decrease usual field preparation activities, other pressurized irrigation systems can require periodic labor to set up, check and periodically move irrigation pipe (hand-move sprinkler systems), which could increase irrigation labor costs depending on the design of the surface irrigation system replaced, or could increase irrigation labor and management costs in the case of drip systems that require more precise monitoring of evapotranspiration, crop water status, integrity of supply lines and performance of emitters to ensure sufficient application of water. These impacts and additional costs should be included in the assessment. 99-17

Statement 5: A fourth management practice identified is "wellhead protection," which is described as follows: "Physical barrier that prevents contaminated surface water from entering groundwater through well shaft. Berms are constructed around wells to prevent runoff from entering, or unused wells are capped with metal welded plates. Minor implementation effort; dirt berm or cover installation does not substantially exceed usual field preparation activities. 99-18

Comment 5: Use of the phrase "entering groundwater through well shaft" implies that the only source of groundwater contamination is through pumping water wells. Another likely source is dry wells, which are used to bypass confining soil layers to reach more permeable soil layers. Although drainage water does not directly enter groundwater, dry wells allow pesticide residues

to bypass the soil microbial zone where most pesticide degradation takes place. Thus, drainage water containing pesticide residues is shunted to more porous soils where continued concentrated volumes of runoff water can leach residues to groundwater. This should be addressed in the PEIR.

The language also refers to capping unused wells with metal welded plates. The Department of Water Resources has developed a state standard for well destruction that appears to address two categories of wells: inactive wells that may be used in the future, and permanently inactive wells (abandoned wells). For temporarily inactive wells, the following language applies: "The top of the well or well casing shall be provided with a cover, that is secured by a lock or by other means to prevent its removal without the use of equipment or tools, to prevent unauthorized access, to prevent a safety hazard to humans and animals, and to prevent illegal disposal of wastes in the well. The cover shall be watertight where the top of the well casing or other surface openings to the well are below ground level, such as in a vault or below known levels of flooding. The cover shall be watertight if the well is inactive for more than five consecutive years. A pump or motor, angle drive, or other surface feature of a well, when in compliance with the above provisions, shall suffice as a cover." The standard does not appear to refer to "metal welded plates." The shaft and annular space of permanently inactive wells must be completely filling with sealing material as specified. Thus it appears the analysis assumes there are no permanently inactive (abandoned) wells. Although the basis for this assumption is not given, it serves to reduce the cost impact of this management practice. In addition, this assumption conflicts with the frequent reference to "abandoned wells" throughout the document. These issues should be addressed in the PEIR.

99-18 cont'd

III. Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program
Chapter 2: Compliance and Management Practice Costs

Page 2-2
Statement 6: Table 2-1. Summary of Water Quality Management Practices Considered for This Analysis

Management Practice	Scope of Practice
Nutrient management	Matches crop need with fertilizer
Irrigation water management	Reduces surface runoff and deep percolation
Tailwater recovery system	Reduces surface water discharge
Pressurized irrigation system	Reduces surface water discharge
Cover crop	Reduces sediment movement, improves infiltration
Buffer strip-sediment trap	Controls sediment movement
Abandoned well protection	Prevents surface water from contaminating GW

99-19

Comment 6: In line 3 of Table 2-1, the scope of practice for the tailwater recovery system is limited to reducing surface water discharge. Although technically correct, it should be noted that reducing surface water discharge can also reduce discharges to groundwater in areas where runoff is the pathway to groundwater. It should also be noted that improperly managed tailwater recovery systems can facilitate pesticide discharges to groundwater.

In line 4 of the table, the scope of practice of the pressurized irrigation system is limited to reducing surface water discharge. The comment made on line 3 also applies. However, if the pressurized system is the result of a conversion from a gravity flow system, "reducing deep percolation" should also be within the scope of practice.

Line 7 of the table addresses abandoned well protection. This conflicts with the management practice specified in "Chapter 5. Environmental Impacts and Mitigation Measures. Agriculture Resources," which addresses wellhead protection in general, including all unprotected wells like dry wells, production wells, unused wells, and abandoned wells. It is not clear why the practice here is limited to abandoned wells.

The PEIR should be amended to address these various issues.

99-19 cont'd

Page 2-3.
Comment 7: Under section 2.2.1.3, Acreage and Grower Data, the reference "Barry, 2010" is either incorrect here or in the Reference section, where it is listed as "Marcus, Barry...."

99-20

Pages 2-6 to 2-8
Statement 8: Section 2.3.1, "When and Where Water Quality Management Practices Are Applied," states that cover crops are used when there are soluble constituents of concern (COC).

Comment 8: This apparently conflicts with Table 2-1, which states that cover crops reduce sediment movement (which is associated with relatively insoluble pesticides) and improves infiltration. It is silent on the topic of surface water discharge (of soluble pesticides). Depending on residence time, cover vegetation can also absorb soluble pesticides.

99-21

Statement 9: This section also states that water quality management practices are applied when there are documented COCs (Figure 2-1,Table 2-5). The practices applied for pesticides were based on the constituent's use by crop type. Therefore, if a constituent is registered for a particular land use type, a management practice is applied to all acres of that land use.

Comment 9: The document does not state whether the management practices are for protection of surface water or groundwater, or both. If for groundwater, management practices should be applied according to the CalVUL model classification that is based on soil types and depth to groundwater, not on land use type, which cuts across soil types. Requiring adoption of a management practice on all acres of a land use for which a pesticide is registered would result in significant unnecessary regulation of the pesticide. The PEIR should specify (or at least discuss)

99-22

how close to a well with a COC detection a grower must be before a water quality management practice would be required.

99-22 cont'd

Statement 10: Table 2-5 lists the constituents of concern identified by ICF International. These are based on 303(d) and other listings or on "Considered a high- or very high-priority constituent by the Central Valley Regional Water Quality Control Board."

Comment 10: This list was presumably developed so that ICF International could conduct the economic assessment of the five alternatives. The list includes 10 pesticides that have a groundwater flow path. Two of those are pesticides (diuron and simazine) that have been confirmed by DPR in groundwater and that are subject to current DPR regulations in GWPAs and statewide in canals and ditches and inside artificial recharge zones. These are also considered high- or very high-priority constituents by the Board. The list also includes demeton, which has not been registered for use for more than 20 years; lindane, which has not been registered for outdoor use for 10 years; carbofuran, whose tolerances were revoked as of the end of 2009 (which essentially ends use) and which EPA plans to formally cancel; and molinate, which has been cancelled and whose use was not allowed after August 2009. DPR has sampled wells for the four remaining pesticides – diazinon, dimethoate, linuron, and methomyl - and not found them in groundwater. The LEACHM model DPR uses to prioritize pesticides on the Groundwater Protection List for monitoring indicates that diazinon and dimethoate are not expected to move to groundwater. LEACHM indicates that dimethoate has some potential to reach groundwater if all applications were to the soil but since most label uses are not soil applications, it would not be expected to reach groundwater. Linuron is the only remaining pesticide that has a realistic potential to move to groundwater. Thus, the economic assessment for the pesticide groundwater element may be based on incomplete and faulty information. Based on DPR's sampling experience and modeling, any monitoring required for pesticides other than diuron, linuron, and simazine, and the pesticides no longer registered for use, is not likely to result in detections.

99-23

Page 2-13

Statement 11: The document states that DPR's leaching and runoff GWPAs were used in Alternatives 2, 3, 4, and 5 to assign management practices and monitoring to various areas of the Central Valley. The leaching flow path is addressed through the implementation of nutrient and water management practices. The runoff portion is covered through two management practices. One is to reroute runoff with buffer strips (sediment traps), and the other is to prevent surface water inflow to abandoned wells. Well protection was based on one well for every 320 acres of land in the areas that are designated as vulnerable to runoff.

99-24

Comment 11: The document does not state what "water management" means, and only applies two runoff measures for pesticides: buffer strips and protection of abandoned wells. Since buffer strips apparently apply only to sediment-bound pesticides (see page 2-2), which do not threaten groundwater, the only measure that applies to the water soluble pesticides that have been found

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in groundwater in runoff GWPAs is designed to prevent surface water flow to abandoned wells. This leaves out the other pathways to groundwater, such as dry wells, unprotected water wells, temporarily unused wells, and ditches and drainage ponds dug below confining soil layers. It also leaves out all the other management practices that DPR has adopted in regulation to mitigate runoff as a pathway to groundwater (see 3CCR sections 6487.3 and 6487.4). The PEIR should address those additional pathways and management practices. 99-24 cont'd

Statement 12: Under all alternatives, water suppliers (irrigation or water districts) were assumed to be in full compliance with existing regulations. Because these entities do not apply high- or very high–priority COCs, their existing level of management practices were assumed to be sufficient to be in compliance with ILRP requirements.

Comment 12: This statement is confusing since irrigation and water districts use diuron, which appears to be listed as a high- or very high-priority COC in Table 2-5. 99-25

Page 2-14

Statement 13: A ratio of 1 acre of buffer strip is required for every 30 acres of irrigated lands.

Comment 13: A 40 acre parcel would require 1.33 acres of buffer, or 57,935 square feet. If this were spread over a ¼ mile downslope edge of a 40 acre field (1320 feet), this would result in a 44-foot buffer strip. It is uncertain whether the economic analysis accounts for the loss of production that would be associated with this size buffer zone in many, especially field and truck, crops. This size buffer zone could also conflict with the California Leafy Green Marketing Agreement and the "super metrics" adopted by the California food production industry to address food safety concerns. These issues should be addressed in the PEIR. 99-26

Page 2-16

Statement 14: The diagram indicates that in leaching GWPAs, water management is the management practice specified, and in runoff GWPAs, sediment trap and hedgerow/buffer strips are specified.

Comment 14: Again since the document assumes these practices only mitigate sediment runoff and thus relatively insoluble pesticides, no measures are specified for water soluble pesticides, which are those most likely to move to groundwater. The PEIR should also evaluate the management practices required for the use of pesticides listed in section 6800(a) in runoff GWPAs, which are specified in 3 CCR sections 6487.3 and 6487.4, and include them in the economic analysis. 99-27

Page 2-17

Statement 15: Table 2-9 gives the cost range for specified management practices. For the irrigation water management practice and pressurized irrigation management practice, two sources each are cited for the cost information.

Comment 15: For irrigation water management, the first source is a personal communication, and the second source, Imperial Irrigation District 2007, was not listed in the Chapter 6 99-28

Reference section. Thus, we could not determine the basis for the cost of the irrigation water management practice cost.

For the pressurized irrigation management practice, the first source, "NRCS 2010," leads to a web page with many NRCS technical guides. Without a more specific reference, the source of cost information cannot be determined. The second source, Imperial Irrigation District 2007, was not listed in the Chapter 6 Reference section. Thus, we could not determine the basis for the cost of the pressurized irrigation management practice cost. 99-28 cont'd

Page 2-19

Statement 16: Table 2-10 specifies the surface and groundwater monitoring cost breakdown for use in all program alternatives. The detailed chemistry for 20 COC samples taken once per year is estimated to cost $1500.

Comment 16: If groundwater monitoring is required for the pesticides listed for groundwater concern (8 pesticides), the DPR per pesticide analyte cost is typically $700 (unless a multi-residue screen is developed), which would bring the cost to $5600 per year for pesticide groundwater samples alone, if an analytical method is available. If other pesticides are required to be sampled and an analytical method is not available, the cost to develop a method can be as high as $20,000-$30,000 per analyte, depending on the detection limit required. Therefore, the cost estimates provided do not match the costs based on our experience. 99-29

IV. Appendix A. Staff Report

Page 36.

Statement 17: Figure 12 gives 2 ug/liter (2 ppb) as the "health advisory" level for diuron based on a 2005 USEPA reference.

Comment 17. That reference is not included in the reference section, and a search of that reference online did not show the term "diuron" or "health advisory." The 2 ppb is cited in the 2003 diuron reregistration eligibility decision as a drinking water level of concern. This should be clarified/corrected in the final report. 99-30

Page 48

Statement 18: "When these pesticides are applied to sites with sandy soils, shallow depth to groundwater, and either a wet climate or extensive use of irrigation, the risk of groundwater degradation is high."

Comment 18: While this statement is true, it should also be noted that Tulare County is one of the counties with the most wells contaminated by pesticides. Yet, most soils in the contaminated areas are hardpan soils, not sandy soils. 99-31

Statement 19: "Pesticide impacts on groundwater beneath agricultural areas, like nitrates, are determined most effectively by means of shallow (installed in first encountered groundwater) monitoring wells constructed with short screen lengths (Burow et al. 1998, 2007; Fuhrer et al. 1999; California GAMA Program 2008).

Comment 19: The reference "California GAMA Program 2008" is not listed in the Reference section. A subsequent 1999 report by the Burow, et al[1] (listed in the Reference section) states, on page 44, "In general, the concentrations and frequencies of pesticide detections discussed previously indicate that the ground water sampled from domestic wells was not much different from the ground water sampled at the adjacent monitoring wells." The report concluded, on page 46, "The differences in water quality results between ground water samples from existing domestic wells and monitoring wells installed during the study were generally not significant, although some contrast in the occurrence and concentrations of nitrate and pesticides was observed;" and, on page 47, "The occurrence of pesticides in ground water samples from the different wells indicates that ground water sampled from domestic wells was not much different from the ground water sampled in the adjacent monitoring wells." Based on these results and balancing the cost of installing a monitoring well vs. using those same resources to collect many more domestic well samples, the use of monitoring wells appears to only be justified where sufficient domestic wells are not present or inaccessible. This should be stated in the final report. 99-32

Pages 61-62 and 64

Statement 20: Resolution 68-16 (antidegradation) requires that any activity that results in discharge to existing high quality waters meet waste discharge requirements (WDRs) that result in best practicable treatment and control (BPTC). Several State Water Board water quality orders have evaluated what level of treatment or control is technically achievable using "best efforts." In determining BPTC, the discharger should compare the proposed method to existing proven technology; evaluate performance data (through treatability studies), compare alternative methods of treatment or control, and consider the method currently used by the discharger or similarly situated dischargers. The Regional Water Board may not "specify the design, location, type of construction, or particular manner in which compliance may be had with [a] requirement, order, or decree" (CWC 13360). However, the Regional Water Board still must require the discharger to demonstrate that the proposed manner of compliance constitutes BPTC (SWRCB Order No. WQ 2000-7). 99-33

"The long-term ILRP must comply with the antidegradation policies by requiring that, among others, the requirements implementing the long-term ILRP must result in use of BPTC where irrigated agricultural waste discharges may cause water quality degradation.

[1] Burow, K.R., J.L. Shelton, and N.M. Dubrovsky. 1998. Occurrence of nitrate and pesticides in groundwater beneath three agricultural land-use settings in the eastern San Joaquin Valley, California: USGS Water-Resources Investigations Rep. 97-4284. USGS, Sacramento, Ca.

Comment 20: This appears to be an onerous requirement. For example, the EIR documents identify improved irrigation management, pressurized irrigation, vegetative filter strips, and wellhead protection as four management practices that apply in certain situations. How would the discharger demonstrate these practices to be BPTC, what existing proven technology or control would these practices be compared to, and what "treatability studies" would the discharger use? Without these elements, how would the Board determine what level meets the antidegradation requirements?

99-33 cont'd

Page 122

Statement 21: Table 17 estimates the annualized costs of implementing management practices under the various alternative options to vary from $466 million under alternative 1 (the current program when fully implemented) up to $952 million for alternative 5. Total estimated costs for administration, monitoring, and implementing management practices vary from $478 million in the current program to $1.3 billion dollars for alternative 5. On page 170, the estimated cost of the recommended alternative is $492 million.

Comment 21: Based on the estimated 7 million acres of irrigated lands in the Central Valley (from Table 16, page 119), the annualized costs of implementing management practices would vary from $67/acre ($466million total) under alternative 1 (the current program when fully implemented) up to $136/acre ($952 million total) for alternative 5. The document states these are probably overestimates of actual costs, in large part because growers are already implementing the management practices. However, in light of the uncertainties of which pesticides must be sampled and analyzed, where and how often they must be sampled, and the cost of the analysis, we believe these are not overestimates. In addition, given these uncertainties it would seem reasonable to estimate a range of implementation costs, which the PEIR has not done.

As a point of reference for the pesticides-in-ground-water element only, the estimated ongoing fiscal and economic costs of implementing the DPR groundwater regulations adopted in 2004 were $4.3million or $.61/acre over the 7 million acres covered by the ILRP.

99-34

Page 128

Statement 22: The document lists the potential sources of funds to implement the irrigated lands program, including the federal Farm Bill (e.g., EQIP program), and various state and regional board grant and loan programs.

Comment 22: The EQIP program funds relatively few projects in California compared to the more than 33,000 growers that might need funding.

99-35

Page 131

Statement 23: ICF International only identifies one alternative (#5) that would require installation of substantial numbers of monitoring wells. The other alternatives that would require groundwater monitoring would rely on existing wells.

99-36

Comment 23: The ICF International approach appears to conflict with the Staff Report assessment that monitoring wells are the best way to evaluate pesticides in groundwater on page 48. This conflict should be reconciled, especially in light of Burow et.al. (see comment 19). 99-36 cont'd

Page 140

Statement 24: Staff are recommending regional water quality plans where water quality objectives are not being met with additional requirements to ensure the plans are designed to implement BPTC to minimize degradation. Individual water quality management plans would be required where regional plans have been ineffective.

Comment 24: It is not clear whether there are any areas without some degradation that would require BPTC implementation. Presumably, absence of pesticides in groundwater means neither regional plans nor BPTC implementation would be required. The scale for making those assessments is not clear. How close would a grower have to be to a contaminated well before he/she would have to implement management practices? 99-37

Page 141

Statement 25: Staff are recommending regional ground and surface water monitoring except in the case of "inability of regional monitoring to determine irrigated agricultural waste contributions," in which case individual monitoring would be required.

Comment 25: Guidelines should be given for how staff would determine "inability of regional monitoring to determine irrigated agricultural waste contributions." 99-38

Pages 143+

Statement 26: The footnote on page 143 states "The Central Valley Water Board recognizes that DPR is the lead State agency for regulating pesticide use. In implementing the long-term ILRP, the Board intends to work closely with DPR where waste discharge associated with overspray or other pesticide wastes cause water quality problems."

Comment 26: This statement needs clarification. It could mean that the Board decides that the DPR program is acceptable, in which case there would be no additional costs and regulatory requirements to address pesticides in groundwater. Alternately, it could mean that the Board decides that the DPR program is inadequate and that additional measures would be necessary and additional costs incurred. Without this determination in the PEIR or an acknowledgment of these possibilities and an estimation of the range of costs that might be involved, the assessment of the economic impacts of the ILRP is incomplete. 99-39

Pages 145-146

Statement 27: The approach would be to require more costly general waste discharge requirements in high priority areas, less costly conditional waivers in lower priority areas, discharge prohibitions where coverage under the ILRP program has not been obtained, and no 99-40

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regulatory program in areas where irrigated lands would not impact water quality (no such areas have yet been identified).

Comment 27: In the pesticides in groundwater arena, it is uncertain whether GWPAs would be classified as high priority areas that would be subject to the more costly general waste discharge requirements for groundwater protection. If so, growers being regulated by DPR in GWPAs would be subject to additional costly and arguably unnecessary regulatory requirements. We believe that growers adoption of management practices in GWPAs when using 3 CCR section 6800(a) pesticides meets the prioritization criterion of "management practices in place to protect water quality." Thus GWPAs should not be subject to Tier 2 requirements (see below). Tier 1 classification would make more economic sense and be a more efficient and less confusing regulatory framework for DPR's stakeholders. We encourage Board staff to include this in their report.

99-40 cont'd

Pages 150-151

Statement 28: The document gives criteria for determining priority. These are (1) irrigated agricultural operations identified as causing or contributing to a surface or groundwater problem; (2) [operations]located in a high-threat area based on environmental conditions (e.g., DPR/State Water Board groundwater vulnerability area, intensity of operations, geology, proximity to surface water bodies, or in an area of shallow groundwater); (3) management practices in place to protect water quality; and (4) demonstrated non-compliance with ILRP.

Comment 28: Should GWPAs be considered high priority areas? The levels of pesticides found in those areas have not exceeded maximum contaminant levels or other human health guidelines used by U.S. EPA (where health levels exist), and thus have not exceeded water quality objectives. Also, GWPAs could be considered "priority areas" under point (2), but since management practices are in place to protect groundwater quality (prioritization point 3), how would that impact its classification? What is the purpose of including point (3) in the prioritization scheme if these management practices are already in place by DPR in regulation and by growers via permit conditions? The document does not specifically classify GWPAs as "high priority" that would be subject to Tier 2 requirements. Would that be an issue negotiated between the third parties and the Board? Given that uncertainty, how can the Board realistically estimate the costs of the ILRP?

99-41

Page 152

Statement 29: Tier 1 requirements would be applicable in low-priority areas. Figure 22 on page 153 shows that low priority areas subject to Tier 1 requirements can be designated in high priority surface and groundwaters. "These requirements would be aimed to ensure that irrigated agricultural operations maintain or improve the existing level of water quality protection. Management objectives would establish goals for water quality protection that irrigated

99-42

agricultural operations would achieve through implementation of specific management practices. Under this tier, the Central Valley Water Board considers the existing level of management objectives as BPTC, and protective of surface and groundwater quality. Third-party groups would be required to describe the area's existing water quality management objectives in a report to the Central Valley Water Board. Management practices tracking, every 5 years, would be the method by which the Central Valley Water Board would evaluate, in general, whether operations are continuing to meet existing management objectives."

Comment 29: It is our contention that GWPAs should be used as an example of where Tier 1 requirements would apply in high priority groundwaters for pesticides listed in Title 3 of the California Code of Regulations (3CCR) section 6800(a) since appropriate management practices are in place for those pesticides by DPR regulation.

99-42 cont'd

It is uncertain how coalitions would track management practices every five years. Surveys could be conducted but how would survey information be verified? What practices would a grower identify in low priority areas? Would the Board provide the grower any guidance on what types of management practices should be listed, or design a survey with specific questions about management practices? Could the Board disapprove certain management practices? If so, what criteria would the board use for such a determination?

Page 153

Comment 30: In Figure 22, it appears that the "High priority surface or groundwater?" box refers to the classification of pesticides because if the answer to the question "High priority surface or groundwater?" is yes, Tier 2 requirements apply in high priority areas and Tier 1 requirements apply in low priority areas. This should be clarified in the final report. We reiterate that Tier 1 requirements should apply for use of 3 CCR section 6800(a) pesticides in GWPAs because they are subject to management practices by regulation. We also suggest that the Board specify that the coalition consult with DPR on which pesticides to monitor in a particular area. These could be one or more of the section 6800(a) pesticides, based on local use, and one or more of the 6800(b) pesticides based on local use, likelihood of application to soil and to the results of LEACHM modeling DPR uses to prioritize section 6800(b) pesticides for monitoring.

99-43

Pages 154-155 and Appendix D apply to the following group of statements

Statement 31: In high priority groundwater areas, irrigated agricultural operations would be required to implement management practices to achieve BPTC for the COC as part of the groundwater quality management plan (GQMP).

99-44

Comment 31: The goal of DPR's ground water protection program and required management practices is reducing pesticides residues to the California Department of Food and Agriculture Center for Analytical Chemistry's detection limit (currently 0.05 ppb). Would this be consistent with management practices to achieve BPTC for a COC?.

Statement 32: At least every five years, the Board will meet with third-party groups and other interested parties to evaluate the sufficiency of GQMPs. Appendix D, referenced on page 155.

99-45

further describes requirements for both surface water quality management plans (SQMPs) and GQMPs. The SQMP requirements appear similar to the current program. The GQMPs would be required to contain the following: (1) Identification of the groundwater quality management areas and associated constituents of concern addressed by the management plan.

99-45 cont'd

Comment 32: For pesticides regulated by DPR in GWPAs, we propose the coalitions could reference those GWPAs and pesticides and that those should be sufficient to satisfy these requirements.

Statement 33: (2) A summary and assessment of the available water quality data for the aquifers and parameters addressed by the management plan. Available data from existing groundwater quality programs can be used, including but not limited to the State Water Board's Groundwater Ambient Monitoring and Assessment, USGS, DPH, DPR, DWR, and local groundwater management programs.

99-46

Comment 33: We support use of all available data, but only if readily accessible.

Statement 34: (3) Identification of irrigated agriculture source(s)—general practice(s) or specific location(s)—that may be the cause of the water quality problem. If the potential sources are not known, a study design must be included to determine the source(s) or to eliminate agriculture as a potential source. Source identification can include more intensive sampling in the relevant aquifer or field studies to quantify the relevant waste discharge from irrigated lands. In lieu of conducting additional source analysis, the management plan can focus on ensuring that all growers are implementing practices that
achieve BPTC for the constituent(s) of concern.

99-47

Comment 34: Could the monitoring and investigations conducted by DPR in response to detections that resulted in the conclusion in DPR memoranda that the residues were due to nonpoint source agricultural use be used to meet the requirements of this point?

Statement 35: (4) Identification of practices to address the constituents of concern. Where an identified constituent of concern is a pesticide that is subject to DPR's groundwater protection program, the GQMP may refer to DPR's regulatory program for that pesticide and any requirements associated with the use of that pesticide.

99-48

Comment 35: We support this language and recommend equivalent language be added to address the previous statements from pages 154-155.

Statement 35: (5) Evaluation of management practice effectiveness. The approach for determining the effectiveness of the management practices implemented must be described. Acceptable approaches include field studies of management practices at representative sites and modeling or assessment to associate the degree of management practice implementation to changes in water quality.

99-49

Comment 35: Could the GQMP cite DPR field studies demonstrating effectiveness of management practices to meet this requirement? With a median 7-9 year lag time[4] between pesticide application and detection in well water, it will be difficult to associate "the degree of management practice implementation to changes in water quality" within the 5-10 - year compliance timeframes specified on page 159 of the Staff Report. This should be addressed in the PEIR.

99-49 cont'd

Statement 36: (6) Description of outreach to growers. The strategy for informing growers of the water quality issues that need to be addressed and relevant management practices must be described. The outreach strategy must describe the methods that will be used to inform growers and how the effectiveness of the outreach efforts will be evaluated. The third party may conduct outreach efforts or work with the assistance of the County Agricultural Commissioners, U.C. Cooperative Extension, Natural Resources Conservation Service, Resource Conservation District, or other appropriate groups or agencies.

99-50

Comment 36: Could outreach requirements for pesticides regulated in GWPAs be met during permit issuance when county agricultural commissioner staff discuss the various management practice options before agreeing to specify the appropriate practice on the permit?

Statement 37: (7) Tracking of management practice implementation. The process for tracking implementation of management practices must be described. The process must include a description of how the information will be collected from growers, the type of information being collected, how the information will be verified, and how the information will be reported.

99-51

Comment 37: Would this tracking only relate to 3 CCR section 6800(a) pesticides currently used in GWPAs? Or some other set of pesticides that are yet to be determined?

Statement 38: (8) Monitoring plan to track changes in water quality. A monitoring plan for the COC must be prepared to determine whether the management plan is improving water quality. The monitoring plan may need to include other sites or a different depth to groundwater (e.g., monitor first encountered groundwater versus supply wells) or frequency of sample collection to adequately assess the effectiveness of the management plan. Monitoring may include focused studies of selected agricultural management practices, constituents, or physical settings to inform refinement of GMA and constituent prioritization, or of practices that provide needed groundwater protection from degradation by constituents of concern. The monitoring plan must include an associated Quality Assurance Project Plan, and the data must be submitted electronically in a format required by the Central Valley Water Board. The intent of data verification is to provide confidence that the information being reported is accurate. This may

99-52

[4] http://cdpr.ca.gov/docs/emon/pubs/ehapreps/eh9704.pdf

include field visits to a subset of growers reporting their data or other methods to confirm data validity.

Comment 38: This may require coalitions to establish well monitoring networks, similar to DPR's current 70-well network in Fresno and Tulare counties, throughout the state in GWPAs and other areas the Board determines are priority areas for groundwater. DPR's annual cost for sampling and analysis of the network wells is approximately $140,000, using an eight-herbicide active ingredient screen. Costs could be higher or lower depending on the number of pesticides selected for analysis and the analytical costs at the specific laboratory.

99-52 cont'd

The Board should be aware that based on sampling results from the DPR well monitoring network, using the results of monitoring data within the first five year period would be insufficient time to see changes in all wells except a few most responsive wells. Thus, such monitoring is likely to indicate failure of the management practices to protect groundwater. In addition, the staff report does not specify the scope of any required well monitoring, which means that the economic impacts of the ILRP cannot be fully assessed.

Statement 39: (9) Schedules and milestones. Milestones and schedules must be described for the actions to be taken (e.g., outreach, management practice implementation), as well as for the anticipated improvements in water quality (e.g., milestones for declining trends in concentrations of constituents of concern). The schedule for achieving compliance with water quality objectives must be consistent with any compliance dates established in the relevant water quality control plan.

99-53

Comment 39: Based on Comment 38, realistic milestones for improvements in groundwater quality are not likely to be consistent with compliance dates discussed in the Staff Report.

Page 156

Statement 40: Under "Monitoring Provisions," the Board "intends that regional monitoring programs would be coordinated with DPR surface and groundwater monitoring, local groundwater management plans, the Central Valley Water Board Dairy Program, and other existing programs. The primary goal of this coordination is to prevent duplicative monitoring programs. For example, existing water quality data (e.g., Surface Water Ambient Monitoring Program, SWAMP data; DPR groundwater data; etc.) could be used, and the monitoring parameters would be tailored to the farm inputs and water quality issues in the watershed or groundwater basin.

99-54

Areas with insufficient information available to determine prioritization would be required to complete assessment monitoring or studies within 5 years of long term program adoption. The goal of the assessment would be to determine whether irrigated agricultural operations are causing degradation of surface or groundwater quality. However, the Central Valley Water

Board does not intend to monitor every water body in the Central Valley as part of the long-term ILRP. Therefore, "representative" monitoring and other specified information will be considered first in tier classification.

Comment 40: We support coordinated and representative monitoring to minimize monitoring costs of the program. Since the scope of representative monitoring has not been determined, it is uncertain how the Board can estimate the cost of the ILRP program.

99-54 cont'd

Pages 157-158

Statement 41: Under Tier 1 (low priority areas), the surface water element would track management practice implementation and monitor surface water once every five years, and reports results to the Board on the same schedule. For groundwater, growers must participate in regional groundwater monitoring program that would sample and report results every five years. Additional monitoring may be required where there is a water concern.

Under Tier 2 (high priority areas), the surface water element would require monitoring similar to the current program. The groundwater element would require participation in regional groundwater monitoring in coordination with other programs, such as DPR, conducting monitoring as follows:

(1) Regional monitoring for constituents of concern to provide baseline groundwater information and track trends in groundwater quality over time. Pesticide application tracking and associated modeling may be used to evaluate discharges to groundwater in place of monitoring.

99-55

Comment 40: The scope of regional monitoring is not specified. The first reference to COC in this staff report refers the reader to Chapter 4 for COC of groundwater concern. But a "find search" of Chapter 4 found no references to COC. It is uncertain how COC are identified and whether a pesticide detected by coalitions in groundwater would automatically be declared a COC or only if it exceeds some level of concern. This should be clarified in this document, and would apparently be needed to assess the economic impacts of the various alternatives. In addition, couldn't coalitions rely on wells previously sampled by DPR or others to help establish a baseline? Or would they be expected to establish their own baseline data?

Statement 41: (2) Targeted site-specific studies to evaluate the effects of changes in management practices on groundwater quality (this would occur only at a selected number of sites—the Fertilizer Research and Education Program [FREP] would be approached as a potential funding source for this monitoring).

99-56

Comment 41: Is the purpose of regional monitoring for trends also serve to evaluate the effects of changes in management practices on groundwater quality? Does the reference to FREP mean this element only targets fertilizers?

Page 159

Statement 42: Priority Surface Water Issues. Which water bodies are considered priority? Specific water bodies with beneficial uses identified in the Basin Plans; streams tributary to water bodies in the Basin Plan with aquatic life uses based on the "tributary rule"; tributary streams with identified municipal or domestic drinking water intakes; and water bodies with specific compliance time schedules established in the Basin Plans.

Which beneficial uses are considered priority? Aquatic life, drinking water, and human consumption uses in the above water bodies. Which pollutants are considered priority? Those pollutants that cause or contribute to a violation of water quality objectives associated with the priority beneficial uses and water bodies. Compliance time schedule—5 to 10 years. For watershed areas with multiple water body/pollutant issues to address, compliance schedules may be staggered between 5 and 10 years, but cannot exceed 10 years. 99-57

Comment 42: See Comment 38.

Statement 43: Priority Groundwater Issues. Which groundwater aquifers are considered priority?—aquifers with identified municipal or domestic drinking water wells; aquifers in which drinking wells were closed because of exceedances of water quality objectives. 99-58

Comment 43: In the pesticide arena, these two priority criteria are equivalent since the only wells closed because of exceedances of water quality objectives for pesticides are public water supply wells that contain the legacy fumigants - DBCP, 1,2-D, or EDB.

Statement 44: Which beneficial uses are considered priority?—drinking water uses (i.e., municipal and domestic supply). Which pollutants are considered priority? Those pollutants that cause or contribute to a violation of water quality objectives or degradation of groundwater quality associated with drinking water uses. 99-59

Comment 44: We assume that the reference to degradation of groundwater quality is in relation to the antidegradation policy. If so, it is interesting to note that the antidegradation policy is considered a priority for groundwater but not surface water. No currently registered pesticide violates water quality objectives in groundwater. What level will the Board determine is a degradation level for pesticides?

Page 161

Statement 45: Figure 23. Long-Term ILRP Prioritization Scheme Example. 99-60

Comment 45: The text box language describing Sub-area III is incomplete. Should the text box describing "Agricultural parcels" be amended to add "or managed wetlands"? Would Area B be considered low priority?

We appreciate the opportunity to review draft PEIR and look forward to working with you to develop a program that recognizes and builds on existing programs, and minimizes duplication

of efforts that can unnecessarily increase fiscal impacts on state and local agencies and economic impacts on the regulated public.

If you have questions about our comments please contact me or Mr. Mark Pepple of my staff at: mpepple@cdpr.ca.gov or (916) 324-4086

Sincerely,

Original Signature by

Lisa Ross, Ph.D.
Environmental Program Manager I
(916) 324-4116

cc: Mr. Mark Pepple, Staff Environmental Scientist
Dr. John Sanders, Environmental Program Manager II

3.1.2.1 Responses to Letter 99

99-1

The Central Valley Water Board intends to work closely with the California Department of Pesticide Regulation (DPR) in addressing water quality problems associated with pesticide use. The Draft PEIR, Appendix A (pages 79–80), describes some of the potential mechanisms for coordination of the Long-term ILRP and DPR's Groundwater Protection Program and highlights the need for additional, DPR/ILRP coordinated groundwater monitoring for pesticides.

Where pesticides are found in groundwater, management practices required by DPR would be considered a major component of any groundwater quality management plan. Likewise, all sources of groundwater and pesticide information available for the area will be reviewed and utilized to the extent possible (e.g., California Department of Water Resources [DWR], United States Geological Survey [USGS], California Department of Health Services [DHS], Lawrence Livermore National Laboratory, Groundwater Ambient Monitoring and Assessment (GAMA), county data, U.S. Environmental Protection Agency [EPA], and water and irrigation districts). Where the practices are effectively working to meet ILRP goals and objectives, additional practices would not be necessary. However, should feedback monitoring and review determine that the practices are not effective, the Board will work with DPR to determine how to most appropriately use the agencies' respective authorities to ensure implementation of additional practices.

The recommendations to notify and coordinate with DPR on review and approval of groundwater quality management and monitoring plans involving pesticides will be considered in the development of the Long-term ILRP.

99-2

See Comment Letter 96, Response 11.

99-3

See Master Response 17.

99-4

These suggestions will be considered in the development of the Long-term ILRP. Also see Comment Letter 104, Response 58.

99-5

See Master Response 17.

99-6

See Comment Letter 9, Response 10.

With respect to the Burow et al. study, the region under investigation did not have shallow groundwater and the domestic wells were completed in the regional aquifer which was the same depth as the monitoring wells. The use of domestic wells for monitoring areas that have shallow groundwater that is not tapped by the domestic wells would under report the impact.

99-7

See Master Responses 7 and 17.

The cost estimates were developed for a programmatic analysis. See Comment Letter 50, Response 8 and Comment Letter 99, Responses 54 and 55.

99-8

The Central Valley Water Board has been working with DPR in development of the Long-term ILRP. This cooperation will continue as the Board develops implementing mechanisms for the Proposed Program. The detail provided in the documents referenced by the comment is not needed to support the programmatic analysis contained in the PEIR. See Master Response 7.

99-9

Water quality objectives for protection of beneficial uses are established in Central Valley Water Board Water Quality Control Plans (Basin Plans). The ILRP is required to implement Basin Plan requirements—as described in the Draft PEIR, Appendix A, pages 56-57.

Costs have been estimated at the programmatic level for each of the alternatives in the Draft ILRP Economics Report and the Draft PEIR in Appendix A. Also see Comment Letter 99, Response 54.

99-10

See Comment Letter 99, Response 59.

99-11

See Comment Letter 99, Response 40 and Comment Letter 99, Response 1.

99-12

See Comment Letter 99, Response 38.

99-13

The Draft PEIR, Appendix A, Figure 22 (page 153) depicts the selection of implementation mechanisms and tiering under Alternative 6.

Also see Comment Letter 10, Response 4.

99-14

The term managed wetlands is defined in the Draft PEIR on p. 5.7-8. The Long-term ILRP is intended to regulate all lands irrigated to produce crops for commercial purposes that discharge waste to surface or groundwater, including retail and wholesale nurseries that meet this definition.

99-15

Implementation of one of the proposed Long-term ILRP alternatives would likely result in changes in agricultural irrigation practices, including those that involve switching from gravity to pressurized irrigation systems. CEQA directs government agencies to disclose to the public adverse

effects of their discretionary actions. As such, the Draft PEIR does not discuss in depth the relative degree of likely beneficial impacts of the ILRP alternatives. Water quality benefits derived from the management practices analyzed are discussed in the ECR and incorporated into this document by reference. Also see Master Responses 7 and 8.

The Draft PEIR addresses ground disturbing activities associated with changes in irrigation practices (see Table 5.5-8 on page 5.5-25; page 5.8-50, Impact FISH-2; and the general discussion of construction impacts on page 5.7-46, Impact BIO-3).

99-16

The impact analysis specifically discusses the impacts to groundwater from use of tailwater recovery systems (see Draft PEIR, Section 5.9, Hydrology and Water Quality, page 5.9-15).

99-17

See Master Response 17.

99-18

Irrigated lands operators are expected to address all operational practices that result in the discharge of waste to surface or groundwater. The range of management practices analyzed in the Draft PEIR are adequate under CEQA to allow the Central Valley Water Board to consider the likely costs and adverse environmental impacts of the Long-term ILRP alternatives. However, the range of practices are not intended to be comprehensive or represent all the actions growers must take to adequately control discharge of waste to waters of the state.

The general description of wellhead protection (Draft PEIR, page 5-2) referring to welded metal plates was used primarily for estimating costs; it is possible that other means of closing the wells could be implemented. The DWR methods for wellhead closure would be expected to result in a similar level of groundwater protection. Because this is a programmatic evaluation, the impact analysis was not specific to the exact method of wellhead closure; the analysis assumes that any closure method used would prevent the well from becoming a conduit for surface water to enter subsurface aquifers. In addition, the impact analysis did not assume that all wellhead protection would occur only on temporarily inactive wells. The Board assumes that a similar wellhead protection effort could be made on dry wells if these wells were likely to act as conduits for contaminated surface water to enter the groundwater.

99-19

The suggestions will be considered in the development of the Long-term ILRP.

99-20

The personal communication reference provided in the Draft ILRP Economics Report should be Barry, Maurice rather than Maurice, Barry. This does not affect the analysis of the Draft PEIR.

99-21

See Master Responses 7 and 19, and Comment Letter 108, Response 13.

99-22

See Comment Letter 123, Responses 55 and 65 and Comment Letter 100, Response 40.

99-23

See Master Response 17. Also see Comment Letter 99, Response 1.

99-24

See Master Response 7.

99-25

The comment is correct. Irrigation districts use diuron and other pesticides (e.g., for the control of weeds along the banks of a canal). At this time, districts' existing management practices, along with correct use and application of pesticides, are considered adequate to ensure that these pesticides do not end up in waterways. However, should district use of a pesticide (e.g., diuron) cause or contribute to a water quality problem, the Central Valley Water Board would require the district to implement practices to protect water quality. The Board will work with districts to determine whether regulation of their discharge would occur under the Long-term ILRP or under a separate program. Based on the work with five irrigation districts under the current ILRP, the Board does not believe there would be any potential environmental impacts not already addressed in the Draft PEIR; any additional costs for implementing proper pesticide application practices would be minimal.

99-26

See Master Responses 17 and 7.

99-27

The comments suggestion regarding GWPAs will be considered in the development of the Long-term ILRP. Also see Comment Letter 99, Responses 1, 5, and 40.

99-28

See Master Response 17.

99-29

See Master Response 17.

99-30

Information on the water quality objectives for diuron can be found in EPA's November 2009 Drinking Water Standards and Health Advisories Table. This document is available online at: <http://www.epa.gov/region9/water/drinking/files/DWSHATv09.pdf>.

The Draft PEIR, Appendix A has been modified to include this reference. See Chapter 4, Revisions to the Draft Program Environmental Impact Report, page 4-33 in this Final PEIR.

99-31

The statement referenced from page 48 of the Draft PEIR, Appendix A, describes one of the pathways pesticides may reach groundwater, not the only pathway. On page 47, the report provides that "Pesticides migrate to groundwater… primarily through run-in, or leaching." Where run-in is described on page 45: "Run-in transports surface water and its dissolved constituents directly to groundwater through porous or fractured bedrock, sinkholes, or poorly constructed wells." The comment provides a description of an area where leaching may not be the primary pathway of pesticide movement to groundwater. This information will be considered in development of implementation mechanisms under the Long-term ILRP.

99-32

See Comment Letter 99, Response 6. The GAMA reference will be removed and replaced with a National Water Quality Assessment (NAWQA) study (Gilliom, R.J., and Hamilton, P.A., 2006, Pesticides in the Nation's Streams and Ground Water 1992-2002 – A summary, USGS Fact Sheet 2006-3028). See Chapter 4, Revisions to the Draft Program Environmental Impact Report, pages 4-14 and 4-30 in this Final PEIR.

99-33

See Master Response 5.

99-34

See Master Response 17.

99-35

The Central Valley Water Board recognizes that the certainty of funding is low compared to the potential need for assistance. The impact associated with this disparity is discussed in Chapter 5, Section 5.10, Agriculture Resources.

See Master Response 17.

99-36

See Comment Letter 9, Response 10.

99-37

Under Alternative 6, regional groundwater quality management plans would be required in areas where groundwater is vulnerable to waste discharges associated with irrigated agriculture and in areas with water quality problems (i.e., not meeting objectives, degradation) (Draft PEIR, Appendix A, pages 150–151).

With respect to vulnerability zones (DPR and State Water Board), any operations within a vulnerability zone would be required to participate in a third-party regional management plan (see text box on page 151 of the Draft PEIR, Appendix A). Any wastes discharged from irrigated lands to groundwater are of concern, not just pesticides.

Additional information on the areas in which groundwater quality plans will be required will be provided during the continued development of the Long-term ILRP and its enforcing mechanisms.

99-38

The recommendation for individual monitoring where the *"third-party entity fails to provide necessary information"* (Draft PEIR, Appendix A, page 141) is not linked to whether or not the third-party is able to determine irrigated agricultural waste contributions. This statement is intended to notify individuals and third-parties that the Central Valley Water Board will require individual monitoring in cases where the third-party does not provide monitoring and reporting described in ILRP implementation mechanisms. Board authorities in the California Water Code (Section 13267) are applicable to the entity in control of the waste discharge. Therefore, in cases where a third-party violates a monitoring condition, the entities responsible for the waste discharge (irrigated agricultural operations) would be ultimately responsible for ensuring monitoring requirements are met.

99-39

See Comment Letter 96, Response 11 and Comment Letter 99, Response 54.

99-40

Under Alternative 6, the implementation mechanism (general WDRs, or conditional waivers) and priority level (Tier 1 or 2) will be established using existing data that provides information on the following: pesticide impacts, Groundwater Protection Areas, 303(d) listed waterways, nitrate and other nutrient impacts as well as salinity data, depth to groundwater, and soil type (see Priority Factors, page 150, Draft PEIR, Appendix A). Also refer to the highlighted portion of page 151 of the Draft PEIR, Appendix A which explains identification of DPR/State Water Board groundwater vulnerability areas as priority factors.

As stated in the Draft PEIR, Appendix A, under Alternative 6, State Water Board vulnerability zones and DPR Groundwater Protection Areas would be considered high priority (Tier 2) areas for groundwater protection. Regional groundwater quality management plans would be required to describe water quality management practices to be implemented. For use of 6800(a) pesticides, described in this comment, management practices would already be required in Groundwater Protection Areas. While these areas would not be classified as Tier 1 areas, additional practices for 6800(a) pesticides would likely not be necessary because of practices already in place under DPR's program. Also, monitoring would be coordinated among the programs. Therefore, ILRP Tier 2 monitoring for 6800(a) pesticides may not be necessary (e.g., DPR may already conduct monitoring). Also see Comment Letter 99, Response 1.

99-41

Comment Letter 99, Response 1; Comment Letter 99, Response 40; and Comment Letter 99, Response 54.

99-42

The comments suggestion regarding Groundwater Protection Areas will be considered in the development of the Long-term ILRP. Also see Comment Letter 99, Response 40, and Comment Letter 99, Response 1.

Under Alternative 6, third-party groups would be responsible for tracking management practices, developing surveys, verifying information collected, and providing education and guidance on water quality management practices to meet water quality standards. However, the Central Valley Water Board would work with third-parties in approving any water quality management plans. Generally, the Board would not require or disapprove management practices. California Water Code Section 13360 prohibits the Board from specifying the manner of compliance with water quality objectives. The Board would require changes in management in order to ensure water quality objectives and other state policies are met.

99-43

See Comment Letter 99, Response 40.

See Comment Letter 99, Response 1.

These recommendations will be considered in the development of the Long-term ILRP.

99-44

See Comment Letter 5, Response 1 and Master Response 5. The BPTC standard is based on the practice or treatment technology employed rather than a laboratory detection limit. For pesticides associated with DPR's Groundwater Protection Program, the Central Valley Water Board would work with DPR to identify BPTC for any currently registered pesticides detected in groundwater.

99-45

See Comment Letter 99, Response 1.

99-46

The support for utilizing accessible existing groundwater quality data in the ILRP will be considered in the development of the Long-term ILRP.

99-47

Yes, under Alternative 6, monitoring conducted by other programs would be utilized as appropriate (Draft PEIR, Appendix A, pages 156–157).

99-48

See Comment Letter 99, Response 1.

99-49

See Comment Letter 99, Response 1 and Comment Letter 44, Response 2.

Requiring the GQMP to assess performance would be useful; however, this analysis did not consider that specific action.

See Master Response 13. This suggestion will be considered in the development of the Long-term ILRP.

99-50

The Central Valley Water Board agrees that agricultural commissioner participation in this process is a benefit. The Board appreciates all efforts by county commissioners to discuss best practices for protecting water quality with their local growers, including opportunities presented during the pesticide use permitting process.

99-51

See Master Response 7. Also, see Comment Letter 50, Response 8 and Comment Letter 99, Responses 54 and 55.

Tracking of management practice implementation would not track individual constituents. Constituents, including pesticides, would be monitored through the water quality sampling program.

This is a programmatic document. Actual implementation should require a description of the data collection, verification and reporting is done.

Tracking is for practices not constituents. Constituents would be followed with water quality sampling.

99-52

To the extent possible, groundwater monitoring will utilize existing wells. If appropriate wells do not exist in an area or region, installation of a monitoring well(s) will be considered. See Comment Letter 99, Response 36.

The Central Valley Water Board recognizes that a variety of factors affect the time necessary to produce measurable effects to groundwater quality (depth to first encountered groundwater, lithology of the vadose zone and aquifer; travel times within the vadose zone and hydraulic conductivity in the aquifer; the groundwater gradient; pumping activities; and constituent of concern degradation, attenuation, nitrification/denitrification to name a few). It is for this reason that staff included targeted, site-specific studies to evaluate the effects of changes to management practices (Alternative 6, Draft PEIR, Appendix A, page 158). Such targeted studies will be conducted in areas most likely to have relatively rapid aquifer response times (shallow groundwater, granular soils, high groundwater gradients or rapid extraction rates). Based on the effectiveness of a management practice that is subject to this targeted review, a recommendation may be made to implement the management practice in other areas that have similar water quality issues.

See Comment Letter 96, Response 40.

99-53

See Master Response 12 and Comment Letter 1, Response 15.

99-54

The support for coordination of monitoring requirements will be considered in the development of the Long-term ILRP.

Programmatic-level monitoring costs have been estimated for each of the alternatives using information from the current ILRP, Kings River Coalition, DPR, USGS, and groundwater vulnerability models (DPR/State Water Board). The methods for estimating groundwater monitoring and management costs for ILRP alternatives are described in Chapter 2 of the Draft ILRP Economics Report. These costs have been considered at a programmatic level, without detail for any specific area/region or constituent of concern. However, to the extent that DPR or other programs have developed monitoring or required management practices for an existing water quality concern, Alternative 6 is intended to coordinate with these programs. This coordination would work to reduce the costs associated with the ILRP management and monitoring because the costs have been absorbed by other programs. Consequently, the Economics Report may actually overestimate costs for instances where there would be coordination among programs.

99-55

In response to the comment that the term "constituents of concern" is not well defined in the Draft PEIR or Draft ILRP Economics Report, the PEIR has been modified to include the following definition for constituent of concern: "Waste constituent discharged from irrigated agricultural operations with the potential to degrade surface or groundwater quality or contribute or cause exceedances of water quality objectives." See Chapter 4, Revisions to the Draft Program Environmental Impact Report, page 4-29 in this Final PEIR.

The methods for estimating groundwater monitoring costs for ILRP alternatives are described in Chapter 2 of the Draft ILRP Economics Report. These costs have been considered at the programmatic level, without detail for specific area/ region or constituent of concern. For example, page 2-19 of the Draft ILRP Economics Report provides a cost estimate for monitoring basic parameters (e.g., pH, EC, nitrates, E. coli) and up to 20 constituents of concern (organics, boron, selenium). These costs, along with regional monitoring costs from Kings River Coalition, DPR, and USGS were used to estimate the potential costs of groundwater monitoring. During the development of the waivers/ WDRs to implement the ILRP, additional cost analyses may be conducted.

Where appropriate, DPR data as well as other groundwater monitoring data collected through a variety of programs (Dairy General Order, GAMA, DWR, etc.) would be used to establish the existing groundwater characteristics for an area (referred to as "baseline" in the comment). If such information is unavailable or nonexistent, the data would need to be developed through the implementation of a monitoring program. The form of the monitoring program will be determined by the alternative chosen for implementing the Long-term ILRP. Under Alternative 6, groundwater monitoring would be performed using a regional approach that employs existing wells to the extent possible. Also see Comment Letter 9, Response 10.

99-56

It is envisioned the regional groundwater monitoring will be used to investigate water quality in irrigated agricultural areas throughout the Central Valley. Some of these areas have existing water quality data and some do not. In addition to providing initial data, the regional monitoring program will provide information on trends in water quality over time. Nitrate would be one of the

constituents monitored. Additional constituents to be monitored may include pesticides, total dissolved solids, pH, total organic carbon, and any other constituent of concern identified for an area.

Special studies monitoring would be utilized to evaluate management practice changes made to address a water quality concern. Special studies monitoring would be conducted in areas with shallow groundwater, granular soils, and high use of constituents of concern. These factors will allow for a relatively rapid assessment of the effectiveness of the management practice under evaluation. Regional or trend monitoring would likely be much slower in detecting such effects. FREP will be approached for potential funding where appropriate.

99-57

Costs have been estimated at the programmatic level for each of the alternatives in the Draft ILRP Economics Report and the Draft PEIR, Appendix A. Also see Comment Letter 99, Response 55.

99-58

This information will be considered in the development and implementation of the Long-term ILRP.

99-59

In accordance with the Antidegradation Policy, any reduction in water quality, of a "high quality water," would be considered degradation. See Comment Letter 45, Response 16.

The comment correctly indicates that the time schedule prioritization system describes that degradation would be considered for groundwater, but does not specify for surface water. Antidegradation requirements apply to both surface and groundwater. The suggestion that surface water degradation be a factor in time schedule prioritization will be considered in development of the Long-term ILRP.

99-60

See Comment Letter 1, Response 23. Area B would be considered low priority, or Tier 1, as described in Figure 23 (page 161).

3.1.3 Letter 120—California Department of Transportation, Tom Dumas, Chief, Office of Metropolitan Planning

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Comment Letter IL120

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Various Counties including Stanislaus
Draft Program Environmental Impact Report
Waste Discharge Regulatory Program for
Irrigated Lands within the Central Valley Region

Ms. Megan Smith
ILRP Comments
630 K. Street, Suite 400
Sacramento, CA 95814

Dear Ms. Tencati:

The California Department of Transportation (Caltrans) appreciates the opportunity to review and comment on the above subject project. We have circulated a copy to our functional units for review and Caltrans has the following comments:

Environmental

- Caltrans has responsibility for the maintenance and operation of State and Interstate highways within California. Any proposals that would affect the State Highway System are of concern to the Department. Caltrans Stormwater and Hydraulics may have concerns about the effects of potential changes in regulation to irrigation runoff into State highway facilities. This proposal should be reviewed by Stormwater and Hydraulics. 120-1

The Environmental Maintenance Planning Services Branch (MPS) has reviewed the Draft PEIR to identify activities that may occur within Caltrans rights of way and require issuance of Encroachment Permits by Caltrans. Such activities would not be proposed at the program level. Activities undertaken by individuals or "water quality coalitions" to comply with waste discharge requirements or to qualify for waivers from CVRWQCB may require Encroachment Permits from Caltrans; those individuals or coalitions would be responsible for obtaining permits when those activities are proposed. 120-2

As defined in CEQA section 21069, Caltrans would act as a Responsible Agency for projects requiring an Encroachment Permit. An application for an Encroachment Permit must include appropriate environmental studies and a copy of the environmental document adopted by the Lead Agency. These documents should identify Caltrans as a Responsible Agency and should include an analysis of 120-3

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potential impacts to any cultural resources, biological resources, hazardous waste locations, and other resources within Caltrans right of way. Appropriate avoidance, minimization, and mitigation measures should be identified.

120-3 cont'd

Caltrans encourage contacting the Native American Heritage Commissions: 915 Capitol Mall, Room 364, Sacramento, CA, 95814, Telephone (916) 653-4082, Fax (916) 657-5390 for advice on consulting with Native Americans regarding any cultural concerns within the project area.

120-4

If you have any questions, please contact Janet P. Jaramillo at (209) 942-6022 (email: jjaramil@dot.ca.gov) or me at (209) 941-1921. We look forward to continuing to work with you in a cooperative manner.

Sincerely,

Janet P. Jaramillo

-for- TOM DUMAS, Chief
Office of Metropolitan Planning

c: Joshua Mann, Stanislaus County Planning & Community Development

3.1.3.1 Responses to Letter 120

120-1

The ILRP would have no effect on the California Department of Transportation (Caltrans) rights-of-way. Implementation of the proposed Long-term IRLP would improve water quality and would not result in adverse effects related to irrigation runoff that reaches Caltrans facilities.

120-2

This comment will be considered in development of the Long-term ILRP.

120-3

This comment will be considered in development of the Long-term ILRP.

120-4

This comment will be considered in development of the Long-term ILRP.

3.2 Regional and Local Agency Comments and Responses

This section contains comment letters received from regional and local agencies and responses to those comments.

Table 3-3. List of Comment Letters from Regional and Local Agencies

Letter	Agency	Comment Letter Signatory
80	Arvin-Edison Water Storage District	Steve Collup, Engineer-Manager
91	Arvin-Edison Water Storage District	Steve Collup, Engineer-Manager
3	Chowchilla Red Top Resource Conservation District	Tim Coelho, Director
98	City of Sacramento, Department of Utilities	Sherill Huun, Supervising Engineer
41	Colusa Glenn Subwatershed Program	Larry Domenighini, President
119	Colusa Glenn Subwatershed Program	Larry Domenighini, President
37	County of El Dorado Board of Supervisors	Norma Santiago, Chair
107	Dixon / Solano Resource Conservation District	John S. Currey, District Manager
48	El Dorado County Water Agency	James R. "Jack" Sweeney, Chairman, Board of Directors
142	Fire Safe Council of Nevada County	Joanne Drummond, Executive Director
1	Kern Delta Water District	L. Mark Mulkay, General Manager
118	Kern Delta Water District	L. Mark Mulkay, General Manager
143	Nevada County Consolidated Fire District	Tim Fike, Fire Chief
129	Penn Valley Fire Protection District	Gene Vander Plaats, Fire Chief
47	Plumas County Flood Control and Water Conservation District	Brian L. Morris, General Manager
10	Regional Council of Rural Counties	Nick Konovaloff, Legislative Analyst
95	Sacramento County Farm Bureau	Charlotte Mitchell, Executive Director
116	Sierra County Board of Supervisors	Dave Goicoechea, Chairman of the Board
134	Stanislaus County Environmental Review Committee	Christine Almen, Senior Management Consultant
102	Sutter County Resource Conservation District	James Cornelius, P.E., Water Resources Engineer
127	United Auburn Indian Community of the Auburn Rancheria	Greg Baker, Tribal Administrator
45	Westlands Water District	Orvil D. McKinnis Jr., Watershed Coordinator
108	Wheeler Ridge-Maricopa Water Storage District	Thomas Suggs, P.E., P.G., H.G., Staff Engineer

3.2.1 Letter 80 and 91—Arvin-Edison Water Storage District, Steve Collup, Engineer-Manager

Comment Letter IL80

ARVIN-EDISON WATER STORAGE DISTRICT

20401 BEAR MOUNTAIN BOULEVARD
MAILING ADDRESS: P.O. BOX 175
ARVIN, CALIFORNIA 93203-0175

TELEPHONE (661) 854-5573
FAX (661) 854-5213

EMAIL arvined@aewsd.org

September 27, 2010

VIA ELECTRONIC MAIL
ILRPcomments@icfi.com

ILRP Comments Ms. Megan Smith 630 K Street, Suite 400 Sacramento, CA 95814 Joe Karkoski California Regional Water Quality Control Board, Central Valley 11020 Sun Center Drive, Suite 200 Rancho Cordova, CA 95670-6114	Katherine Hart, Chair Cheryl K. Maki, Vice Chair Julian C. Isham, Board Member Karl E. Longley, Board Member Sandra O. Meraz, Board Member Dan Odenweller, Board Member Robert G. Walters, Board Member California Regional Water Quality Control Board, Central Valley 11020 Sun Center Drive, Suite 200 Rancho Cordova, CA 95670-6114

Dear Ms. Smith, Mr. Karkoski, Board Chair Hart and Board Members Maki, Isham, Longley, Meraz, Odenweller and Waters:

Arvin-Edison Water Storage District (District) hereby incorporates by reference the extensive comments submitted this date by the Southern San Joaquin Valley Water Quality Coalition (Coalition), among other things pointing out the deficiencies of the subject Draft Environmental Impact Report, Economic Evaluation, and Staff Report for the Irrigated Lands Regulation Program (ILRP). The District provides the following additional comments, including importing the Coalition comments, and on behalf of this District and our landowners, which covers approximately 130,000 acres in southeastern Kern County. The District defers to the expertise of the Coalition in these matters as it applies to the Southern San Joaquin Valley generally, and wishes to point out the "real world" factors as it relates to water quality in our area. 80-1

The District has been engaged in conjunctive use of surface and groundwater as well as groundwater banking projects since the mid '60s and since then has imported approximately 6.8 million acre-feet to the area for various purposes. As pointed out in the Coalition comments and particularly the engineering analysis, the best way to maintain

Page 1 of 2

and improve groundwater quality is to import water. In our case, the base supply is high quality Friant-Kern water which the District aggressively and actively defends. Maintenance of this and other high quality supplies will have a better effect and potentially improve groundwater quality than any of the means proposed in the referenced DEIR and ILRP Staff Report, many of which proposals are draconian and unnecessary.

The District believes the best strategy for the Regional Board to pursue to maintain and improve water quality would be to encourage its sister agencies, like water districts, to take appropriate actions affecting their import of surface water to the San Joaquin Valley to insure those historical imports continue, to among other things, maintain groundwater quality. Irrigating agricultural lands by importing surface water is beneficial to the groundwater basin. Therefore the erroneous link, made by Regional Board Staff, that irrigated agriculture and resultant activities are a potential waste discharge to groundwater is greatly simplified and a false assumption.

80-1 cont'd

The District encourages you to work with the Coalition and follow the advice of its comments to implement meaningfully measures to help maintain water quality in our region.

Sincerely,

Steve Collup
Engineer-Manager

cc: Jeevan Muhar, P.E.
Ernest Conant, Esq.

3.2.1.1 Responses to Letter 80

Note: Letter 91 is a duplicate of Letter 80.

80-1

See responses to Comment Letter 111.

The Central Valley Water Board acknowledges that, in some locations, the use of imported surface water for agricultural irrigation may have beneficial effects on local groundwater quality, relative to the use of local groundwater as an irrigation water source. However, a number of researchers, including Thomas Harter (2007), report findings that indicate irrigated agriculture practices (such as use of fertilizers and some pesticides) contribute to the contamination of the underlying groundwater aquifer.

The Board appreciates the informative comment on the District's surface water imports and how good quality surface water benefits groundwater quality when used for irrigation purposes.

In many cases, the comment is accurate about how good quality water benefits groundwater quality. However, in many cases, combined with other factors such as use of fertilizers and some pesticides, this is not the case. For example, Thomas Harter analyzed the use of fertilizers on California farms in 2007 and estimated that on average more than 80 pounds nitrogen per acre per year (lbs N/acre/year) may leach into the groundwater beneath irrigated lands, usually as nitrate. [Footnote 4: Harter, Thomas (2009) Agricultural Impacts on Groundwater Nitrate. Southwest Hydrology, volume 8, number 4.] Harter concluded that "without attenuation, 80 lbs N/acre/year would lead to groundwater NO_3-N concentrations at the water table that are two to four times higher than the maximum contaminant level (MCL)." There are many other studies that prove the connection between irrigated agriculture and how it affects groundwater quality.

3.2.2 Letter 3—Chowchilla Red Top Resource Conservation District, Tim Coelho, Director

Comment Letter IL3

Chowchilla Red Top
Resource Conservation District
Post Office Box 531
Chowchilla, CA 93610

August 19, 2010

ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814
ILRPcomments@icfi.com

RE: Opportunity for Public Comment on Draft Program Environmental Impact Report for a Waste Discharge Regulatory Program for Irrigated Lands within the Central Valley Region

To whom it may concern:

We are aware that the California Regional Water Quality Control Board, Central Valley Region, as the lead agency, has released a Draft Program Environmental Impact Report for a waste discharge regulatory program for irrigated lands within the Central Valley Region.

We are also aware that the Draft PEIR evaluates and describes the potential environmental impacts associated with the ILRP, identifies those impacts that could be significant, and presents mitigation measures, which, if adopted by the Central Valley Board or other responsible agencies, could avoid minimize these impacts.

3-1

Our organization, the Chowchilla Red Top Resource Conservation District, would like to take a position on how the SWQCB is changing their scope of the Waste Discharge Regulatory Program. After discussion we would like the California Regional Water Quality Control Board to stay within their original task. This means to only worry about surface water and surface water run-off. Do not involve yourself in groundwater.

Thank you for recording this with the other comments during your comment period.

Sincerely,

Tim Coelho

Tim Coelho
Director
Chowchilla Red Top Resource Conservation District

3.2.2.1 Responses to Letter 3

3-1

See Comment Letter 74, Response 1.

3.2.3 Letter 98—City of Sacramento, Department of Utilities, Sherill Huun, Supervising Engineer

Comment Letter IL98

DEPARTMENT OF UTILITIES
ENGINEERING SERVICES DIVISION

CITY OF SACRAMENTO
CALIFORNIA

1395 35th AVENUE
SACRAMENTO, CA
95822-2911

PH 916-808-1400
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September 27, 2010
101789:EC

ILRP Comments
Ms. Megan Smith
Central Valley Regional Water Quality Control Board
630 K Street, Suite 400
Sacramento, CA 95814

VIA EMAIL: ILRPcomments@icfi.com

Subject: Comments on Draft Public Environmental Impact Report for a Waste Discharge Regulatory Program for Irrigated Lands within the Central Valley

Dear Ms. Smith:

The Sacramento River Source Water Protection Program appreciates the opportunity to provide comments on the Draft Public Environmental Impact Report for a Waste Discharge Regulatory Program for Irrigated Lands within the Central Valley (Draft PEIR). We are providing several general comments regarding the overall development of the Waste Discharge Regulatory Program as well as several specific comments on the published documents.

Overall, we continue to support the acknowledgment of the need to protect beneficial uses. Protection of public health and safety through protection of the quality of sources of drinking water should remain one of the State's highest priorities.

- We support the continuation of watershed groups as the primary mechanism for implementing the long term program and believe that significant progress has been made under the current Conditional Waiver Program.

98-1

- We support a reasonable monitoring program designed to continue to identify where there are problem areas, what corrective actions are needed, and to ascertain that the remedies are successful. We believe that these programs need to be flexible in nature to adjust for changes in conditions, such as agricultural management practices, regulatory standards, and identification of new constituents of interest. We believe that these monitoring programs need to include drinking water constituents of interest related to agriculture, including constituents with primary and secondary drinking water

DEPARTMENT OF UTILITIES

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standards and those with treatment technology requirements. This would include herbicides, pesticides, total organic carbon, bromide, and microbiological constituents. 98-1 cont'd

- We support the coordination with other federal and state regulatory programs to ensure that issues are being addressed comprehensively, without duplication or conflict.

Specifically, we have several concerns related to protection of the drinking water beneficial use.

- Page 3-7, Alternative 1 Monitoring Requirements (Table 3-2): We believe that total organic carbon and bromide need to be specifically listed, given the special study conducted by the California Rice Commission indicating large amounts of carbon in rice drainage. Also, the note indicates that the current program provides flexibility to reduce monitoring. We believe this note should be expanded to allow for flexibility to expand as well if conditions change and require addition of new constituents. 98-2

- Page 3-8, Alternative 2 Optional Watershed or Area Management Objectives Plan: It is indicated that areas implementing management objective plans would be allowed to reduce surface water monitoring. We do not support the reduction of monitoring until there has been documentation of success of the management program and sufficient verification procedures have been put in place to confirm that the management practices are being successfully implemented. Without monitoring data, it will be impossible to determine whether the practices are effective. We strongly recommend that some monitoring continue as verification. 98-3

- Page 3-16, Alternative 3 Monitoring Provisions: This alternative does not include a water quality monitoring component. We strongly disagree with this philosophy as it does not allow for identification in changes to source water quality conditions, whether improvements or degradation, and does not allow for assessment of management practices. We recommend that the Regional Board modify this alternative to include at least some form of monitoring designed to assess overall watershed conditions and effectiveness of management practices. 98-4

- Page 3-17, Alternative 4 Criteria for Tier System: The criteria outlined here appear to apply to Alternatives 2 and 5 as well. Our major concern is with understanding when the Regional Board will be conducting the tier ranking and how frequently it will be updated. Agricultural use patterns (i.e. crop types, pesticides applied, fertilizer use) can vary significantly and therefore field rankings could change. It seems that there is a large discretionary interpretation on this item which could significantly affect the management of the fields. We strongly encourage the Regional Board to provide more specific information on the criteria for tier ranking and the procedures for triggering a revised ranking. 98-5

- Page 3-24, Alternative 4 Surface Water Monitoring: The individual monitoring requirements have been laid out quite specifically based on timing of discharges and storm events. We are concerned that this concise timing may reduce or eliminate the potential to capture periods of peak pesticide application with relation to discharge. Our experience with the Rice Pesticide Program strongly supports timing sampling to periods of peak pesticide use. We recommend that there should be program flexibility to allow 98-6

for determining which sample timing method is more appropriate based on crop type, irrigation practices and pesticide application practices.

98-6 cont'd

- Page 3-28, Alternative 5 Monitoring Provisions: We have the same comment as above for Alternative 4.

- Appendix A, Page 31 – Malathion and Thiobencarb Evaluation: The concluding paragraph of this discussion states that malathion and thiobencarb exceedances caused by rice applications in the Sacramento River Basin are addressed through the Central Valley Water Board's Rice Pesticide Program, rather than the Irrigated Lands Regulatory Program (ILRP). Please provide clarification regarding coverage of malathion use on wild rice under the ILRP through the Sacramento Valley Water Quality Coalition.

98-7

We appreciate the opportunity to provide comments on the Draft PEIR. We sincerely believe that development of this long-term program will continue the improvements in water quality and protection of beneficial uses that have begun under the Conditional Waiver Program. Please call Elissa Callman at (916) 808-1424 if you have any questions on our comments or need additional information.

Sincerely,

Sherill Huun
Supervising Engineer

cc: Marty Hanneman, City of Sacramento Dept of Utilities
Dave Brent, City of Sacramento Dept of Utilities
Mike Yee, City of Sacramento Dept of Utilities
Roland Pang, City of Sacramento, Dept of Utilities
Forrest Williams, Sacramento County DWR
Vicki Butler, Sacramento County DWR
Amy de la Salle, Sacramento County DWR

3.2.3.1 Responses to Letter 98

98-1

Comment noted.

98-2

See Comment Letter 99, Response 56. This comment will be considered in development of the Long-term ILRP.

98-3

Under Alternative 2, watershed-based monitoring would be reduced, but operators would be required to track and monitor the effectiveness of practices implemented under the plan. The comment's support to include some amount of monitoring, as described in Alternatives 4, 5, and 6, will be considered in the development of the Long-term ILRP.

98-4

The Draft PEIR, Appendix A evaluates whether each of the alternatives is consistent with the program goals and objectives, California Water Code, NPS Policy, and Antidegradation requirements. In this evaluation, Alternative 3 was not fully consistent with the NPS and Antidegradation policies, mainly because the alternative does not specify water quality monitoring (Draft PEIR, Appendix A, pages 107–116 and 165–168). The knowledge gained in this evaluation of alternatives has been used to develop Alternative 6, which includes surface and groundwater monitoring.

98-5

Alternative 4's tier system would be implemented at the individual field level; this approach would not apply under Alternatives 2 and 5 as suggested in the comment. The Central Valley Water Board would be responsible for enrollment and assessing tier placement for individual fields under Alternative 4. These steps would occur as part of the application process for enrollment (see Draft PEIR, Section 3.5.3, first bullet item under Regulatory Approvals, page3-21). Operations would be required to submit an annual certified statement describing whether changes have been made that would affect tier placement (see Draft PEIR, Section 3.5.3, last bullet item under Regulatory Approvals, page 3-22). Reassignment of field tiering could occur during annual review of the certifications. These details will be considered in the development of a Long-term ILRP.

98-6

The individual sampling design described in Alternative 4 is specific to irrigation discharges and storm water events. The concern is that the sampling requirements under this alternative are too specific and my lead to inadequate characterization of waste discharge. In the event that the recommended alternative includes individual sampling, the comment's recommended flexibility will be considered in the development of any orders requiring such monitoring.

98-7

The Draft PEIR, Appendix A (page 31) will be modified to clarify that the Rice Pesticides Program does not cover discharges of pesticides and other wastes associated with wild rice. The ILRP provides coverage for waste discharges to state waters associated with wild rice. See Chapter 4, Revisions to the Draft Program Environmental Impact Report pages 4-11–4-12 in this Final PEIR.

3.2.4 Letter 41 and 119—Colusa Glenn Subwatershed Program, Larry Domenighini, President

Comment Letter IL41

Colusa Glenn

Subwatershed Program

P.O. Box 1205, Willows, California 95988 - Phone (530) 934-8030 - Email cgsubwatershed@sbcglobal.net

September 22, 2010

Pamela Creedon, Executive Officer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive
Rancho Cordova, California 95670-6114

RE: ***Comments on Long Term Irrigated Lands Regulatory Program Programmatic Environmental Impact Report (PEIR), Recommended Program Alternative (Recommended Program), and Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (Economic Analysis)***

Dear Executive Officer Creedon:

On behalf of the 1,700 plus members of the Colusa Glenn Subwatershed Program (CGSP) with over 280,000 acres of irrigated and managed wetlands enrolled in the Conditional Waiver of Waste Discharge, the following comments, questions and suggestions are made on the *Programmatic Environmental Impact Report (PEIR), Recommended Program Alternative (Recommended Program), and Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (Economic Analysis)* released on July 28, 2010.

As a member of the Sacramento Valley Water Quality Coalition (SVWQC), the CGSP appreciates the opportunity of the year-long stakeholder process. It allowed for discussion of important water quality issues, interpretation of policies (e.g. Tributary Rule, anti-degradation), presentation of data and modeling on key constituents of concern, and transparency during the development of the five alternatives. As we believe, the SVWQC has been and will be a key component in allowing for a successful Irrigated Lands Regulatory Program (ILRP). 41-1

The Regional Board staff appears to have crafted a document that recommends ***Best Performing Program Elements*** (Page 136-142) which are responsive to comments and concerns made by the agricultural and water quality coalition stakeholders during both the year-long stakeholder process as well as during review of the two iterations of the straw proposals earlier

this year. Being able to view the two straw proposals, in advance of the PEIR, is an opportunity we greatly appreciated. 41-1 cont'd

Now to our comments, questions and suggestions:

- The Recommended Program is a major expansion of the current ILRP. It will place increased regulatory financial burdens on Sacramento Valley agriculture that bear no correlation to the need for protection of water quality. In fact, the water quality testing performed by agriculture during the ILRP has shown very few water quality problems caused by agriculture. 41-2

- The Regional Board estimates in the PEIR that costs to administer the program will range from approximately $4,000,000 to $66,000,000 depending on the alternative selected. Upwards of 97% of these costs would be funded by agriculture thru acreage fees assessed by the Regional Board. These numbers are concerning as the water quality monitoring performed is also a Public benefit. 41-3

- The Recommended Program will have a disproportional impact on smaller farming operations/landowners and some crop types. The *Economic Analysis* estimates it would cost a grower $5,000 to characterize surface and groundwater quality for low impact areas in addition to costs for water quality testing. 41-4

- There are many flaws and fundamentally wrong assumptions in the *Economic Analysis*. Monitoring costs are underestimated and changes in the underlying assumptions will result in substantial increases in the costs to agriculture. 41-5

- Groundwater quality in the Sacramento Valley is very good with few problems associated with agriculture. There are several state programs monitoring and protecting groundwater already. To duplicate these efforts is wasteful of our money. Coordination with existing programs with a sharing of their data is the prudent course to take. 41-6

- Point of Discharge - First encounter of groundwater is defined as groundwater that needs to be protected even though there are areas where first encountered groundwater is not and has never been usable water for drinking or agriculture use. 41-7

- The assumption the act of irrigating a crop is considered a discharge to groundwater that causes the degradation of groundwater is not provable or plausible in many areas of the State. Many areas throughout the State are irrigated and do not discharge to groundwater. 41-8

Additionally, we believe the below to be important in the current program and any future iteration:

Implementation Mechanism (Page 138) - *Recommendation: A series of area-, geographically based, or commodity-based implementation mechanisms with prioritized requirements. Implementation mechanisms could include waivers in low-priority areas* (emphasis added) *and general WDRs in high-priority areas. Individual WDRS could be developed and implemented as an enforcement tool.* 41-9

Lead Entity (Page 138) - *Recommendation: Third-party structure established in Alternative 1 and 2 (Coalition model) with additional structure and third-party transparency requirements.* The SVWQC already meets many of the transparency requirements. 41-10

Program Organization (Page 139) - *Recommendation: Establish geographically based tiering system to reduce costs to low threat areas.* 41-11

Water Quality Management Plans (Page 140) - *Recommendation: Regional water quality plans similar to those described in Alternatives 1 and 2 with additional requirements to (1) ensure the plans are designed to implement BPTC (best practicable treatment and control) to minimize degradation and address exceedances of water quality objectives, and (2) develop individual water quality management plans where regional plans have been ineffective* (emphasis added). 41-12

However, the ***Recommended Long-Term Irrigated Lands Regulatory Program (Recommended Program)*** paints in some cases an entirely different, confusing and/ or conflicting picture of compliance, leaving our members with the feeling that the regulatory proposal lacks flexibility we were led to believe, and will cost growers exponentially more. For example, Regional Board staff has recommended Tier 1 and Tier 2 areas, with Tier 1 being low threat areas. However, at the bottom of **Page 151** is the following: 41-13

"Examples of high-priority areas for surface water would be those under SQMPs (Surface Water Quality Management Plans) in the current ILRP (where irrigated agricultural operations are a source of the water quality concern). Area priority may be re-classified by the Central Valley Water Board based on review of new information collected during program implementation (see feedback loop in Figure 22)."

This leaves the impression that everyone starts in Tier 2 and with justification can move to Tier 1. In the SVWQC there are 54 management plans that are related to E. coli, Dissolved Oxygen and/or pH, all of which are found in the CGSP area. As part of the Management Plan approved in 2009, we are in the process of source identification, management practice surveys, and if agriculture is the source, establishing goals and a schedule implementation of additional management practices to address the exceedances. However with significant sources of DO

and pH from non-irrigated lands, the SVWQC members could implement management practices on every acre of irrigated ground in the Sacramento Valley and the exceedances of water quality objectives would continue, either as a result of natural causes, or flow, or both. Given the State Water Resources Control Board's recent adoption of a Delta Flow Report that threatens to dewater the farms and habitat of the Sacramento Valley and leave Shasta and Oroville Reservoirs at dead pool levels for longer periods of the year and more frequent years, the challenges of meeting these water quality objectives only increases.

41-13 cont'd

There needs to be clearer prioritization. Perhaps if AWEP/EQIP, Prop 84/50 or other sources of funding are in place or about to be granted to address the Management Plan issues, these areas would be viewed as having an "action plan" to improve water quality and categorized as Tier 1. The CGSP was the largest recipient of AWEP funding in the nation this year to address our Management Plan requirements. And, we have obligated in conjunction with the Natural Resources Conservation Service (NRCS) almost $1.2 million in 2010 for water quality and water conservation Best Management Practices (BMPs) within our area. This proves that irrigated landowners and wetland managers are serious about keeping water quality issues to a minimum and addressing them immediately if there is an issue.

41-14

The following comments augment comments submitted on behalf of the Sacramento Valley Water Quality Coalition, several agricultural organizations and other water quality coalitions, by Teresa Dunham, Esq., are organized by the specific document (PEIR, Staff Report, Economic Analysis, etc.) and include recommended changes where appropriate:

I. Draft Programmatic Environmental Impact Report (DPEIR)

General Comment: The DPEIR does not analyze the Recommended Program Alternative (Recommended Program). The PEIR analyzes five proposed alternatives. Staff has combined elements of many of these alternatives to develop a sixth alternative, which staff is now recommending for approval. As the recommended alternative, the staff-developed alternative has become the proposed project. However, the Draft PEIR does not analyze this project at all.

41-15

Section 5.6 Climate Change: The DPEIR provides a narrative of the greenhouse gas inventories and impacts related to operation of well pumps, but does not take into account any carbon sequestration as an offset to air quality or climate change impacts from crop production.

41-16

II. Staff Report and Recommended Program Alternative (Recommended Program)

Surface and groundwater quality is vital to success of irrigated agriculture. Sacramento Valley growers are active stewards of this vital resource, as the number of acres in management practices, active participation of the Resource Conservation Districts, Farm Bureaus, and Agricultural Commissioners in our area, and the water quality results indicate.

41-17

The Recommended Program Alternative (Recommended Program) for the Long Term Irrigated Lands Regulatory Program represents a significant expansion of the programmatic requirements on family farmers, placing increased cost burdens on Sacramento Valley agriculture that are disproportional to the water quality monitoring results we have recorded for the last five years and stewardship practices exhibited by our growers to protect water quality.

41-17 cont'd

A. All Areas Classified As Tier 2 (High Impact) – (Page 151) Despite assurances to the contrary our reading of sections like this in the Recommended Program

> "Examples of high-priority areas for surface water would be those under SQMPs in the current ILRP (where irrigated agricultural operations are a source of the water quality concern). Area priority may be re-classified by the Central Valley Water Board based on review of new information collected during program implementation (see feedback loop in Figure 22)."

led us to believe that irrigated agriculture would be classified as a Tier 2 (high threat) area if it is required to have a Management Plan under the current Irrigated Lands Regulatory Program. Surface Water Quality Management Plans are required when 2 or more exceedances occur in a specific watershed, within a three year period. Currently, the SVWQC has 54 Management Plan requirements related to DO and pH, and E. coli and seven related to pesticides.

41-18

In these instances irrigated agriculture could implement management practices on every acre and there would still be violations of DO and pH because of inputs from natural causes.

Figure 23. Long – Term ILRP Prioritization Scheme Example – (*Page 161)* This exposes the fact that very few if any areas will be Tier 1. In the portion of the diagram marked "Area A" it refers to exceedances without distinguishing if these are irrigated agricultural related exceedances, which trigger management plan requirements, as it does in the "Area B" diagram. It simply says "Surface Water Objectives exceeded" and "trending degradation of surface water attributable to ". Under this scenario an E. coli exceedance in surface water that has been determined to come from a wastewater treatment plant or non-irrigated agricultural sources would still fall under Tier 2.

Recommendations: There needs to be some better prioritization of constituents of concern.

It is requested that the language be eliminated that automatically places an area in Tier 2 if you have a Surface Water Quality Management Plans for E. coli, DO and pH in the Sacramento Valley. Additionally if AWEP/EQIP, Prop 84/50 funding is in place or about

to granted, an area would be viewed as having an "action plan" to address the water quality exceedance and be classified as Tier 1 (low impact).

Figure 23 needs to refer to exceedances that are associated with irrigated agriculture, not as it does now "surface water quality exceedances. . ."

41-18 cont'd

B. Prioritization of Surface Water Quality Issues and Groundwater Quality Issues (Pages 159- 160) The relationship between the prioritization of water quality issues and the *Priority Factors* (Pages 150-151) is unclear. Specifically if you have a management practice in place that is protective of water quality do you become a Tier 1 area?

Which water bodies are considered priority?— streams tributary to water bodies in the Basin Plan with aquatic life uses based on the "tributary rule", tributary streams with identified municipal or domestic drinking water intakes; water bodies

Comment: Again aquatic life beneficial use includes DO, pH, and temperature as constituents of concern. Irrigated agriculture's ability to address this issue is limited. Also the tributary rule may potentially expand the number of water bodies beyond what should be a priority. Legacy OC Pesticides are a constituent of concern for human consumption beneficial use. Since existing background levels of Legacy OC Pesticides exist in the sediment almost 40 years after it was banned, detections and exceedances of water quality objectives will exist without a contribution from irrigated agriculture.

Recommendation: Eliminate or lower the priority of DO, pH, temperature and Legacy OC Pesticides as criteria for establishing a waterbody as a priority.

41-19

C. Priority Groundwater Quality Issues (Page 160)

Comment: The Regional Board has developed two important policies protective of groundwater quality. The first is its "Groundwater Quality Protection Strategy: A Roadmap for the Central Valley Region" and secondly, the alternatives for the Long-Term Irrigated Lands Regulatory Program (ILRP). The SVWQC is very committed to protecting and improving groundwater quality. To be clear, most landowners who irrigate their lands use groundwater in some manner, including domestic uses, and therefore have a vested interest in either maintaining or improving the quality of groundwater in their area. With this in mind, the SVWQC believes the following approach will help the Regional Board more effectively utilize its authorities to protect groundwater while providing a sound approach for farmers, ranchers and wetlands managers to address groundwater quality.
As the Department of Water Resources (DWR) Bulletin 118 (2003 Update) states about the Sacramento Valley Hydrological Region:

41-20

"Groundwater quality in the Sacramento River Hydrologic Region is generally excellent. However, there are areas with local groundwater problems. Natural water quality impairments occur at the north end of the Sacramento Valley in the Redding subbasin, and along the margins of the valley and around the Sutter Buttes, where Cretaceousage marine sedimentary rocks containing brackish to saline water are near the surface. Water from the older underlying sediments mixes with the fresh water in the younger alluvial aquifer and degrades the quality.

Wells constructed in these areas typically have high TDS. Other local natural impairments are moderate levels of hydrogen sulfide in groundwater in the volcanic and geothermal areas in the western portion of the region. In the Sierra foothills, there is potential for encountering uranium and radon-bearing rock or sulfide mineral deposits containing heavy metals. Human-induced impairments are generally associated with individual septic system development in shallow unconfined portions of aquifers or in fractured hard rock areas where insufficient soil depths are available to properly leach effluent before it reaches the local groundwater supply.

From 1994 through 2000, 1,356 public supply water wells were sampled in 51 of the 88 basins and subbasins in the Sacramento River HR. Samples analyzed indicate that 1,282 wells, or 95 percent, met the state primary MCLs for drinking water. Seventy-four wells, or 5 percent, have constituents that exceed one or more MCL. Figure 34 shows the percentages of each contaminant group that exceeded MCLs in the 74 wells."

41-20 cont'd

Creedon, Comments on ILRP PEIR
September 22, 2010
Page 8

The following chart from DWR's Bulletin 118 illustrates the groundwater quality issues in the Sacramento Valley.

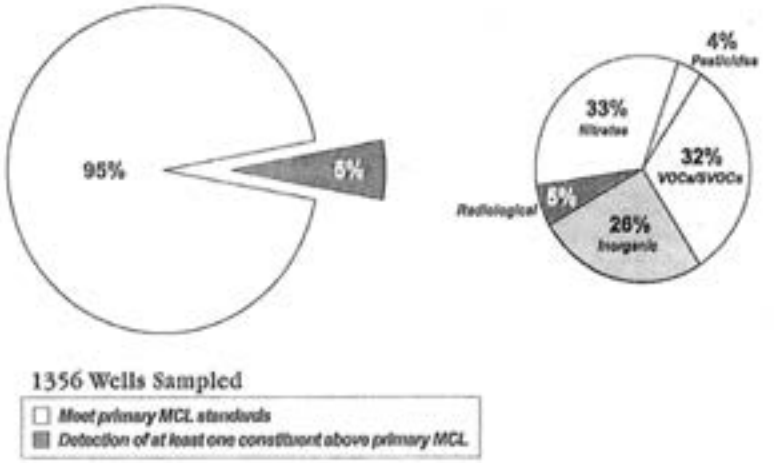

Figure 34 MCL exceedances in public supply wells in the Sacramento River Hydrologic Region

41-21

<u>Recommendations:</u> The Regional Board has important authorities to protect groundwater quality. The Central Valley is a vast region and a strategic approach to groundwater quality will be important for these various programs to be effective and to assure that both the Regional Board and the Coalitions are utilizing their resources effectively to protect groundwater quality. To help carry out this authority, we urge the Regional Board to pursue the following:

1. As a foundation to the ILRP, compile, analyze, and utilize existing groundwater data prior to proceeding with the adoption, regulation, and enforcement of groundwater monitoring programs within the ILRP.

   - Sources of existing data that should be fully utilized include: GAMA, Department of Pesticide Regulation, CV-SALTS, Department of Public Health, and Department of Toxic Substances Control data.
   - Once all sources of data are analyzed collectively, gaps in groundwater data will be identified. Such targeted identification will allow for proper determinations regarding necessary and appropriate actions to take to address groundwater monitoring.

41-20 cont'd

2. Provide a report to the Board that describes the groundwater data and helps prioritize the areas in the Central Valley that have groundwater quality issues. The report, to the extent possible, should demarcate agricultural-related from urban and natural issues.

3. Work with the SWRCB to extend a comprehensive monitoring program established in Water Code §10781 until 2024 as called for in Water Code §10782(a) (1).

41-20 cont'd

D. Compliance time schedule —*5 to 10 years.* For watershed areas with multiple water body/pollutant issues to address, schedule may be staggered between 5 and 10 years, but cannot exceed 10 years.

Comment: When constituents of concern originate in nature, every management practice Ag could do would not result in compliance. The Methylmercury TMDL has a longer compliance timeline.

Recommend: Eliminate compliance deadlines for DO, pH, temperature and Legacy OC Pesticides.

41-22

E. Appendix D - Surface and Ground Water Quality Management Plans

Comment: The submittal requirements in Appendix D appear to expand present requirements for management plans and add cost. Specifically ***Footnote 74***, "The intent of data verification is to provide confidence that the information being reported is accurate. This may include field visits to a subset of growers reporting their data or other methods to confirm data validity."

Recommendations:

1. A general caveat should be included in the language on each of the Elements 4-9, which states "If irrigated agriculture is identified as the predominant source . .." then, 4. identify practices to address constituents of concern, 5. evaluate management practice effectiveness, 6. describe outreach to growers, 7. track management practice implementation, 8. monitoring plan to track changes in water quality, and 9. Describe schedule and milestones. In some instances, despite best efforts to identify monitoring sites that are representative of irrigated agriculture, inputs from other non-point sources contribute to the exceedances.
2. Element 3 makes reference to ensuring that "all" growers are implementing practices to achieve BPTC for the parameter of concern. It might not be

41-23

necessary to have "all" growers implement practices to achieve WQOs. Recommend eliminating "all" and reference BPTC.

3. Element 5 refers to "field studies" as an acceptable approach. We want to ensure this is not "the preferred" approach but one of a menu of approaches.
4. Footnote 74 refers to "field visits" as a method of data verification to give the Regional Board "confidence the information being reported is accurate." Again, in the SVWQC region it may only take broader implementation of management practices to improve water quality. The Regional Board might be able to improve their confidence level by compiling information available about AWEP/EQIP, Prop 50 and 84 grant funding, etc., to get a broad sense of what of management practices being implemented. It wouldn't provide specific locations, but would broaden the publics' understanding that irrigated landowners are stewards of water quality.
5. Element 8 of the Groundwater Quality Management Plan requirements have cost implications. To track changes in water quality – which in groundwater's case may be decades before changes are realized—"The monitoring plan may need to include other sites or a different depth to groundwater (e.g. monitoring first encountered groundwater versus supply wells (emphasis added) or the frequency of sample collection. . ." Maintain regional monitoring unless there is a significant change in agricultural practices.
6. Lastly, Element 9, goals and schedules need to be reasonable. Management practices are slowly adopted and in some cases highly dependent on funding.

41-23 cont'd

F. <u>Three distinctly different timelines for developing a Groundwater Quality Management Plan</u>

<u>Page 152 2nd Paragraph under Tier 1</u> - Tier 1 it appears you have 5 years to "describe the area's existing water quality management objectives in a report to the Central Valley Water Board. Management Practices tracking, every 5 years would be the method by which the Central Valley Water Board would evaluate, in general, whether operations are continuing to meeting existing management objectives."

Low priority areas (Tier 1) described using factors on Page 150-151.

<u>Page 154 *High Priority Groundwater*</u> This section of the Recommended Program states there would be 18 months from adoption of WDR, which is 12 months after Water Board certifies Final PEIR. It is unclear, if and how the three (3) year phase-in (Page 143) would impact this timeline. See Footnote 59 which further confuses what the timeline is for submitting GWQ Management Plans where AB 3030 and SB 1938 programs exist.

41-24

Page 157 3rd Paragraph- Priority Undetermined - in the 3rd paragraph it states, "Areas with insufficient information to determine prioritization would be required to complete assessment monitoring or studies with 5 years of long term program adoption."

41-24 cont'd

G. **Public involvement in the Tiering decision of an area makes the process potentially political versus technical.**

Page 151, last paragraph

"Third-party groups and the Central Valley Water Board would identify low and high-priority areas in the development of watershed/area/commodity–specific implementation mechanisms during the 3-year transition period. The Central Valley Water Board intends to use existing information in this prioritization. However, there will be the flexibility for third-party groups and other interested parties to provide additional information during the process."

41-25

See *Footnote 57* "During this process, there would be opportunity for public input.

H. **Tier 1 Regulatory Requirements are contradictory**

Comment: On *Page 152* Tier 1 requirements are described similar to the Pilot Management Practices in the SVWQC *Monitoring and Reporting Program Order R5-2009-0875*

Under this tier, the Central Valley Water Board considers the existing level of management objectives as BPTC, and protective of surface and groundwater quality. Third-party groups are required to describe the area's existing water quality management objectives in a report to the Central Valley Water Board. Management practices tracking, every 5 years, would be the method by which the Central Valley Water Board would evaluate, in general, whether operations are continuing to meet existing management objectives.

41-26

On *Page 157* under Monitoring it states

Surface Water
Monitoring would consist of tracking of management practices and watershed based assessment monitoring 1 year every 5 years (similar to the assessment monitoring required under the current ILRP). Monitoring and tracking results would be submitted in a report every 5 years to the Central Valley Water Board. Additional monitoring may be required where assessment monitoring identifies a water quality concern.

Recommendation: Do not require assessment monitoring every 5 years unless there is significant increase or change in the agricultural practices. In subwatersheds with little acreage or few members monitoring, even every 5 years is expensive. 41-26 cont'd

I. **Other interested parties** (*Page 154, Paragraph 2 and 3*) –

Comment: Language here appears to open the door for negotiations on SQMP and GQMP to other parties – undefined. The SVWQC Management Plan (February 2009) and Monitoring and Reporting Program Order (December 2009) were approved by the Executive Officer and didn't require Regional Board action or multi-party negotiations. This language also appears on Page 155, Paragraphs 1 and 2. 41-27

Recommendation: Delete reference to "other interested parties"

J. **Compliance Timelines of 5-10 years are problematic** - especially for groundwater quality and especially when constituents are legacy pesticides or the source of the constituent of concern is from non-irrigated agricultural sources. 41-28

K. **Ultimate Goal - Individual Farm Water Quality Management Plans** (*Page 155, Paragraph 3*) The Recommended Program states, the failure to meet water quality objectives will require Individual Farm Water Quality Management Plans (FWQMP). As defined in Alternative 3 and summarized on Page 1-2 of the ***Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (Economic Analysis)*** FWQMP would be required "regardless of whether water quality problems have been identified". 41-29

L. **Fees** (*Page 160*) – "Fees charged will be dependent on the amount of State funding allocated through legislative appropriation and the State Water Board's analysis of the level of staff effort required to implement the program. The Central Valley Water Board will recommend that the fee structure reflect the differing levels of effort for the different tiers and oversight of irrigated agricultural operations as individuals versus as part of a third-party group." 41-30

Not sure how this works, but can understand how growers are tying the SWRCB action on the Ag Waiver Fee increase in the Governor's budget with the CVRWQCB Recommended Alternative.

M. **Point of Discharge** - First encounter of ground water is defined as groundwater that needs to be protected even though there are areas where first encountered ground water is not and has never been usable water for drinking or agriculture use. 41-31

The assumption that the act of irrigating a crop is considered a discharger to groundwater that causes the degradation of groundwater is not provable or plausible in

many areas of the State. Many areas throughout the state are irrigated and do not discharge to groundwater.

Recommendation: Eliminate this as point of compliance. Use existing water quality data to determine if discharge is impacting surface or groundwater quality.

41-31 cont'd

III. Economic Analysis

As the *Economic Analysis* states on Page 1-3, ". . . a change in the underlying assumptions . . . could substantially alter the study results." There are numerous instances in the document where it is incorrect or based on faulty assumptions. As just one example, information provided on "Enrolled and Total Acres. . ." Table 2-3 on Page 2-4 and Table 2-4, "Enrolled and Total Growers", which are used to determine fees in Alternatives 1-5, bear no relation to reality. For instance, Table 2-3 shows enrolled acreage of 173,438 in Butte Yuba Sutter watershed. It does not appear all acreage or crops are included in this figure, since the SVWQC reported 220,000 and 206,000 enrolled acres in 2009 and 2010. In some cases there are more enrolled growers in a watershed than estimated growers (Upper Feather Upper Yuba, Delta Mendota).

41-32

Tables 2-3 and 2-4 are just two examples of where is it difficult to determine how the results in the Economic Analysis were arrived at, leaving us to ask the question teachers for years have preached: "Show your work."

Comment: The Recommended Program Alternative has not been analyzed as part of the economic analysis.

41-33

Recommendation: An independent review of the Economic Analysis should be conducted.

Comment: The Central Valley Production Model (CVPM) not appropriate for Foothill areas The model is applied to too large an area.

41-34

Chapter 1 - Analytical Objectives and Approach

1.2 Key Study Assumptions (Page 1-3, Paragraphs 2 and 3)

"As discussed further in Chapter 3, the model assumes that growers will react to increased costs and other compliance requirements by adjusting crop production as needed to maximize net income and stay in business. Results from the Central Valley were extrapolated to affected areas in the foothills and upper watersheds.

41-35

"It is likely; however, that growers will find or develop less expensive ways to modify their production practices, and therefore direct impacts on their revenues and production would be less than those estimated in Chapter 3."

41-35 cont'd

Comment: This seems to be a generalized statement that doesn't take into account Associated start up costs (seed, field preparation) in order to modify. Orchards for instance would not have the flexibility presumed here.

Forward linked effects understated "Because Regional economic analysis results presented in Chapter 4 do not include forward linked effects, total regional impacts are understated."

41-36

Comment: Regional Board should provide estimate of understated impacts, as this makes validity of results otherwise suspect.

Page 1-4, Paragraph 2

"Results of the farm income analysis in Chapter 3 indicated that other crops would not be as affected as those linked to the livestock sector, so the forward-linked effects would also be smaller. Nevertheless, the exclusion of these additional forward-linked effects understates the total regional economic impacts of the Program alternatives".

41-37

Comment: We disagree that forward-linked effects of other crops would be smaller. Wine grapes for example have significant forward-linked effects. As the text points out forward-linked effects are understated. Several examples of forward-linked effects that could be included are agrotourism, food processing (e.g. tomato processing), and retail sales of wine from local vineyards.

Chapter 2 - Compliance and Management Practice Costs

2.2.1.3 Acreage and Grower Data (Page 2-3)

"The Central Valley Water Board provided information on the number of enrolled growers by watershed (Table 2-4). Enrolled growers are those currently enrolled in the Board's program and are derived from the management plan acreage. Estimated growers are based on the total acreage in the ECR watersheds. Enrolled growers were used to determine fees in Alternative 1. The estimated growers were used to estimate fees for Alternatives 2–5."

41-38

Comment: As mentioned previously this information is significantly flawed and the Regional Board should correct the information and recalculate impacts.

Creedon, Comments on ILRP PEIR
September 22, 2010
Page 15

2.3.1 When and Where Water Quality Management Practices Are Applied (Page 2-6)

"Water quality management practices are applied when there are documented COCs (Figure 2-1, Table 2-5). The practices applied for pesticides were based on the constituent's use by crop type (Footprint 2010; PAN 2010)."

41-39

Comment: The Regional Board should use objective sources of information. The use of the Pesticide Action Network (PAN) as source is inappropriate when objective sources exist.

2.3.2 Water Quality Management Practice Cost Calculations (Page 2-14)

"In the watersheds without COCs the only practices considered are nutrient management and water management, but only if there are acres that are vulnerable to leaching."

41-40

Comment: Why is nutrient management practices considered in areas without constituents of concern? These are costs to growers and producers that bear no relationship to need.

2.4.1.1 Monitoring Costs (Page 2-17)

"The alternatives have two types of sampling: basic, which covers nitrate and electrical conductivity, and comprehensive, which covers other constituents such as organic compounds and native elements such as boron or selenium. Sampling location and frequency depend on the alternative."

41-41

Comment: Are these sampling types reflective of the Monitoring and Reporting Program Order requirements on Coalitions? If not, this understates costs.

Table 2-10. Surface and Groundwater Monitoring Cost Breakdown for Use in All Alternatives

41-42

Comment: The frequency of sampling in this table significantly understates costs. In much of the Sacramento Valley Water Quality Coalition area, we sample 8-12 times a year for field parameters and constituents of concern.

Table 2-11. Estimated Cost per Acre for Current Program (Page 2-20)

DRAFT Estimated Current Annual Cost for Compliance Actions Average $/acre
State Board Ag Waiver Fees $0.15

41-43

Comment: The current fee is $0.12/acre

"Surface water or groundwater characterization is necessary to meet the Tier 1 requirements under Alternative 4. Using the Natural Resource Conservation Service (NRCS) time estimates (NRCS 2010), it was assumed that each review would result in a one-time cost of $2,500 (Table 2-13) for evaluation plus testing for water quality. These costs are applied on a per-grower basis. Therefore, a grower who needed to conduct a site-specific evaluation of both surface water and groundwater would be required to spend $5,000 in addition to costs for water quality testing."

41-44

Comment: This example of how the Recommended Program Alternative could have a disproportional impact on small farming operations and low value crops. These costs are per grower regardless of size of property. Why would additional testing be required if a grower has an approved farm water quality management plan?

2.5 Water Quality Management Practices and Other Compliance Costs, by Alternative

Tables 2-19 thru 2-22 under report actual costs

41-45

Comment: The Regional Board estimates in the PEIR that their costs to administer the program will range from approximately $4,000,000 to $66,000,000 depending on the alternative selected. Upwards of 97% of these costs would be funded by agriculture thru acreage fees assessed by the Regional Board. But these costs are footnotes to the tables and not factored into Total Compliance Costs.

Comment: In Tables 2-18 thru 2-22 are costs annual or one time? Our estimate is the cost of compliance is $13,000 per landowner, but not sure if that is a one time or annual cost.

Table 2-19. Costs by Hydrologic Basin for Alternative 2 – Third-Party Lead Entity (Page 2-25)

41-46

Comment: Growers fees increase to $548,227, what is this based on? How was Groundwater Reporting to Third Party of $1,080,996 determined?

Table 2-20. Costs by Hydrologic Basin for Alternative 3 – Individual Farm Water Quality Management Plans (Page 2-25)

41-47

Comment: Why is there $11,874,774 Monitoring Cost for this Alternative?

Again, we thank you in providing us with this opportunity. However, we strongly encourage you to take these comments, questions, and suggestions into consideration. Agriculture is a major factor in California's economy, in our nation's security, the economic lifeblood of many

communities in the Central Valley, as well as many other important facets of our communities. Please contact our office at (530) 934-8036 if you have any questions.

Sincerely,

Larry Domenighini
President

cc CGSP Board of Directors
SVWQC

3.2.4.1 Responses to Letter 41

Note: Letter 119 is a duplicate of Letter 41.

41-1

The support for implementation of an ILRP alternative that strongly protects drinking water will be considered in development of the Long-term ILRP.

41-2

See Comment Letter 14, Response 1 and Comment Letter 40, Response 2.

41-3

See Master Response 17.

41-4

See Master Response 17.

41-5

See Master Response 17.

41-6

See Comment Letter 41, Response 6 and Comment Letter 1, Response 45.

41-7

See Master Response 18.

41-8

See Comment Letter 1, Response 4.

41-9

In situations where an individual operation is not (1) compliant with ILRP requirements or (2) responsive to a third-party group, individual WDRs could be developed to facilitate compliance and enforcement. The concept of developing individual WDRs to facilitate enforcement and development of orders, as described in Alternative 6, will be considered in the development of the Long-term ILRP.

41-10

The proposed coalition or third-party transparency requirements are intended to ensure that irrigated agricultural operations are (1) fully aware of program requirements and (2) compliant with program requirements. Transparency requirements are also intended to ensure that third-parties provide information to the Central Valley Water Board regarding any non-compliant operations. In evaluating whether the Central Valley Water Board should implement these or similar

transparency requirements, it is helpful to know that there are coalitions (i.e., Sacramento Valley Water Quality Coalition [SVWQC]) that are already meeting similar standards for transparency.

41-11

The Central Valley Water Board recognizes the comment's support for the tiering system and will consider this in development of the Long-term ILRP.

41-12

The support for regional water quality management plans will be considered in the development of the Long-term ILRP.

41-13

See Comment Letter 97, Response 6 and Comment Letter 111, Response 21.

41-14

The priority systems described in Alternatives 2, 4, and 6 are intended to help reduce ILRP costs for areas/operations that do not have water quality problems. In general, the priority systems allow areas that have no water quality concerns to be considered low priority. Also, the priority systems allow consideration of existing management practices. For example, under Alternative 2, areas implementing approved watershed or area management objectives plans would be eligible for reduced monitoring. In the example presented in the comment, the consideration of whether funding was in place for implementation of practices would be a first step in the process of developing and implementing a watershed or area management objectives plan. In order to qualify for reduced monitoring, management plans must be developed, approved, and under implementation. Generally, these conditions are also required under the priority systems of Alternatives 4 (priority system is based on fertilizer and pesticide use) and 6 (priority factors include the consideration of management practices in place).

41-15

See Master Responses 3 and 4.

41-16

See Master Response 15.

41-17

See Comment Letter 41, Response 2.

41-18

See Comment Letter 97, Response 6, Comment Letter 111, Response 21; Comment Letter 1, Response 23; and Comment Letter 41, Response 14.

41-19

See Comment Letter 10, Response 3; Comment Letter 111, Response 21; and Comment Letter 9, Response 4.

41-20

See Comment Letter 50, Response 14 and Comment Letter 45, Response 20.

41-21

No response needed.

41-22

See Master Response 13.

41-23

The Central Valley Water Board agrees that the data verification requirement in Appendix D may impose costs, with the actual amount dependent upon the method used to verify the information. See Comment Letter 50, Response 8 regarding programmatic cost estimations.

The following response elements correspond to the numbering in the comment letter.

1. This requirement is not consistent with the goals and objectives of the Long-term ILRP to *"minimize waste discharge from irrigated agricultural lands that could degrade the quality of State waters."* Where agriculture is a contributing source of a water quality concern, then the ILRP's goals and objectives would require action be taken to minimize their contribution. Just as other sources would be required to minimize contributions (dairies, wastewater treatment plants, etc.). However, where agriculture is not a contributing source, then additional practices should not be required. Clarifying language to address this comment will be considered in development of the Long-term ILRP.

2. It is correct that all operations would not need to implement BPTC; only those that could cause degradation of a high quality water. See Comment Letter 1, Response 32. It is expected that operations would implement practices necessary to solve the water quality concern, and/or work to minimize any degradation of a high quality water.

3. Field studies are described as one acceptable approach for evaluating the effectiveness of management practices. This element does not describe a preferred approach.

4. The monitoring required under Alternatives 2–6 includes tracking management practice implementation. Alternative 6 would also require that the third-party group develop a system to verify information reported by operators (such as field visits). The Board is supportive of the outside funding to assist in management practice tracking, but compliance actions would be required even if outside funding is not available.

5. As the comment describes, there may be costs associated with this type of monitoring (e.g., first encountered groundwater monitoring), especially where there are not existing wells in place. See Comment Letter 50, Response 8. Regional monitoring results would be acceptable where the

monitoring can provide information on whether the practices being implemented are working to address the water quality concern.

6. The Central Valley Water Board intends to work with funding entities to support agriculture's efforts to improve water quality. However, availability of outside funding will not be a primary factor in considering the reasonableness of schedules and milestones. See Comment Letter 111, Response 34.

41-24

There are differing timelines proposed in the Draft PEIR, Appendix A for Alterative 6; timelines are specific to the two tiers, as well as areas not yet classified in a tier. However, the Tier 1 timeline mentioned by the comment (Draft PEIR, Appendix A page 152) is not a groundwater management plan timeline; Tier 1 requirements do not include management plans. The 5-year proposed timeline is for assessment monitoring (where insufficient information is available for prioritization) and for submitting reports on monitoring and practices.

The 18-month time frame for third-party development of groundwater quality management plans would be in place upon adoption of ILRP implementation mechanisms. Because the Central Valley Water Board intends to develop implementation mechanisms within 12 months of EIR certification, the timeline to develop groundwater quality management plans would occur within the 3-year implementation timeframe for Alternative 6.

41-25

See Comment Letter 1, Response 48. The same rationale applies to public involvement in identifying which areas fall under the different tiers.

41-26

See Comment Letter 126, Response 3.

41-27

See Comment Letter 1, Response 48.

41-28

See Master Response 13 and Comment Letter 111, Response 34.

41-29

Alternatives 3, 4, and 5 would have individual FWQMP requirements for all operations. Alternatives 1, 2, and 6 would have regional water quality management plans required in areas with water quality concerns.

Alternative 6 would require individual FWQMPs only (Draft PEIR, Appendix A page 155) *"if objectives are not met, improvements in water quality do not occur within the approved time schedule for implementation, or where irrigated agricultural operations are not implementing requirements in SQMPs/GQMPs [regional plans]."* Essentially, where regional plan objectives are not met, effective, or being implemented, individual plans would be required.

Also see Master Response 13 and Comment Letter 111, Response 34.

41-30

See Comment Letter 97, Response 25.

41-31

See Master Response 12, 18 and Comment Letter 9, Response 14.

41-32

See Master Response 17.

41-33

See Master Response 17.

41-34

See Master Response 17.

41-35

See Master Responses 7 and 17. Also see Comment Letter 99, Responses 54 and 55.

41-36

See Master Response 17.

41-37

See Master Response 17.

41-38

See Master Response 17.

41-39

See Master Response 17.

41-40

See Master Responses 12 and 17.

41-41

See Master Response 17.

41-42

See Comment Letter 50, Response 8.

41-43

See Comment Letter 97, Response 38 and Master Response 17.

41-44

This comment will be considered in development of the Long-term ILRP.

41-45

See Master Response 17.

41-46

See Master Response 17.

41-47

See Master Response 17.

3.2.5 Letter 37—County of El Dorado Board of Supervisors, Norma Santiago, Chair

Comment Letter IL37

COUNTY OF EL DORADO
330 Fair Lane
Placerville, CA 95667
(530) 621-5390
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SUZANNE ALLEN DE SANCHEZ
Clerk of the Board

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September 21, 2010

ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

RE: Comments on the Draft Program Environmental Impact Report for a Waste Discharge Program for Irrigated Lands within the Central Valley Region

Dear Ms. Smith:

Per the Notice of Availability regarding the opportunity to provide comments on the Draft Program Environment Impact Report (PEIR) for a Waste Discharge Regulatory Program for irrigated lands within the Central Valley Region the following comments are being submitted for review and consideration. The draft PEIR analyzes the environmental impacts of five program alternatives plus a proposed staff recommendation for a long term plan to best meet the applicable statutory requirements and the goals and objectives of the Irrigated Land Regulatory Program (ILRP). Each alternative has their individual merits, but the alternatives are not flexible enough for the non water basin areas of the central valley such as El Dorado County.

Based on the Department of Water Resources Bulletin 118 California Groundwater Basins and Sub-basins Map El Dorado County west of the Sierra Nevada crest does not contain a groundwater basin or sub-basin. Therefore, it would seem appropriate that this area is covered under Water Code Division 6, Chapter 1, Part 2.11, Section 10921 which precludes El Dorado County from conducting groundwater monitoring and irrigated landowners will continue to use established management practices. 37-1

A large portion of the County of El Dorado is located on the Western Sierra Nevada Mountains where irrigated lands are limited to 10 or 20 acre parcels with generally poor to rocky soil conditions. Groundwater in these areas generally is deep, over 200 feet, with low productivity and used for domestic and/or small farming activities. In Table 5.9 of the PEIR the County of El Dorado is not recognized as having any pesticides detected in wells from 1985-2003.

In lieu of a single alternative for regulating waste discharges from irrigated agricultural lands, we respectfully suggest a tiered approach similar to other State Water Board Regulations with the least regulated tier applying to those agriculture lands that are not in a recognized water basin or sub-basin. In conjunction with this tiered methodology an approved management practice program would be required and existing groundwater data will be reviewed and assessed to determine whether the objectives of the regulatory programs are being achieved.

Based on the information provided, it appears that the County of El Dorado County irrigated lands should not be required to conduct groundwater monitoring and placed in a least regulated tier as identified above. It is the intent of the County to work with the El Dorado County Agricultural Water Quality Management Corporation and the El Dorado County Water Agency in the development of a compliance work plan. We support the El Dorado County Agricultural Water Quality Management Corporation irrigated land coalition in their action to comply with the Pilot Watershed Management Practices Plan and support their desire to achieve a reasonable and logical management practices plan for the irrigated lands of the County of El Dorado. 37-2

Thank you for your time and consideration of the County of El Dorado's position regarding the Draft Program Environmental Impact Report for a Waste Discharge Program for Irrigated Lands within the Central Valley Region.

Sincerely,

Norma Santiago

Norma Santiago, Chair
County of El Dorado Board of Supervisors

Cc: El Dorado County Water Agency
El Dorado County Agricultural Water Quality Management Corporation

3.2.5.1 Responses to Letter 37

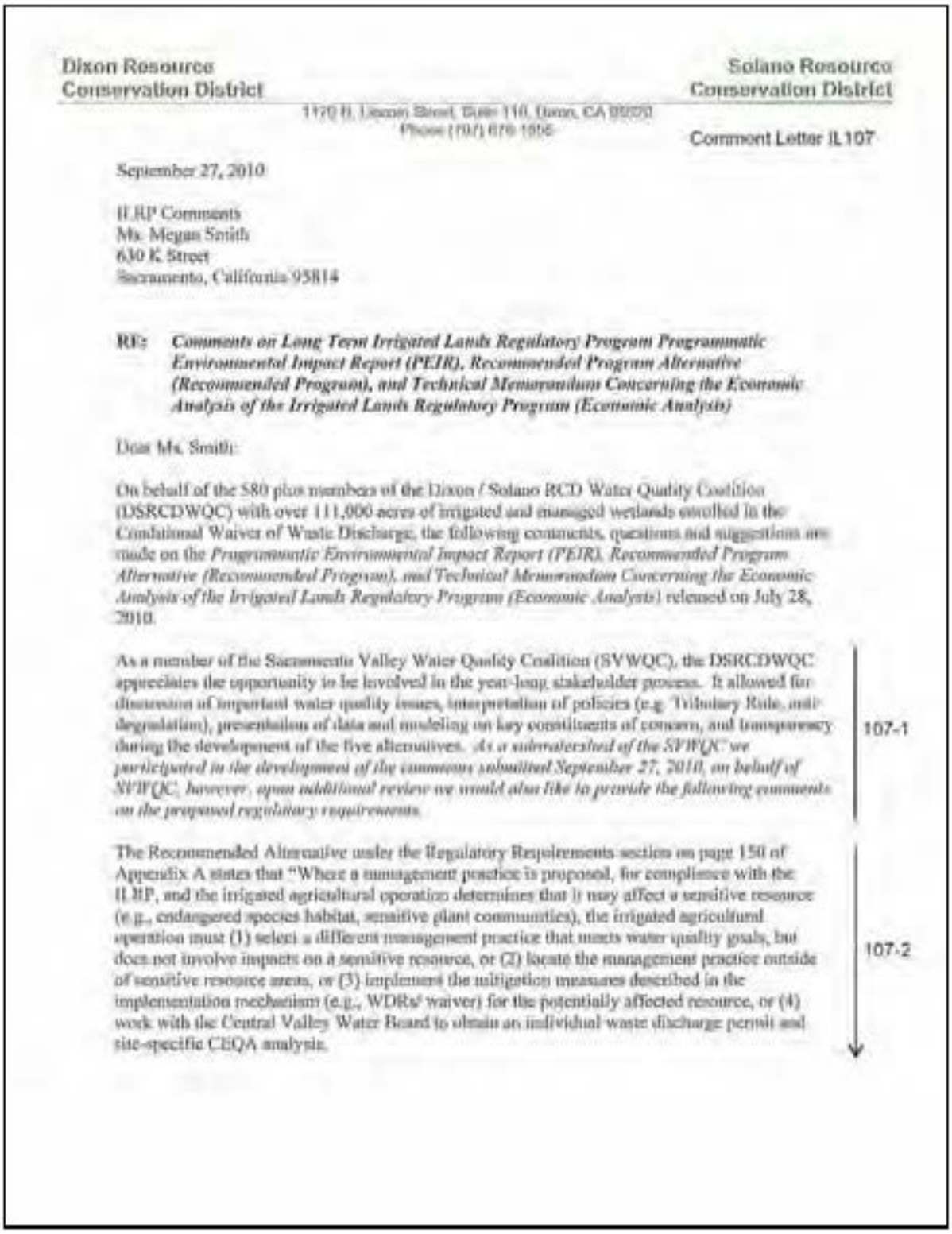
37-1

See Comment Letter 100, Response 41 and Comment Letter 5, Response 1.

37-2

This suggestion will be considered in development of the Long-term ILRP.

3.2.6 Letter 107—Dixon / Solano Resource Conservation District, John S. Currey, District Manager



Dixon Resource Conservation District

Solano Resource Conservation District

1170 N. Lincoln Street, Suite 110, Dixon, CA 95620
Phone (707) 678-1655

Comment Letter IL107

September 27, 2010

ILRP Comments
Ms. Megan Smith
630 K Street
Sacramento, California 95814

RE: ***Comments on Long Term Irrigated Lands Regulatory Program Programmatic Environmental Impact Report (PEIR), Recommended Program Alternative (Recommended Program), and Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (Economic Analysis)***

Dear Ms. Smith:

On behalf of the 580 plus members of the Dixon / Solano RCD Water Quality Coalition (DSRCDWQC) with over 111,000 acres of irrigated and managed wetlands enrolled in the Conditional Waiver of Waste Discharge, the following comments, questions and suggestions are made on the *Programmatic Environmental Impact Report (PEIR), Recommended Program Alternative (Recommended Program), and Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (Economic Analysis)* released on July 28, 2010.

As a member of the Sacramento Valley Water Quality Coalition (SVWQC), the DSRCDWQC appreciates the opportunity to be involved in the year-long stakeholder process. It allowed for discussion of important water quality issues, interpretation of policies (e.g. Tributary Rule, anti-degradation), presentation of data and modeling on key constituents of concern, and transparency during the development of the five alternatives. *As a subwatershed of the SVWQC we participated in the development of the comments submitted September 27, 2010, on behalf of SVWQC, however, upon additional review we would also like to provide the following comments on the proposed regulatory requirements.* 107-1

The Recommended Alternative under the Regulatory Requirements section on page 150 of Appendix A states that "Where a management practice is proposed, for compliance with the ILRP, and the irrigated agricultural operation determines that it may affect a sensitive resource (e.g., endangered species habitat, sensitive plant communities), the irrigated agricultural operation must (1) select a different management practice that meets water quality goals, but does not involve impacts on a sensitive resource, or (2) locate the management practice outside of sensitive resource areas, or (3) implement the mitigation measures described in the implementation mechanism (e.g., WDRs/ waiver) for the potentially affected resource, or (4) work with the Central Valley Water Board to obtain an individual waste discharge permit and site-specific CEQA analysis. 107-2

Comment:

We are concerned that this regulatory requirement establishes an expectation that the individual landowner decisions when installing best management practice would be documented and reported to the Regional Board. If the installation of the best management practice is not documented it will be impossible to prove that avoidance was implemented. As a result, this requirement would at a minimum require landowners and/or third party leads initiate a substantial and burdensome requirement to produce and maintain these records or defend themselves against a claim that the management practice required CEQA review. 107-2 cont'd

The Description of options under the Water Quality Management Plans section on page 139 of Appendix A provides the example of "...where a water quality problem is attributable to multiple sources, an overarching regional plan could be developed to address the concern." In addition, the Recommendation under the Monitoring Section on page 141 of Appendix A states "...that the inability of regional monitoring to determine irrigated agricultural waste contributions to identified water quality problems will not excuse action to work toward minimizing contributions to identified water quality problems." 107-3

Comment:

Who is the responsible entity for organizing an overarching regional plan and/or determining the extent of contribution from non-agricultural sources to a water quality problem? The costs and responsibility for multiple source water quality issues should be distributed accordingly and not unfairly burden agriculture.

Again, we thank you in providing us with this opportunity. However, we strongly encourage you to take this comment and SVWQC comments, questions, and suggestions into consideration. Agriculture is a major factor in California's economy, in our nation's security, the economic lifeblood of many communities in the Central Valley, as well as many other important facets of our communities. Please contact our office at (707) 678-1655 if you have any questions.

Sincerely,

John S. Currey

John S. Currey
District Manager

cc Dixon RCD Board of Directors
Solano RCD Board of Directors
SVWQC

3.2.6.1 Responses to Letter 107

107-1

See Comment Letter 41, Response 1.

107-2

Alternatives 2–6 require tracking of management practices implemented to comply with the ILRP. In order to enroll in the ILRP, operations would be required to certify that practices implemented do not involve impacts on a sensitive resource unless mitigation measures are implemented. Operations implementing practices that impact sensitive resources would be required to report on implementation of mitigation measures.

Operations choosing to implement management practices for compliance with the ILRP that would impact a sensitive resource but do not implement mitigation measures would not be eligible for enrollment in the ILRP. These operations would be required to work individually with the Central Valley Water Board to obtain regulatory coverage for their waste discharge.

See Master Response 6.

107-3

The purpose of the ILRP is to regulate irrigated agricultural waste discharges to surface or groundwater. However, the ILRP does not require that the amount of each participating contribution to a water quality problem be determined. If a water quality problem (e.g., degradation occurring, or not meeting objectives) exists, operations that potentially contribute to the problem are required to minimize their waste discharge. If the selected ILRP alternative's monitoring program is regional in nature (i.e., individual field effects on receiving waters are not monitored), it is not possible to determine whether and how much each operation is contributing to the problem—water quality assessment and feedback mechanisms are based on the watershed-scale for multiple sources. Therefore, the ILRP requires that operations that *potentially* contribute sources to the problem implement management practices designed to minimize their contribution. Often times the cost of conducting a source control study may be greater than the cost of implementing measures to minimize waste contributions. Local third-party groups would need to weight this consideration in determining whether to focus on source control or studies in program implementation. However, where agriculture is not a source, the ILRP would not require implementation of practices. Also see Comment Letter 100, Response 40. The overarching regional plan described is an optional plan that could be developed and funded by participating entities within a watershed or area.

Agricultural operations that do not wish to participate in implementing practices under the ILRP have the option to file a report of waste discharge and obtain individual waste discharge requirements. These requirements would specify individual monitoring of effluent and/or receiving waters designed to ensure that the operations waste discharge does not cause or contribute to an exceedance of water quality objectives and that BPTC is implemented where there is degradation of a high quality water.

3.2.7 Letter 48—El Dorado County Water Agency, James R. "Jack" Sweeney, Chairman, Board of Directors

Comment Letter IL48

El Dorado County Water Agency

Ron Briggs, Board of Supervisors | John P. Fraser, El Dorado Irrigation District | James R. Jones, South Tahoe P.U.D. | Norma Santiago, Board of Supervisors | James R. "Jack" Sweeney, Board of Supervisors

September 24, 2010

Central Valley Regional Water Quality Control Board
Irrigated Lands regulatory Program
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Subject: Comments on the Irrigated Lands Regulatory Program- Program Environmental Impact Report

Dear Ms. Smith:

The El Dorado County Water Agency has reviewed the Program Environmental Impact Report (PIER) for the Irrigated Lands Regulatory Program (ILRP). The proposed ILRP will involve the adoption of one or more general Waste Discharge Requirements (WDRs), Conditional Waivers of WDRs, and Prohibitions of Discharge to regulate the discharge of waste to ground waters of the State from irrigated agricultural operations, managed wetlands and nursery operations. The stated objectives of the ILRP are to: 1) restore and/or maintain the highest reasonable quality of state waters considering all the demands being placed on the water; (2) minimize waste discharge from irrigated agricultural lands that could degrade the quality of state waters; (3) maintain the economic viability of agriculture in California's Central Valley; and (4) ensure that irrigated agricultural discharges do not impair access by Central Valley communities and residents to safe and reliable drinking water.

The El Dorado County Water Agency is a County-wide planning agency with responsibility for ensuring adequate water supplies for the residents of El Dorado County, including surface and ground water quality. As such, EDCWA offers the following comments. It is important first, to preface the comments with a summary of the character of agriculture, existing water quality and ground water geology in El Dorado County.

Agriculture in El Dorado County

Irrigated agricultural operations in El Dorado County are typically patchwork, low intensity, small family owned and operated farms with an average parcels sizes of 38 acres that include an irrigated agricultural production area of 10 acres. Agricultural operations are limited to small geographic area in the County, due to elevation, poor soils, topography and limited water availability. While high volume sprinklers are used, primarily for frost protection, a majority of irrigation is done with more efficient micro-sprinklers or drip systems. The primary commercial

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commodities are permanent crops consisting of fruit and nut orchard, wine grapes, Christmas trees, berries with a few vegetables and a small amount of irrigated pasture.

Water Quality

Local water districts, Sacramento Municipal Utility District and Low Threat Waiver surface water quality testing done in the South Fork American and Cosumnes River watersheds, show excellent water quality with no evidence of any adverse effects resulting from agricultural operations within the County.

As a result of low intensity farming, irrigation practices and excellent water quality, El Dorado County watersheds, through the El Dorado County Agricultural Water Quality Management Corporation, have been approved for a management practices-based Pilot Program that eliminates surface water monitoring for two years.

Groundwater Geology

Based on the Department of Water Resources Bulletin 118, California Groundwater Basins and Sub-basins Map, El Dorado County west of the Sierra Nevada crest does not contain a groundwater basin or subbasin. Water Code Division 6, Chapter 1, Part 2.11, Section 10921 also recognizes the absence of significant ground water on the western slope, by exempting areas not designated as having a groundwater basins or sub-basin from investigative monitoring of groundwater elevations.

A large portion of El Dorado County and virtually all irrigated lands within the County are located on the western slope of the Sierra Nevada. Unlike the Central Valley, groundwater in these areas is found in fractured hard rock, generally to depths over 200 feet. Fractures may be large or small and may run up and down or sideways. They may be a few millimeters to hundreds of meters long, but most are less than a millimeter wide (DWR Water Facts, Number 1). The varied orientation and interconnectivity, or lack thereof, of these fractures make it virtually impossible to identify the source or the destination of the water. Wells in the hard rock of El Dorado County are generally low producing and are used for individual residences and/or small farming activities. In Table 5.9 of the PEIR, the County of El Dorado is not recognized as having any pesticides detected in wells from 1985-2003, indicating that agricultural operations are not likely to be affecting the deep domestic wells typical of the western slope.

Groundwater sufficient to supply public water systems is unavailable, and the few groundwater supplies that have been used for municipal purposes, on the western slope, have been abandoned. Public water agencies on the western slope therefore, deliver only surface water to their customers.

Comments

The draft PEIR analyzes the environmental impacts of five program alternatives and a proposed staff recommendation for a long term plan to best meet the applicable statutory requirements and the goals and objectives of the Irrigated Land Regulatory Program (ILRP). Each alternative has its individual merits, but the alternatives are not flexible enough for the non-water basin areas of the Central Valley, such as El Dorado County, where the objectives of the ILRP are already being met. Water quality is excellent in El Dorado County and there is no evidence that

48-1

agricultural operations are contributing to surface or groundwater degradation. Irrigation practices, low intensity farming and mixed land uses minimize discharges that could degrade water quality. There is no evidence of impairment of drinking water supplies. For these reasons the EDCWA requests that the Board consider a tiered approach similar to other State Water Board Regulations with the least regulated tier applying to those agriculture lands that are not in a recognized water basin or sub-basin. In conjunction with this tiered methodology an approved management practice program would be required and existing groundwater data reviewed and assessed to verify the objectives of the ILRP are being achieved. 48-1 cont'd

Based on the information provided, it appears that the County of El Dorado County irrigated lands should not be required to conduct groundwater monitoring and should be placed in a least regulated tier as discussed above. It is the intent of the El Dorado County Water Agency to support and work with the El Dorado County Agricultural Water Quality Management Corporation and the El Dorado County Environmental Health department in the development of a compliance work plan. We support the El Dorado County Agricultural Water Quality Management Corporation irrigated land coalition in their action to comply with the Pilot Watershed Management Practices Plan and support their desire to achieve a reasonable and logical management practices plan for the irrigated lands of the County of El Dorado. 48-2

Thank you for your time and consideration of the El Dorado County Water Agency's comments on the Draft Program Environmental Impact Report.

Sincerely,

James R. "Jack" Sweeney
Chairman, Board of Directors

TEB

Cc: El Dorado County Environmental Management
El Dorado County Agricultural Water Quality Management Corporation

3.2.7.1 Responses to Letter 48

48-1

See Master Response 12. Also see Comment Letter 44, Response 3 and Comment Letter 97, Response 6.

48-2

See Comment Letter 5, Response 1.

3.2.8 Letter 142—Fire Safe Council of Nevada County, Joanne Drummond, Executive Director

FireSafe COUNCIL NEVADA COUNTY

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Comment Letter IL142

July 1, 2010

Central Valley Regional Water Quality Control Board
11020 Sun Center Drive
Rancho Cordova, CA 95670

Re: Comments to EIR economic analysis of the Long Term Irrigated Lands Program (ILP)

Dear CVRWQCB:

The Fire Safe Council of Nevada County works very closely with landowners to reduce and manage the fuel loads on their property to reduce fire severity in our county. Agricultural landowners with irrigated pastures provide "green belts" in our very high and high fire severity areas and are an important asset to our community. These green, irrigated areas provide a form of fuel breaks throughout communities and allow areas for the fire fighters to gain control or slow an oncoming wildfire.

Our county-wide Community Wildfire Protection Plan (CWPP) recognized the value of these ecosystem services values during the planning effort to address the wildfire issue across the landscape. We identified these managed agricultural lands as areas that would be likely to be continually managed and therefore would provide long lasting wildfire mitigation benefits. In 1988, the 49'er fire in Nevada County was the largest and most destructive in California history until the late1990's. The 49'er fire was slowed and stopped in areas where ranchers had irrigated pastures. 142-1

The cost to irrigate acres is an expense borne by the agricultural landowner, yet the entire community and watershed benefits. Without these irrigated fuel breaks, fire suppression estimates from CAL FIRE are between $10,000-$100,000 per acre. Removal of these private green belts would likely increase fire suppression costs to the state and counties.

Due to the current CVRWQCB Regional Board's Irrigated Lands Program and the proposed quadrupling of fees to agricultural landowners, some landowners have stopped irrigating because they can not bear any additional costs to their agricultural operations. This in turn will reduce irrigated areas that have proven in the past to be valuable areas for fire protection and suppression.

We strongly urge CVRWQCB to consider the loss of irrigated acres in our county due to the proposed increased costs to agricultural landowners from the Long Term ILP program along with the potential destruction of entire watersheds to catastrophic wildfire.

Sincerely,

Joanne Drummond
Executive Director

3.2.8.1 Responses to Letter 142

142-1

See Comment Letter 46, Response 3 and Master Response 7.

3.2.9 Letter 1 and 118—Kern Delta Water District, L. Mark Mulkay, General Manager

Comment Letter IL1

Kern Delta Water District
501 TAFT HIGHWAY
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September 23, 2010

ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com
FAX: (916) 456-6724

RE: ILRP CEQA Comments

Dear Ms. Smith:

The Kern Delta Water District, a California Water District formed pursuant to, and operating under, Division 13 of the California Water Code (District), appreciates the opportunity to comment upon the Draft Program Environmental Impact Report for a Waste Discharge Regulatory Program for Irrigated Lands within the Central Valley Region.

Please be advised the District is concerned about the intended scope of the newly proposed Program, the anticipated costs associated with the Program, and the environmental analysis performed under the California Environmental Quality Act, which we believed is flawed, all as set forth and explained in the attachment entitled ANALYSIS OF THE INTEGRATED LONG RANGE LAND PROGRAM/AMENDMENT AND EXPANSION OF THE AG WAIVER, CEQA ANALYSIS, AND ECONOMIC EVALUATION, which is incorporated herein as though set forth in full. Please include these comments in the official record of proceedings. 1-1

Again, thank you for the opportunity to comment.

Sincerely,

L. Mark Mulkay
General Manager
Kern Delta Water District

Encl.

Cc: Robert W. Hartsock, esq.

ANALYSIS OF THE INTEGRATED LONG RANGE LAND PROGRAM / AMENDMENT AND EXPANSION OF THE AG WAIVER, CEQA ANALYSIS, AND ECONOMIC EVALUATION

The 2000+ page CEQA alternative document is long, unclear, disjointed, repetitive and has its meaningful components totally camouflaged by voluminous content. The document thoroughly analyzes the five alternatives that have been identified for over a year and which captured the broad extent of program options. These alternatives have been analyzed, vetted through the interested parties and have become familiar to Board members. They have also been evaluated under an economic analysis, unfortunately an analysis with significant flaws, to determine the economic impact of each alternative. The CEQA review did not evaluate what has become the preferred staff alternative. Similarly, the Economic Analysis also did not evaluate the recently developed staff alternative. The preferred alternative is actually a misnomer as it was not even referenced in either the CEQA or Economic Analysis, but instead was merely attached thereto as an Appendix. As discussed below we believe that is improper, however, because the staff is trying to reverse this entire process and focus only on the staff alternative, we will commence these comments with the staff preferred alternative and then discuss the Draft Programmatic Environmental Impact Report ("DPEIR"). 1-2

I. Long- Term Irrigated Lands Regulatory Program Staff Report / Recommended Program Alternative

Notwithstanding the extensive environmental review and lengthy period of analysis, the Regional Board staff has recently come forward with what it envisions is their regulatory program to be included under the Long-Term ILRP. In recent weeks staff has concentrated its efforts on what was first known as a "staff straw proposal." The "straw proposal" has been offered in multiple iterations during its short life and is now presented in Long-Term ILRP Staff Report ("Report") as the Recommended Program Alternative ("RP A") - even though it is not one of the five alternatives analyzed under the DPEIR. When it first emerged as a straw proposal, the agricultural, agribusiness, and ag water quality coalitions were in strong opposition to this late arriving alternative, and in particular voiced significant opposition to consideration of this proposal if it was not going to be subjected to a full CEQA analysis. Notwithstanding this strong opposition, Regional Board staff has persisted in their efforts to implement this "staff straw proposal" by selectively mixing and matching elements from identified alternatives to arrive at the RP A. This approach circumvents CEQA and violates the due process and public notice rights of landowners and agricultural operations subject to the regulations. The law does not allow a lead agency to avoid CEQA analysis by belatedly developing a program alternative, arbitrarily choosing and mixing certain elements from EIR proposed alternatives. 1-3

A. Groundwater

1. Staff seeks to have the Long-Term ILRP program expanded to include not only the existing surface water waiver, but also the very complex area of groundwater. The Staff Report wrongfully asserts that virtually all agricultural lands, including those that do not drain to surface waters of the state, shall be considered as discharging to groundwater. (Staff Report at p. 143 et seq.) As we have pointed out many times, this is simply factually incorrect. By example, lands that are farmed many hundreds of feet above groundwater and use drip irrigation 1-4

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constituting only a few inches of irrigation water during the summer months coupled with annual winter rainfall of less than ten inches have absolutely no percolation or discharge to groundwater whatsoever, much less have the capability of carrying a contaminant from the surface many hundreds of feet to underlying underground water which itself may be decades or hundreds of years old, and may have originated dozens of miles away. 1-4 cont'd

2. The incorrect position that all irrigated lands discharge to groundwater leads to the erroneous conclusion that the Regional Board has jurisdiction over all lands and, under that alleged jurisdiction, the Regional Board has the authority over all irrigators. This assertion of jurisdiction and requirement that all irrigators must comply with waiver restrictions ignores the limitations on Regional Board authority to discharges that affect the water quality of waters of the state. (Wat. Code § 13000 et seq.) This assumption of discharge attempts also to shift the burden of proof from the Regional Board to the farm owner or land operator to disprove the erroneous postulation (that all irrigated lands discharge waste to groundwater). This is also inconsistent with the burden expressly outlined in California Water Code section 13267, which states that the Board "shall provide a written explanation of the need for such reports and shall identify the evidence that supports requiring reports." (Wat. Code, § 13267, subd. (b)(l).) 1-5

3. The assumption that the act of irrigating a crop is considered a discharge to groundwater that causes the degradation of groundwater is not provable or even plausible. The general notion of groundwater vulnerability is not a surrogate for groundwater quality data and cannot be used as the basis for (1) assuming discharge to groundwater aquifers or (2) placing virtually all parcels in Tier 2. To do so would be unreasonable because landowners would be faced with the burden of trying to "prove" a negative, which if achievable at all, could only be done at unreasonable great expense. 1-6

4. The staff proposal indicates that the Regional Board anticipates that the authority to regulate discharges to groundwater would increase their regulatory jurisdiction over an additional two million acres. This is certainly an incorrect number as there are more than two million irrigated additional acres in the Southern San Joaquin Valley Water Quality Coalition alone, which do not drain to surface water. This error is indicative of the failure of the Staff Report to accurately address the realities of groundwater or reflect the actual impacts of proposed program. 1-7

5. The Regional Board has two overreaching related obligations in this regulatory process: (1) it must advance a factually correct waiver, and not merely allege improper facts just to satisfy a zeal for regulation; and (2) it must carry the burden to clarify for those who have had no previous connection to the ag waiver, that they may now have an exposure to this new regulatory program. The staff proposal fails to comply with the Porter-Cologne requirement of notifying the person potentially discharging. (Wat. Code, § 13263(f).) By not developing and publishing an applicable standard (where groundwater discharges occur) concerning the lands potentially affected under the proposed new program, there has not been effective regulatory notice, nor the required CEQA notice. (pub. Resources Code, § 2 1092, subd. (b)(l); CEQA Guidelines, § 15072, subd. (f)(1)-(6).) 1-8

6. In the Staff proposal, first encountered groundwater is identified as the basis by which tiers will be assigned. However, first encountered groundwater is an improper 1-9

- 2 -

standard to use when evaluating water quality impacts. It should not be used to judge water quality impacts because the term does not accurately reflect groundwater conditions in the Central Valley. First encountered groundwater in most areas is not and has never been of suitable quality for either drinking or agriculture use. 1-9 cont'd

B. Grandfather Status

1. In the many meetings with Regional Board staff and with those responsible for crafting the CEQA document and the regulatory proposal, it has been indicated that existing grower participants in coalitions would be grandfathered in and not have to reapply under the new waiver. It has also been agreed to in principal that the new waiver would begin with the existing coalitions (should coalitions continue to be willing to implement the waiver on behalf of the Regional Board). The long-term ILRP program as presented in the staff proposal does express that members would be grandfathered in (Report at p. 144), but it fails to put in writing, what has been stated to us, that the waiver would commence with the existing coalitions. We find that problematic especially when contrasted with the language (Report at p. 145) that Regional Board staff believes there will be 8 to 12 new orders. This would not be consistent with the five major coalitions in existence today. 1-10

2. In contrast to the treatment of agricultural coalitions, the staff Report recommends that greenhouses and entities with operational spills (water districts) will be jettisoned from waiver coverage. (Report at pp. 142-156.) This provision as proposed will have a major impact on greenhouse operations and it does not appear that these amendments have yet been vetted back to greenhouse operators. Water districts have also been eliminated from coverage under the waiver without suitable replacement coverage. 1-11

3. The Report also confirms that managed wetlands (including federal refuges) are expressly covered by the waiver. However, this is a change from the dichotomy of how the Regional Board currently deals with refuges. Northern refuges participate in coalitions and are covered under the existing waiver, but the southern refuges are not. Regional Board staff should take appropriate steps to have a uniform policy regarding these managed wetlands. 1-12

4. The Southern San Joaquin Valley Water Quality Coalition does not have extensive water quality issues. The Report indicates that there are 686 waste water combination exceedances that resulted in management plans. The Report discusses total exceedances in the Central Valley and across the Tulare Lake Basin. It points out that there are only a total of 12 exceedances in the entire Tulare Lake Basin, and only five of those exceedances attributed to agriculture. Specifically, our coalition has only a couple of required management plans. The Report also indicates that across the entire Southern San Joaquin Valley Water Quality Coalition, there is only one water segment having a 303d listing. (Report at p. 20.) This data is supportive of the argument that the current waiver is working and that coalition participants are entitled to be grandfathered into any new program and any new regulatory requirements be moderate. 1-13

5. The Report states that most coalition groups have no regulatory authority over members. (Report at p. 9.) This is an inaccurate statement in respect to the Southern San Joaquin Valley Water Quality Coalition that is largely managed by water districts and water experts. Member water districts have a certain amount of regulatory authority over the delivery 1-14

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of water and discharge of water in their districts. Member districts have been aggressive in removing agricultural drains to control discharges. 1-14 cont'd

C. Unreasonable Timelines

1. In respect to timelines, the staff proposal indicates that (a) within the first three months of adoption there would have to be a declaration of involvement, (b) by 12 months the Regional Board would issue responses or approvals and (c) that within 30 months all that are to be required to do so would be enrolled.

2. These are unreasonable timelines. The regulatory expansion to include groundwater issues will require each coalition to struggle with and determine if they can possibly implement the terms of the new waiver. This evaluation process will certainly take more than three months to understand all the issues and ramifications. Thirty months is extremely optimistic for the coalition to be able to convince growers who have never been part of the waiver, that they may have to become part of the waiver if, in fact, there is a demonstrable potential that their irrigation water may percolate to groundwater. 1-15

3. Implementation will be further impeded and delayed because of the complexity associated with the proposed mix of general WDRs and waivers, a mix between groundwater and surface water regulations, a mix of low and high priority (tier 1, tier 2) areas, and the expansion of all these provisions to groundwater.

4. The Report appropriately indicates that Porter-Cologne authority allows some reasonable degradation of waters if the purpose behind the discharge has an over-riding "maximum benefit to the people of the State." (Report at p. 66.) Clearly, agriculture is the most important economic engine of the state and certainly of this region. Therefore, the significant and important public benefits associated with agriculture need to be factored in when assessing exceedances and developing timelines for achieving water quality objectives. For the reasons stated above, these time lines and the timelines for achieving objectives included in the staff proposal are unreasonable.

D. Internal Inconsistencies

1. The Report indicates that a coalition could be comprised of a mix of high and low priority areas. This mix would be based on exceedances and risks, and could vary independently between surface water and groundwater. Yet, there is one reference that indicates that if there is a mix of high and low priority that the area would be deemed "high priority" for all purposes. (Report at p. 151.) This seems to be internally inconsistent, and also inconsistent with the overall notion that low priority areas will have less regulatory rigor. 1-16

2. The three year phase-in referenced on Page 143 seems to be in direct conflict with other stated timelines of 18 and 30 months. (See point C. above) 1-17

3. See also Footnote 59, which further confuses what the timeline is for dealing with AB 3030, SB 1938 programs and Integrated Regional Plans.

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E. Prohibition of Discharge

1. The Report advances the regulatory option that there would be a "prohibition of any discharge" if a farmer is not appropriately signed up under the waiver. Such a prohibition is essentially a death penalty not just to that farm operation, but any other farm operation situated down gradient that might rely on tail water from the targeted farm. Consequently, such a prohibition would in most every instance be a very inappropriate remedy. The problem is compounded when associated with the regulatory expansion to groundwater which raises the likelihood that it is going to take a multi-year process to convince even those growers that may actually have a potential to percolate to closely associated groundwater to sign up under the waiver, and there is very little chance to get those who have no such potential (and are therefore outside the jurisdictional scope of the Porter-Cologne), to subject themselves to this regulation. Consequently, it is easy to anticipate that there are going to be many farmers in this category, particularly relative to groundwater. 1-18

2. This also raises a second issue: how does the Regional Board impose the remedy of a prohibition to discharge if in fact the alleged discharge is by percolation to groundwater. 1-19

F. Low Threats to Water Quality

1. The Report indicates on page 149 that there would be a separate category for areas that have no or little impact to state water and it references the Existing Conditions Report which expressly indicates that there are areas that have no such impact. This raises the possibility of a no threat or low threat component. It seems that some areas of isolation from surface water with no reasonable connection to groundwater would qualify under this provision. This would also be true of mountain valley areas with limited agriculture that have either no, or very limited, potential impact to surface water. Therefore, it seems such areas need only advance to the Regional Board very modest monitoring proposals. This is expressly provided in Water Code § 13269(3), which states the Regional Board may waive monitoring requirements for discharges that do not pose a significant threat to water quality. 1-20

G. Tiering

1. We understand the staff alternative proposes to categorize lower risk areas as Tier 1 and higher risk areas as Tier 2. Presumably, Tier 2 will be limited only to areas which have management plan requirements. The relevant questions are how will the determination between areas be made and what is the process to determine the extent of those categories. In order to be able to appropriately evaluate this proposal, we need the opportunity to sit down with the Regional Board staff and determine the isopleths of what would be regarded as the nitrate groundwater area and the impact areas leading to our groundwater and affecting our two management plans. 1-21

a. It should also be clarified as to if general water constituent and characterizations such as DO, EC, pH, pathogen would be utilized to classify lands into Tier 2. We believe they should not. 1-22

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2. Under the Long-Term ILRP Prioritization Scheme Example set forth in Figure 23 (Report p. 161.), it appears as though very few if any areas will be Tier 1. In the portion of the diagram marked "Area A" it refers to exceedances without distinguishing if these are irrigated agricultural related exceedances, which trigger management plan requirements, as it does in the "Area B" diagram. It simply says "Surface Water Objectives exceeded" and "trending degradation of surface water attributable to." First, this reverses what should be the regulatory burden - Tier 1 unless a demonstrated problem moves it to Tier 2. Under this scenario, multiple fecal coliform exceedances in surface water giving rise to a management plan that actually came from a wastewater treatment plant source would still compel a determination as a Tier 2 area. 1-23

H. Monitoring

1. Attachment C of the staff proposal deals with groundwater management plans and requires groundwater monitoring and further requires the evaluation of the effectiveness of any management practices that are employed to address an impairment. The proposal, however, does not make any attempt to clarify the level and intensity of such monitoring, nor how monitoring would be designed to track the effectiveness of 2012 management practices where problem constituents many have been applied in prior decades. This lack of detail on this major requirement is a fatal flaw in the proposal. 1-24

2. The Report indicates that Tier 2 groundwater monitoring would include establishment of baseline and trend data and evaluation of changes in management practices. The Report is silent on how staff believes this could possibly be achieved. In addition, the Economic Analysis omits any discussion of this issue including its significant cost. 1-25

3. The Report indicates that groundwater monitoring would be required, however, it is completely silent as to what would be considered the acceptable level of monitoring, therefore this provision is impossible to evaluate and, once again, the economic analysis did not evaluate how many new monitoring wells would be compelled by this provision. The Report is unclear as to the specifics of groundwater monitoring itself. It indicates that baseline, trend and impairment monitoring would all be required, particularly in respect to nitrates and pesticides, but does not state how this would be accomplished. In order to evaluate both the impact and the cost associated with this proposal, the Regional Board has to bring clarity to the questions regarding the adequacy of existing monitoring in what areas, and what additional monitoring would have to be engaged. It cannot be left to implementation on a "trust us" basis. 1-26

4. The proposal goes on to indicate that if there is "insufficient progress" on data, then the coalitions would be required to augment additional monitoring within five years. The document, however, is unclear as to what would constitute sufficient or insufficient monitoring. This uncertainty gives rise to problems as to reasonable notice as well as to make the Economic Analysis impossible if there is ever an economic analysis of the staff proposal. 1-27

5. Appendix B of the staff proposal deals with nitrates and suggests that there needs to be some means by which to identify the source of nitrate problems. It expressly recognizes that any leaching of nitrates is not exclusively related to the amount applied, but also 1-28

can be significantly influenced by irrigation methods, rainfall, soil, etc., and depth of groundwater. These realities need to be reflected in the program requirements.

6. On page 25 of Appendix B, it talks about nitrate impacted areas, and expressly evaluates Kern County. On page 33, it states that only two of 17 wells in Kern County had exceeded nitrate standards, and also indicates on page 34 that the Tulare study of nitrates shows an exceedance of the nitrate MCL value, however, it indicates that the study is presently being reevaluated. Further, clarification on the impact of these monitoring results is therefore needed. 1-28 cont'd

7. Appendix B on page 43 sets forth the extreme position that up to 50% of nitrate applications can reach groundwater, but indicates that experts are highly divided in this area, so no particular conclusion can be reached. This language should be deleted from the Report. 1-29

1. State Anti-Degradation Policy

1. The Report references the State anti-degradation policy on page 57, and discusses its application to high quality waters of the state. However, the Report fails to address the many foundational issues associated with the policy before it determines how it will be applied. In place of a meaningful analysis the Report simply states that "[g]iven the complexity of determining baseline quality in the Long-term ILRP context ... any anti-degradation analysis ... will assume that at least some of the waters into which agricultural discharges occur are high quality waters because unpermitted degradation has occurred since 1968." (Report at p. 61.) The assumption made in the Report is conclusory, and lacks factual support. As a result, the application of the State's anti-degradation policy is improper and subject to challenge. 1-30

2. The Report seeks to apply the best practical treatment or control ("BPTC") of a discharges under a WDR. This attempt to force additional regulatory requirements on dischargers tails in application because even though the source of some Central Valley waters may be of high quality, the waters receiving ag discharges are not high quality waters as the term is used in State Water Resources Control Board Resolution 68-16. The resolution specifically states that "any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained." (SWRCB Res. No. 68-16.) The Report attempts to redefine "high quality waters" using the concept of "baseline condition." (Report at p. 60.) There is no legal basis for this approach. The Report admits as much when it states the "term 'baseline' is not used in the State of federal anti degradation policies but is a significant concept for application of the antidegradation law." *(Ibid)* 1-31

3. The anti-degradation policy of the ILRP must be consistent with SWRCB Resolution No. 68-16 in its application to high quality waters of the state. Policy requirements as to lower quality and impacted waters must reflect a different standard. 1-32

-7-

4. Further, even if BPTC of a discharge is required there are limitations to its application. The BPTC approach to pollution control is based on adopting the best technology for pollution control available at a reasonable cost and operable under normal conditions. BPTC is derived from the phrase "best practical control technologies" referred to in Sections 301 (b) and 304(b) of the Clean Water Act (which does not extend to agricultural non-point waters). In these sections, best practical control technologies is referred to when discussing the control of point source effluent from private operations. In application, BPTC refers to the best practical control technology currently available. The staff proposal on page 152 indicates that existing management objectives on Tier 1 lands will be considered as BPTC. Accordingly, The Report needs to clearly define the term and recognize that even though BPTC is the preferred approach, it has significant limitations on its application. 1-33

5. The associated tributary rule which has applicability in most other regions of the state, therefore, has limited application in our coalition area because our waters are tributary only to the valley floor sinks which are not sources of municipal water, and, therefore, the tributary rule has very limited application in our coalition area. 1-34

J. Groundwater Management Plans

1. The Report recognizes that current groundwater quality programs already in place. (SB 1938, Integrated Regional Programs, etc.). (Report at p. 88.) The Report also calls for groundwater management plans to be developed in 18 months. (Report at p. 154). This, like other timelines addressed above in section C, is wholly unreasonable. The Southern San Joaquin coalition is largely covered by SB 1938 or Integrated Regional Plans which the Legislature has codified in statute as being the means by which groundwater quality should be addressed. Therefore, the development of new groundwater management plans is unnecessary in most of our coalition area. At most, the upgrade of existing plans would be all that is needed to fully conform to any regulatory water quality program. Based on coalition experience in developing SB 1938 and Integrated Regional Plans, it is very clear that 18 months is a wholly insufficient time frame. Any Regional Board waiver program should be consistent with these existing provisions of law and based on a local realistic time frame for compliance. 1-35

2. It remains somewhat unclear if the Regional Board has the authority to go beyond the statutorily created multi-jurisdictional local plans (SB 1938 and IRMPs) in its water quality efforts. If it holds that the Regional Board does have some additional authority, some of the items discussed immediately below will need to be included into the Regional staff proposal. Any additional provisions required under the new waiver program will certainly take more than 18 months to go through the multi-disciplinary and multi-agency steps necessary to make amendments to these existing plans that took years to create. 1-36

K. Nutrient Budgeting and Irrigation Efficiency

1. The Report states that under certain situations groundwater programs would require nutrient budgeting and irrigation efficiency. (Footnote 60, at p. 154.) It is uncertain, whether the Regional Board has the authority to demand specific on-farm practices. The Regional Board is not the agronomic or fertilizer agency of the state as that authority is vested expressly in the California Department of Food and Agriculture. The application of 1-37

fertilizer is a necessary agronomic feature, and is entirely distinct from the dairy program which involves applying a waste product to the land, and, thus, offers a jurisdictional nexus to the Regional Board.

2. By way of example, the Regional Board is without authority to tell Chevron how to operate a refinery or a high tech firm how to manufacture or clean their equipment. Using the same line of reasoning the Regional Board does not have authority to dictate to a farmer what to grow or how to grow it. The Regional Board's jurisdictional authority starts at the discharge point. 1-37

3. Beyond these legal and jurisdictional questions, the Report does not define nor explain how nutrient budgeting would occur or how irrigation efficiency would be determined or a particular irrigation practice either prohibited or mandated (report at p. 154). The environmental effects from just these two major uncertain actions in the Recommended Alternative were not addressed under any alternative evaluated under the DPEIR. Correspondingly, the economic impacts from these major actions may be huge, but were not evaluated in the economic analysis completed as part of the CEQA requirements. 1-38

4. In respect to nitrogen, the Report identifies the total tonnage of nitrogen fertilizer applied by agriculture in California. However, this gross number is meaningless without: (1) limiting tonnage to that applied in the Central Valley; and (2) reflecting an appropriate agronomic calculation as to how much nitrogen was taken up by the crops it was applied to across the Valley. The Report on page 20 recognizes that there is a long lag time between the use of a soil amendment and its ultimate detection in the event that any is leached into a groundwater aquifer. The Report should delete any discussion of nutrient budgeting as it fails to cite any regulatory authority over nutrient applications and does not even attempt to address any of the CEQA requirements associated with such an action. The economic impacts associated with limiting a farmer's yield on a crop due to nutrient budgeting limitations or irrigation efficiency restrictions was totally ignored. 1-39

5. The EA indicates that annual agricultural production in the Central Valley region is approximately $9.866 billion. In 2008 the value of agricultural production in Fresno, Tulare, Kern and Kings counties alone was $16.48 Billion. The overall value of California agriculture in 2008 was $36.2 billion. Again, this type of inaccurate statement of facts is indicative of the weaknesses inherent throughout the CEQA documents. (EA at p. 3-6.) 1-40

L. Agricultural Management Practices

1. The Report indicates that there should be an identification of (a) existing agricultural practices and (b) identification of what agricultural practices would have to be amended or enacted in certain areas. (Report at p. *150.)* Any farm operation would involve several dozen to hundreds of separate management decisions during the course of the year for each field. Coalitions clearly cannot be obligated to identify the hundreds of thousands of management decisions and management practices that are involved across the millions of acres in the coalition. The scope of management practices should be limited to identification of particular management practices that are directly related to a water quality problem. 1-41

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M. Compliance Timelines and Enforcement Actions

1. The proposal states that water quality exceedances should all come into basin plan objective compliance within five to ten years. (at p. 159). This (like other timelines discussed above in sections C and J) is wholly unrealistic even as to surface water. In areas where multiple issues exist in surface water like DO, Ph, pathogens, salinity, etc., and water quality improvement efforts are under way and have been for years, it is unrealistic to assume because the Regional Board creates another program that these issues are going to somehow magically improve under a new specified timeline. 1-42

2. The proposal states that if any objectives are not reached within the applicable five to ten year period, then all growers in the coalition would be compelled to prepare individual farm management plans. Such a policy would only be justified if certain conditions were found to exist. First, if it was determined that the individual farmer was directly responsible for causing the impairment. Second, if specific management practices were identified as causing the problems, and those identified practices could be modified to cure the problem. Third, that the required individual farm plan would be more effective than a collective, coordinated approach through the coalitions. (Report at p. 155). The staff proposal apparently makes the assumption that individual farm plans may be more effective than broader monitoring and management plans with the strength of the coalition behind it. That assumption is not supported in the Report, and likely cannot be supported. Instead, it is apparently offered merely as a retaliatory penalty. 1-43

3. The compliance timelines, as stated above, are problematic overall, but are especially troublesome when dealing with groundwater quality. Groundwater issues are typically years in the making and may be the result of legacy pesticides, or water constituents such as pH, DO, salinity. 1-44

N. Coordination of Existing Programs

1. The proposal states that there should be coordination between the irrigated land program, the diary program, SWAMP, DPR, etc. (Report at pp. 156-57.) Such coordination is meritorious and has been stressed for years by our coalition, particularly regarding coordination with the dairy program and other Regional Board programs dealing with E.coli/fecal coliform. The Regional Board has been reluctant to fully coordinate these programs, and this needs to happen. 1-45

2. The proposal at page 33 discusses E.coli, which has no basin plan objective level. Fecal coliform does have a 200 colonies per hundred milliliters objective. There have certainly been pathogen detections in some of the water column samples, but a University of California study indicated that much of the pathogen is not attributable to irrigated agriculture. This point was omitted from the proposal. The proposal also fails to acknowledge that there should be a high level of coordination between other Regional Board programs dealing with these pathogens and the ILRP. 1-46

3 The proposal infers that the bright/clear line between the dairy program ↓1-47

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and the ILRP is going to be eliminated or significantly altered. The proposal, however, is unclear as to how this will occur, and does not address the confusion that could arise if it is not done properly. 1-47 cont'd

O. Outside Party Participation

1. The language concerning "other interested parties" (Report at p. 154) appears to improperly open the door for negotiations on surface and groundwater management plans to other uninvolved parties. Management Plans and Monitoring and Reporting Program Orders have historically been approved by the Executive Officer and do not require multi-party negotiations. This language regarding public input also appears on page 155. 1-48

2. The proposal suggests that the public would be involved in determining the Tiering of an area. "Third-party groups and the Central Valley Water Board would identify low and high-priority areas in the development of watershed/area/commodity-specific implementation mechanisms during the 3-year transition period. The Central Valley Water Board intends to use existing information in this prioritization. However, there will be the flexibility for third-party groups and other interested parties to provide additional information during the process." (Report at p. 151) 1-49

3. Footnote 57 also appears to indicate that when the coalitions identify their priority areas within the first three years of transition, that there would be public input on those determinations as well. This type of input is not required under the law and is unnecessary. It will delay and complicate development of required documents and certainly cause even extended timelines to be missed. It may also detrimentally affect participation.

P. Tributary Rule

The Report indicates it will focus on waters that are tributary to areas having aquatic life and would treat these as priorities. Due to the tributary rule it asserts, that would transpose such standards to upper basin waters. We addressed the tributary rule above in Section 1., but it is noteworthy that this particular reference indicates that this would not involve "ag drains". The Regional Board needs to clarify what is considered an ag drain as it applies to this section and return ag flows. 1-50

II. Draft Programmatic Environmental Impact Report

A. The DPEIR Does Not Describe or Analyze the Proposed Alternative

1. The DPEIR includes five proposed alternatives. However, it does not include a description or analysis of the RPA discussed in the staff Report. The RPA apparently combines elements of the five identified alternatives to belatedly develop a staff preferred appendix which they are now calling an alternative. The RP A is now the proposed project and must be analyzed. The DPEIR does not make any attempt to analyze the environmental impacts that would result if all of the identified elements were combined with each other, which is how they would be implemented if the staff alternative RPA were selected. 1-51

2. A draft environmental impact report (EIR) must include a general

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description of the proposed project's technical, economic, and environmental characteristics. (State CEQA Guidelines, § 15124(c).) The project description must be stable, accurate, and consistent throughout the EIR. "An accurate, stable, and finite project description is the sine qua non of an informative and legally sufficient *EIR."* (County of Inyo v. City of Los Angeles (1977) 71 Cal.App.3d 185, 193.) "A curtailed or distorted project description may stultify the objectives of the [CEQA EIR] process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance." (Id. at pp. 192 93.)

1-51 cont'd

3. The DPEIR does not mention the staff RPA anywhere in its text. The RPA is only presented in the appendices. In *Vineyard Citizens for Responsible Planning* v. *City of Rancho Cordova* (2007) 40 Ca1.4th 412, the Supreme Court reaffirmed that key pieces of the CEQA analyses cannot be buried in the appendices. Here, the RP A - *the proposed project itself* - staff is recommending that the Regional Board implement as the program - is presented *only* in the appendices. This is a blatant violation of *Vineyard,* and it results in serious errors in the environmental analysis. An EIR is required to analyze the environmental impacts associated with any proposed mitigation measures. (State CEQA Guidelines, § 15126.4(a)(1)(D).) Thus, the DPEIR suffers from both substantive and procedural flaws that are fatal.

B. Cumulative Impacts of the RPA Have Not Been Analyzed

1. The RP A is "a conglomeration of elements presented" in the five alternatives that are analyzed in the DPEIR. The RP A was not analyzed, whatsoever, in the DPEIR. Further, no attempt has been made to analyze the effects of the combined components of this alternative. Compounding this error, the DPEIR does not identify "any projects or programs adequately similar in nature, location, and type to result in a meaningful comparative analysis." "A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." (State CEQA Guidelines, § 15130(a)(1).)

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2. In contravention of State CEQA Guidelines section 15130, the DPEIR employs neither a list nor a summary of plans and projections approach to the cumulative impacts analysis. In fact, the DPEIR does not identify a single program, policy, plan, or project to be included in the cumulative impacts analysis. Instead of analyzing the cumulative effects of the project together with other projects causing related impacts, the DPEIR concludes that there are no other projects - and analyzes the cumulative impacts of the project, standing alone. This analysis cannot withstand scrutiny. Other programs and projects that have the potential to affect water quality in the program area include U.S. EPA's recent action banning pesticide application in certain areas, and numerous pending NPDES and other permit actions.

C. The Environmental Analysis is Flawed Due to Inaccurate Baseline Conditions

1. The Environmental Setting fails to describe accurately the existing environmental conditions, even at a programmatic level. "Knowledge of the regional setting [of the project] is critical to the assessment of environmental impacts . . .. The EIR must

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demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed and it must permit the significant effects of the project to be considered in the full environmental context." (State CEQA Guidelines, § 15125(c).) Toward that end, the DPEIR "must include a description of the physical environmental conditions in the vicinity of the project, ... from both a local and a regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." (Id. at § 15125(a).)

2. First, the "Existing Setting" chapter is, by its own admission, incomplete. For example, the description of the existing conditions related to surface water makes no mention whatsoever of the amount of surface water currently being diverted or the amount being used for irrigation by participants in the Irrigated Lands Regulatory Program (ILRP). Likewise, there is no indication of how much water is returned to stream systems after agricultural use, and how much of that water is derived originally from groundwater basins or surface water sources. Absent this information about the existing physical conditions, it is not possible to determine whether the proposed new regulatory program will cause significant impacts on water supplies, stream systems, or the fish, wildlife and plants dependent on those systems.

1-53 cont'd

3. The DPEIR attempts to overcome the gaps in the "Existing Setting" chapter by adding a discussion of environmental setting to each of the impact analyses. This is confusing to the reader because these supplemental discussions of the "existing setting" are not entirely consistent with the description provided in the "Existing Setting" chapter. Moreover, even the supplemental discussions in the impact analyses are improperly truncated. For example,

4. To the extent the Draft PEIR relies on the "No Program" Alternative to represent the existing baseline conditions, this is improper in this case. The "No Program" Alternative misstates what will occur absent any Water Board action. Because neither this nor any of the other attempts in the EIR to describe the environmental setting is legally adequate, the EIR lacks any accurate baseline against which to judge the environmental impacts of the proposed program.

D. The DPEIR Fails to Evaluate the Reasonably Foreseeable Effects of the RPA on the Environment

1. "In evaluating the significance of the environmental effect of a project, the lead agency shall consider direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes in the environment which may be caused by the project." (State CEQA Guidelines, § 15064(d).) "An indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment." (State CEQA Guidelines, § 15064(d)(2).)

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2. The DPEIR fails to achieve this charge. For example, the DPEIR acknowledges that, under the alternatives analyzed, the higher cost of irrigation would result in less water being used and some land going out of agricultural production. However, the

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DPEIR's analysis stops there. It does not consider what impacts will be caused by the reasonably foreseeable result of less irrigation, such as less water returning to stream systems and diminished flows at certain times of year, and less irrigation water reducing the amount of groundwater recharge that would otherwise occur, particularly in the San Joaquin Valley where many of the surface water delivery systems were built with the intent to increase local groundwater basin recharge.

1-54 cont'd

3. Similarly, the DPEIR acknowledges that the program will result in the conversion of agricultural lands to other uses, but it fails to analyze the reasonably foreseeable impacts associated with that conversion, such as increased valley temperatures (see Climate Change comments, infra), and conflicts with existing land use regulations and zoning (see Land Use comments, infra). All of these direct and indirect impacts resulting from the implementation of the program must be analyzed in the DPEIR.

4. The staff alternative was not analyzed whatsoever and raises the possibility of nutrient restrictions which will impact cropping patterns. It also suggests regulatory action to restrict certain irrigation practices (i.e., a 2 ac-ft limit or no row crop irrigation), which would have major environmental, economic and community impacts.

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E. The DPEIR Fails to Address the Program's Potential Impacts on Land Use

1. A draft EIR must "discuss any inconsistencies between the proposed project and applicable general plans and regional plans," including habitat conservation plans and natural communities conservation plans. (State CEQA Guidelines, §15125(d).) While the DPEIR acknowledges the requirement to evaluate its consistency with General Plans and Habitat Conservation Plans (HCPs), it makes no attempt to analyze these impacts even in a qualitative manner. Its characterization as a programmatic document does not wholly excuse undertaking the required environmental analysis. The DPEIR should evaluate the extent to which adopted General Plans within the program area designate agricultural land uses that would be undermined by the increased irrigation costs imposed by the program and the resulting loss of agriculture. Likewise, the DPEIR must discuss whether and how adopted HCPs in the program area rely on agricultural land uses and how the increased irrigation costs imposed by the program, and the resulting loss of agriculture, would affect those plans.

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2. Even more egregiously, the DPEIR utterly fails to analyze the program's land use impacts. The DPEIR acknowledges that agricultural lands are a resource that must be analyzed under CEQA, and it also admits that many jurisdictions have adopted land use plans, regulations, and zoning ordinances to protect agricultural uses. Yet the DPEIR completely fails to analyze, even at a programmatic level, whether the program will conflict with any of these land use plans, regulations, or zoning ordinances. Again, the DPEIR's status as a programmatic document is not an excuse to omit any discussion of these potentially severe impacts - which is the faulty path taken by the DPEIR.

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F. The DPEIR Fails to Identify the Environmentally Superior Alternative

The DPEIR adopts a NEPA-like approach and analyzes each of the alternatives presented in detail. However, the DPEIR ignores the CEQA requirement to identify the

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environmentally superior alternative. (See State CEQA Guidelines, § I5126.6(e)(2).) 1-58 cont'd

G. Alternative 2

1. Among the five alternatives, Alternative 2 is the best option to strengthen the existing surface water waiver and expand the waiver to groundwater. The extensive CEQA review confirms that Alternative 2 is the superior alternative. The Report evaluates the proposed alternatives on pages 96 through 105 (and in other locations), and finds that Alternative 2 was superior to all other alternatives. The only issue raised in the Report concerning Alternative 2 dealt with groundwater. The Report stated, when discussing groundwater monitoring under Alternative 2, that "feedback mechanisms would not include groundwater quality monitoring to determine whether practices implemented would be maintaining and/or restoring beneficial uses or the highest reasonable groundwater quality." (Report at p. 112.) This criticism is inaccurate as the statutorily created local groundwater quality management plans specifically require such monitoring and Alternative 2 expressly calls for monitoring to be included in the newly created groundwater management plans. Therefore, Alternative 2, without reservation, is the superior alternative. 1-59

III. Economic Analysis

A. Economic Analysis is Flawed and Fails to Adequately Address Economic Impacts

1. The Economic Analysis ("EA") is extremely disappointing and inadequate. The analysis shows only very narrow differences in the economic evaluation between the five alternatives, and has no analysis of the RPA whatsoever. To begin with, the EA states that Alternative I's (misnamed the no project alternative) costs would include administration and the management of water quality information. (EA at p. 2-23.) Since it is the "no project alternative" it is assumed that existing programs would remain in place with no changes or additions. This assumption coupled with the fact that virtually all discharges have implemented the management practices necessary to satisfy current program requirements, one would expect the cost of Alternative 1 to be significantly lower than all the other alternatives. However, on management practice, costs for Alternative 1 are listed at $450,581,233. The costs for Alternative 2, 3, and 4, which are aggressive expansions of the program, are listed at $452,449,969 each. (EA Figures 2-18-2-21.) The analysis indicates only a cost difference of $1,868,736 between the current program and alternatives 2 through 4. Given the fact that any of the alternatives, including the RPA, would require significantly more practices than are currently being implemented, the costs of the alternatives and the RPA as compared to Alternative 1 have to be significantly higher. (EA at p. 2-3.) The economic impact between the alternatives is significant and this fact is not apparent from this analysis. Beyond that, the other alternatives also deal with groundwater, as opposed to Alternative 1 which does not. The costs associated with the monitoring and reporting of groundwater quality are significant, and will lead to total costs under the other alternatives significantly higher than those of Alternative 1, perhaps as much as four times higher. 1-60

2. The EA fails to satisfy CEQA because it does not contain an accurate discussion of the economic and social impacts of the proposed project. (See State CEQA Guidelines, § 15131, subd. (a), 15382.) Where an EIR identifies significant environmental 1-61

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impacts, the related economic and social impacts are relevant. The requirement to consider secondary and indirect environmental effects is mandatory. *(Citizens Association for Sensible Development of Bishop Area* v. *County of Inyo* (4th Dist. 1985) 172 Cal.App.3d 151, 170.) When non-environmental factors are determined to be significant, the EIR must explain the reasoning used to reach its conclusions. Here the costs associated with the proposed alternatives, over $450,000,000 is significant. However, the EA fails to accurately analyze or explain the basis for is conclusions. (See State CEQA Guidelines, § 15131, subd. (b).) 1-61 cont'd

3. Focusing only on groundwater, dealing with nutrients requirements, or imposing additional groundwater monitoring, or amending irrigation practices to meet new efficiency standards are just a few examples of components that vary between alternatives and have a huge impact on the cost of a given alternative and were totally ignored. These costs could easily reach into the dozens or hundreds of millions of dollars. These costs are apparently borne by the affected landowners. If only a thousand farmers had to drill only two monitoring wells at a cost of $200,000, the total cost for that component approaches one-half billion dollars. If 500 farmers had to restructure their irrigation system in only four of their 20 fields at a cost of $40,000 per field, that is $400,000,000. These impacts were totally ignored and when addressed to the environmental consultants at the field hearings, they affirmatively acknowledged these are potential requirements and costs, but said they could not address those impacts because the staff proposal was so imprecise as to what they would actually require. This reflects both regulatory notice problems and the inadequacy of the Economic Analysis. 1-62

4. Further, the Economic Analysis did not specifically analyze the RPA, even though they (the Regional Board staff - not the experts actually engaging the Economic Analysis) have selected a number of $492,000,000 in costs, and they assert an assumption of how much ag land would be required to be retired and how many jobs would be lost with the proposal. Yet, they do not deal with any of the big ticket items or set forth any of their assumptions which makes the environmental analysis nearly useless. 1-63

5. The EA indicates that annual agricultural production in the Central Valley region is approximately $9.866 billion. In 2008, the value of agricultural production in Fresno, Tulare, Kern and Kings counties alone was $16.48 Billion. The overall value of California agriculture in 2008 was $36.2 billion. Again, this type of inaccurate statement of facts is indicative of the weaknesses inherent throughout the CEQA documents. (EA at p. 3-6.) 1-64

6. The Report gives some approximation of the values to drill additional wells, and indicates that new wells would cost between $76,000 and $1,000,000. If the 45 communities that have impaired drinking water drilled new wells, that cost would be between $20 and $47 million to merely drill additional wells across these communities. (Report at p. 50.) 1-65

7. Appendix B addresses monitoring well costs, and indicates on page 21 that they anticipate 5,000 monitoring wells. If these 5,000 wells averaged only *$10,000* (absolutely the wrong cost) each, this would result in $50 million in additional costs. Actual well costs to deep aquifers may cost 10 to 20 times this amount.

8. The Report indicates that the Regional Staff proposes to augment their force and increase staffing to as many as a total of 48 staff members. Even Alternative 2 is 1-66

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determined to lose five jobs in the Tulare Lake Basin, versus Alternative 4 which would cost $511 million with 12 jobs lost. As discussed above, the economic analysis is woefully inaccurate, and significantly under evaluates the cost of all the alternatives. 1-66 cont'd

9. Neither the staff proposal nor the Economic Analysis makes any assumption on compliance, enforcement or other impact costs which will be significant. 1-67

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3.2.9.1 Responses to Letter 1

Note: Letter 118 is a duplicate of Letter 1.

1-1

Comment noted.

1-2

See Master Responses 3, 4 and 17.

1-3

See Master Responses 3 and 4.

1-4

See Master Response 12.

1-5

See Master Response 12.

The Central Valley Water Board recognizes that an irrigated agricultural operation may have waste discharges that do not affect the quality of waters of the state. The Board does not assume that all agricultural operations discharge to groundwater and the Board has not attempted to shift any burdens of proof that are not already part of the California Water Code. For example, page 146 of the Draft PEIR, Appendix A (Alternative 6) acknowledges that a "no regulatory program" option may be available in limited, site-specific circumstances. The description of Alternative 6 also provides options for complying with the California Water Code for irrigated agriculture operators that do have waste discharges that could affect the quality of waters of the state (see Draft PEIR, Appendix A pages 142–160).

1-6

See Comment Letter 1, Response 5. In Alternatives 4 and 6, vulnerability zones are used as one of the tools to prioritize management and monitoring requirements. The zones are not used as a basis to determine whether or not irrigated agriculture may discharge waste to groundwater.

It is generally accepted that there are insufficient resources to characterize waste discharge to groundwater from every agricultural operation. Vulnerability zones have been utilized as a Priority Factor because geophysical parameters (e.g., groundwater depth, soil types) suggest that there is an increased risk that irrigated agricultural waste discharge will impact groundwater quality in these zones (see Draft PEIR, Appendix A, text box on page 151). In development of the Long-term ILRP, the Central Valley Water Board will consider the need to work with dischargers who do not wish to rely on vulnerability analyses to develop groundwater monitoring requirements to determine an approach that will provide a more detailed site-specific assessment of the discharger's affect on groundwater quality.

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See Comment Letter 111, Response 5.

1-8

The Central Valley Water Board disagrees with the comment; the public process undertaken for the project complies with and goes beyond minimum CEQA requirements. (Draft PEIR, pages 2-7–2-10).

The comment does not explain how the cited regulations apply to the ILRP Draft PEIR. State CEQA Guidelines Section 15072(f) provides notice requirements for proposed negative declarations or mitigated negative declarations but does not apply to draft EIRs. Similarly, California Water Code Section 13263 applies to issuance of general or individual waste discharge requirements but does not apply to the development of a program or a program EIR.

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See Master Response 18.

1-10

See Comment Letter 9, Responses 18.

1-11

Greenhouses do not have discharges from irrigated lands; accordingly, greenhouses do not fall within the scope of the Long-term ILRP. To the extent greenhouse operators discharge wastes to ground or surface waters that could affect water quality, the owners/operators are still obligated under the California Water Code to submit a report of waste discharge and receive the appropriate regulatory coverage.

The "operational spill" definition in the current waiver referred to supply water that was not applied to irrigated lands. Since these discharges are not from irrigated lands, they do not fall within the scope of the ILRP. Any discharge of waste by the water districts to ground or surface waters that could affect water quality would require regulatory coverage under Porter Cologne. Those water districts that convey discharge from irrigated lands in conveyances that they own or maintain, would still fall within the scope of the ILRP.

1-12

See Comment Letter 111, Response 11.

1-13

Alternatives 2, 4, and 6 all contain mechanisms for prioritizing ILRP requirements. In areas that do not have water quality problems, reduced monitoring and management requirements would apply. Areas with water quality problems, where agriculture is a contributing factor, would have additional monitoring and management requirements intended to address and monitor progress toward solving the water quality concern. Also, Alternative 6, presented in the Draft PEIR, Appendix A (page 144) specifies that, *"Current ILRP participants would be enrolled automatically (i.e., grandfathered into new program; reapplication would not be required) as the relevant provisions are established."*

1-14

See Comment Letter 111, Response 13.

1-15

See Comment Letter 111, Response14.

1-16

See Comment Letter 10, Response 4.

1-17

See Comment Letter 41, Response 24.

1-18

The commenter's concerns with Alternative 6's conditional prohibition of waste discharge will be considered in the development of the Long-term ILRP. However, the remedy for a farm operation to avoid the prohibition is simply to apply for the necessary regulatory coverage, which 25,000 growers in the Central Valley have done.

1-19

Technically, the conditional prohibition would require that operations not discharge waste that could affect the quality of groundwater unless they have coverage under the ILRP. The implementation of this prohibition would differ depending on site-specific geophysical conditions. Porter Cologne identifies the remedies available to the Central Valley Water Board, including requiring technical reports, issuing a cease and desist order, or issuing an administrative civil liability complaint.

1-20

See Comment Letter 39, Response 1.

1-21

See Comment Letter 47, Response 2. There will continue to be opportunities for meetings with staff throughout the development of the Long-term ILRP, including during development of the orders that will implement the program.

1-22

See Comment Letter 111, Response 21.

1-23

The prioritization of areas under Alternative 6 includes the dimension of whether irrigated agricultural operations are a source of the concern. This is described in the Draft PEIR, Appendix A (see Priority Factors on pages 151–152, bullet 1), and in the example on page 151. Figure 23 has

been modified to be consistent with the Priority Factors. See Chapter 4, Revisions to the Draft Program Environmental Impact Report, page 4-31 of this Final PEIR.

1-24

See Comment Letter 50, Response 8.

With regards to tracking effectiveness of management practices to address water quality impairment, Alternative 6 states that targeted site-specific studies will be conducted at a selected number of sites to evaluate the effects of changes in management practices on groundwater quality (Draft PEIR, Appendix A, page 158).

1-25

See Comment Letter 111, Responses 24 and 25.

1-26

See Comment Letter 111, Responses 24 and 25.

1-27

See Comment Letter 111, Response 25.

1-28

Alternative 6 recognizes these complexities and permits flexibility in the demonstration of compliance (Draft PEIR, Appendix A, page 160). Changes in management practices may include nutrient monitoring, nutrient management plans, and/or reducing nutrient loading. Modeling of nitrogen fate and transport in soil, surface water, and groundwater may also be utilized to demonstrate compliance.

With regards to the Kern County well data cited in the Draft Nitrate Report (Appendix B of the Draft PEIR, Appendix A), four separate studies are discussed. On pages B-25 to the top of page B-27, the Nitrate Working Group Report results are discussed. Kern County was reported to have high nitrate concentrations near Delano, McFarland, Wasco, Shafter, Famosa, Rosedale, Bakersfield, Arvin, Edison, and Lamont. Additional areas of high nitrate groundwater were reported for the Buena Vista Lake bed near Maricopa and Taft and in the area northwest of Lost Hills. With respect to the high nitrate concentrations in Kern County, the California Department of Food and Agriculture February 1989 Report states (page 18), *In a 1982 ground water quality study performed by the Kern County Water Agency (KCWA) and the Kern County Health Department, it was shown that the areas of greatest nitrate concentrations in the unconfined ground waters were found to be in the sandy soils along the east side of the basin where agricultural development began many years ago. Areas where nitrate levels approached or exceeded the State MCL increased in size from an estimated 49 square miles in 1958 to 372 square miles in 1979.*

On page B-28, the State Water Board's 2002, *Draft Groundwater Information Sheet, Nitrate/ Nitrite* is discussed (>30 Department of Health Services (DHS) wells in Kern County exceeding the Nitrate MCL value). On page B-31, The State Water Board's 2002, 305b Report is cited (Kern County had 38 out of 475 California Department of Public Health (DPH) wells that exceeded the nitrate MCL value). Discussion on page B-33 reported the 2006 GAMA Priority Basin Project sampling conducted

on public groundwater supply wells in Kern County (2 wells out of 17 sampled had nitrate above the MCL value).

The Tulare County Focus Area study conducted by the GAMA Program utilized domestic wells for sampling unlike the studies in Kern County (study subject to re-evaluation referenced in the comment). The Tulare County Report was revised on August 2010 with no changes in the reported nitrate detections.

The major difference between the Kern County studies and the Tulare County study was the type of well sampled (Kern-public supply wells and Tulare-domestic wells). The difference between the two well types is that public supply wells with their long screened intervals and perforated intervals positioned far below first encountered groundwater are generally not effective as a means of monitoring impacts due to irrigated agricultural activities. This is particularly true when using public water supply wells for evaluating management practice changes made to address a water quality concern. As a general rule, the deeper the water below the water table, the older the water or said another way, impacts occur to the shallowest groundwater first and over time, these impacts move deeper into the aquifer.

1-29

The 50 percent figure cited is from the 2008 Burow and Green report conducted by the USGS on three focused study areas (areas near Fresno, Modesto and the Merced River). The 50 percent figure is contained within a quote of the Burow and Green article and it appears in the Draft Nitrate Report as follows, *"Analysis using county level nitrogen applications and a wide range of chemical data from sampling vertical monitoring well transects showed that reconstructed nitrate concentrations are consistent with 50% of the applied nitrogen reaching the water table."*

It is unclear why the results of the USGS study should not be included in the Draft Nitrate Report. The findings are reported for the specific study areas and have not been used by staff to extrapolate beyond the boundaries of the study.

1-30

The Draft PEIR, Appendix A provides a broad overview of the regulatory requirements against which the Long-term ILRP alternatives are evaluated. The state and federal antidegradation policies are considered in the context of a regional program rather than a site-specific project. The discussion of the antidegradation policies in the Draft PEIR, Appendix A is thus, by necessity, general and non-specific. The comment's point about assumptions is not supported by the Draft PEIR, Appendix A, as the conclusion that some of the waters receiving agricultural discharges are high quality waters is based on data review rather than assumptions. For example, Draft PEIR, Appendix A, Figure 16 (page 40) shows surface waters sampled for nitrate and whether these waters exceed objectives. As shown in the figure, there are water bodies sampled throughout the Central Valley that do not exceed water quality objectives for nitrates. These waters are considered "high quality" with respect to nitrates. The determination of whether a water body is high quality is established on a constituent-specific basis; accordingly, even if a water body is degraded with regard to some constituents, it may be high quality with regard to other constituents.

1-31

The Draft PEIR, Appendix A acknowledges that the term baseline is not a term of art in Resolution 68-16, but is discussed for purposes of clarification of the meaning of "high quality waters." The Draft PEIR does not intend to create a new legal standard that is not part of the statutory and regulatory direction of the Central Valley Water Board, nor can the Draft PEIR do so. The Draft PEIR, Appendix A (pages 60–61) language has been revised to clarify that the determination of whether a water body is high quality waters requires comparison of the background quality of the water body unaffected by the discharge to water quality objectives. See Chapter 4, Revisions to the Draft Program Environmental Impact Report, pages 4-16–4-18 in this Final PEIR. The Draft PEIR, Appendix A states that background is generally the existing water quality conditions; however, it also discloses that there may be some situations where determination of background relies on historic data.

1-32

See Master Response 5. Revisions have been made to the Draft PEIR, Appendix A to clarify that water bodies that are not high quality waters are not subject to the antidegradation policies. See Chapter 4, Revisions to the Draft Program Environmental Impact Report, pages 4-15–4-16 in this Final PEIR.

In addition, even where a water body is not a high quality water, the Board is required to impose discharge requirements more stringent than the water quality objectives, if those requirements can be met through "best efforts." A discussion has been added to the Draft PEIR, Appendix A citing the authority in support of requiring best efforts. See Chapter 4, Revisions to the Draft Program Environmental Impact Report, page 4-20 in this Final PEIR.

Also see Comment Letter 1, Response 31 and Comment Letter 45, Response 18.

1-33

The term Best Practicable Treatment or Control is found in Resolution 68-16 and is not defined in the Resolution nor is it defined in the California Water Code. Although promulgated federal technology standards may inform BPTC, there is no support for the contention that BPTC is "derived from" these standards, because Resolution 68-16 predates the Clean Water Act. However, it is acknowledged that the BPTC standard is limited by the need for the technology and control to be "practicable." The State Water Board has evaluated what level of treatment or control is technically achievable using "best efforts" and this approach has informed the BPTC analysis. See State Water Board Order Nos. WQ 79-14, WQ 2000-07. The State Water Board has stated "*One factor to be considered in determining BPTC would be the water quality achieved by other similarly situated dischargers, and the methods used to achieve that water quality*." (See State Water Board Order No. WQ 2000-07, at pp. 10-11). In a "Questions and Answers" document for Resolution 68-16 (the Questions and Answers Document), BPTC is interpreted to additionally include a comparison of the proposed method to existing proven technology, evaluation of performance data (through treatability studies), and comparison of alternative methods of treatment or control.

1-34

The application of the tributary rule must be determined on a water body by water body basis. The Central Valley Water Board has designated beneficial uses for listed water bodies, including uses for

certain agricultural drains in its Water Quality Control Plans. See Chapter II of the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins and the Water Quality Control Plan for the Tulare Basin. Additionally, under the Sources of Drinking Water Policy, Resolution 88-63, with certain narrow exceptions, all surface and groundwater of the state are considered to be suitable, or potentially suitable, for municipal or domestic water supply. To address water bodies that are not separately listed in the Water Quality Control Plans, the Central Valley Water Board set forth the so-called "tributary rule." The Board generally does not use the tributary rule to determine beneficial uses for constructed agricultural drains and other nonstream tributaries. The tributary rule generally applies to agricultural dominated water bodies. Even if a water body is not listed, and the tributary rule does not apply, beneficial uses of water bodies may be designated pursuant to other laws or policies.

1-35

See Comment Letter 111, Response 31.

1-36

See Comment Letter 111, Response 31.

1-37

See Master Response 19.

1-38

See Master Response 19.

1-39

See Master Response 19.

1-40

See Master Response 17.

1-41

See Comment Letter 111, Response 33.

1-42

See Comment Letter 100, Response 14.

1-43

See Comment Letter 111, Response 34 and Master Response 13.

1-44

See Master Response 13.

1-45

The Central Valley Water Board appreciates the acknowledgement of the appropriateness of explicitly discussing coordination issues in the recommended alternative and program alternatives. Inter-program and inter-agency coordination continues to be part of the development of the Long-term ILRP.

1-46

See Comment Letter 1, Response 45 and Comment Letter 102, Response 10. The Central Valley Water Board is aware that a number of sources, not only irrigated agriculture, contribute to the coliform bacteria detected in the state's waters. The Board is and will continue to coordinate ILRP with its other water quality control efforts and programs.

1-47

See Comment Letter 116, Response 3.

1-48

The Central Valley Water Board believes it is appropriate that those interested in the proposed actions of growers in a coalition have an opportunity to provide input. The Central Valley Water Board intends that such involvement will not unduly delay prioritization of geographic areas, the approval and implementation of management plans, or monitoring plans. However, in the interest of transparency and ensuring accountability, the Board believes some public input is appropriate. Also, interested parties can petition the Central Valley Water Board decisions to the State Board; providing an opportunity for public comment and resolution of concerns can minimize petitions that delay program implementation and consume staff and public effort. It is not clear from the comment what the legal basis is for considering such involvement to be improper.

1-49

See Comment Letter 111, Response 40.

1-50

See Comment Letter 1, Response 34.

1-51

See Master Responses 3 and 4.

1-52

See Master Responses 3 and 4.

1-53

See Master Responses 1, 2, and 9.

1-54

See Comment Letter 1, Response 53; Comment Letter 111, Response 53 and Master Responses 14, 16, and 11.

1-55

See Master Response 4. The Long-term ILRP would not dictate the use of specific management practices; it would encourage practices that protect surface and groundwater quality from agricultural-related discharges. The decisions on management changes would remain in the hands of the individual farmer.

1-56

See Master Response 11.

1-57

See Master Response 11.

1-58

See Comment Letter 111, Response 56.

1-59

The comment support for the selection of Alternative 2 will be considered in the development of the Long-term ILRP.

In the evaluation of alternative consistency with program goals and objectives, California Water Code, NPS Policy, and Antidegradation requirements, Alternative 2 was not fully consistent with the NPS and Antidegradation policies. This inconsistency arises primarily because the alternative does not specify groundwater quality monitoring unless a local groundwater management plan is in place and substituted for coalition developed groundwater quality management plans (Draft PEIR, Appendix A, pages 107–116 and 165–168). Because local groundwater quality management plans do not exist in all areas of the Central Valley and the Board cannot require that local plans be established or modified, it is likely that there would be areas under Alternative 2 where groundwater quality monitoring would not be in place.

1-60

See Master Responses 4 and 17.

See Master Response 2.

Alternative 1 assumes that because discharges from irrigated agriculture are presently continuing to create water quality impacts, additional management practices would be required to be implemented; accordingly, there are additional costs for implementation of these practices under Alternative 1.

See Master Response 17.

1-61

The CEQA guideline discussed in the comment, Section 15131, allows discussion of economic and social effects where such effects cause a physical change in the environment, as was the case with Chapter 5, Environmental Impacts and Mitigation Measures, Section 5.9, Agriculture Resources. The Draft PEIR met the obligations of Sections 15131 and 15382.

1-62

See Master Response 17.

1-63

See Comment Letter 111, Response 61.

1-64

See Master Response 17.

1-65

See Comment Letter 111, Response 62.

1-66

See Master Response 17.

1-67

See Comment Letter 1, Response 61. Also see Master Response 17.

3.2.10 Letter 143—Nevada County Consolidated Fire District, Tim Fike, Fire Chief

Comment Letter IL143

Nevada County Consolidated Fire District
"Excellence in Emergency Service"
11329 McCourtney Road, Grass Valley, CA 95949
(530) 273-3158 FAX (530) 273-1780
nccfire@nccfire.com www.nccfire.com

July 6, 2010

Central Valley Regional Water Quality Control Board
11020 Sun Center Drive
Rancho Cordova, CA 95670

Re: Comments to EIR economic analysis of the Long Term Irrigated Lands Program (ILP)

Nevada County Consolidated Fire District (NCCFD) is the largest fire district in Nevada County, protecting over 150 square miles and 35,000 residents. The majority of the area has been identified by CAL FIRE as a Very High Hazard Severity Zone for wildland fire risk.

As the chief of NCCFD, I urge the CVR Water Quality Control Board to strongly consider any effort to reduce burdensome regulations on property owners who wish to irrigate their land. These irrigated greenbelts offer us a significant tactical advantage when combating our frequent urban-interface wildland fires. The greenbelts also offer firefighters a safety zone opportunity that otherwise would not exist. 143-1

Lastly, but of equal or more importance, it remains imperative you consider every opportunity to allow sustainable agriculture to thrive in our communities for the sake of the farmer/rancher the ongoing production of their trade and for the economic health of the community.

Sincerely,

Tim Fike
Fire Chief

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3.2.10.1 Responses to Letter 143

143-1

See Comment Letter 46, Response 3.

3.2.11 Letter 129—Penn Valley Fire Protection District, Gene Vander Plaats, Fire Chief

Comment Letter IL129

PENN VALLEY FIRE
PROTECTION DISTRICT

Fire Chief
Gene Vander Plaats
P.O. Box 180
Penn Valley, CA 95946
(530) 432-2630
Fax (530) 432-4561
pvfpd.chief@sbcglobal.net

Directors
Kurt Grundel, Chairperson
Randy Casto, Vice-Chairperson
Bill Neville, Director
Rick Nolle, Director
Bob Webster, Director
pvfpd.hughes@sbcglobal.net

August 2, 2010

RECEIVED
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CVRWQCB

Central Valley Regional Water
Quality Control Board
11020 Sun Center Drive
Rancho Cordova, Ca. 95670

RE: Comments to EIR economic analysis of the Long Tern Irrigated Lands Program (ILP)

Dear CVRWQCB:

The Penn Valley Fire Protection District covers 92 square miles in the southwest portion of Nevada County. Wildland fires are the greatest risk to lives, property and the environment.

Any steps taken to reduce the threat of a catastrophic wildland fire interfacing with homes and other structures is vital. One of the most practical and important actions that is very effective in reducing the risk if vegetation management. Irrigated lands accomplish that task and provide us with a break in the fuels and an opportunity to make a stand to stop a wildfire. 129-1

We ask that you provide the conditions that will allow farmers to continue to irrigate their land, providing them with an opportunity to support their families, provide the produce and meat for the citizens and, most importantly from our perspective, provide a greenbelt (safe zone) from where our firefighters can do their job safely.

Thank you for your consideration.

Respectfully,

Gene Vander Plaats
Fire Chief, PVFPD

PROTECTING OUR COMMUNITY WITH PRIDE

3.2.11.1 Responses to Letter 129

129-1

See Comment Letter 46, Response 3.

3.2.12 Letter 47—Plumas County Flood Control and Water Conservation District, Brian L. Morris, General Manager

PLUMAS COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

Comment Letter IL47

September 27, 2010

ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Dear Ms. Smith:

Thank you for the opportunity to comment on the Draft Programmatic Environmental Impact Report for the Irrigated Lands Regulatory Program (ILRP).

The County of Plumas previously submitted comments dated April 13, 2010, noting the diversity of water quality conditions and problems across the Central Valley watershed and asking that the ILRP be implemented in a manner that is appropriate to the situation in each particular area and groundwater basin. We are pleased that Alternative 2 in the Draft EIR presents a tiered approach to the ILRP based on risk assessment and provides a framework that can be used to establish an effective program that makes the best use of both private and public funds to improve and protect water quality. We encourage the Regional Board to move forward with Alternative 2 as the basis for the long-term program. 47-1

To effectively address our general concerns and obtain the benefits of a tiered approach, elemental aspects of the program will need further consideration and definition, which seems to be acknowledged by both regional board members and staff: 47-2

- How exactly will the lines be drawn between the different risk-based tiers?
- Given the current state of the economy and the strained resources of both local and state agencies to provide assistance and coordination that would otherwise support the most effective program, what is the timeline for implementation and how will priorities be established? 47-3
- How can the ILRP benefit from synergies with programs of the Department of Water Resources, including IRWM and CASGEM? 47-4
- What are the equitable considerations and what are the consequences for maintaining the economic viability of agriculture in higher-elevation watershed areas where the economic returns are relatively "low value" and the agricultural practices are relatively low-impact and low-risk? 47-5

Tiered Approach

The staff report accompanying the EIR includes Figure 23 on page 161 with an example of a prioritization scheme for requiring different levels of surface and groundwater monitoring based upon known or potential water quality problems. The lesser level of monitoring requirements is based upon an area having "no irrigated agriculture related water quality problems." Depending 47-6

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upon how such a standard is interpreted, it could create a "zero tolerance" requirement that would eliminate any practical distinction offered by the multi-tiered approach.

Unless management plans have been required as a result of exceedances of water quality objectives (or water quality impairments caused by agricultural operations have resulted in 303(d) listings), Tier 1 should be the appropriate monitoring level. Beyond that, where water quality is not in a state where beneficial uses are impaired, trends in water quality should be analyzed in each specific situation to determine an appropriate response based on the likelihood that the trend will actually lead to degradation of beneficial uses. 47-6 cont'd

Implementation Timeline

A timeline for the long-term ILRP should consider prioritizing implementation actions by balancing the needs of public health and the environment against current economic conditions and the financial challenges currently faced by both private and public participants. It is understandable that where practices on irrigated lands are significantly impacting the quality of drinking water or habitats for sensitive species, the most immediate practicable implementation timeline would be desired. However, in apparently low-risk regions where significant water quality impairments have not been identified or where there is a paucity of reliable data, additional implementation time would allow collaboration with stakeholders that may still be on the periphery of the irrigated lands program, such as local environmental health agencies, municipally-focused groundwater management programs, and the groundwater programs of the Department of Water Resources. 47-7

Simply being able to budget costs over two years instead of three or over three years instead of five can enable local agencies to participate in collaborative programs from which they may otherwise have to refrain. And without the ongoing participation of those agencies, the ILRP program will lose data, expertise, and financial resources that would otherwise make the program more efficient and more effective in the long run. In the case of the County of Plumas, our workforce has been reduced from over 450 employees in 2005 to less than 370 today – a reduction of nearly 20 percent. While we look toward an economic recovery that is now projected for California in 2012, we would be much more optimistic about engaging in coordination and support with the irrigated lands program if we could look to working over a longer time period. 47-8

That is to say nothing of the burden the ILRP could place on private landowners during these difficult economic times. The EIR identifies some loss of agricultural resources as an unavoidable impact of the program. Given the current economy, the sooner the program is implemented the more likely it is that we will see greater failure or abandonment of agricultural operations. To the extent those losses result in loss of open space and habitat and in conversion to uses that have other water quality impacts, an irrigated lands program that induces conversion seems to be at cross-purposes with the stated program goals. 47-9

Coordination with Department of Water Resources Programs

Another consideration in establishing an implementation timeline should be the opportunity to coordinate with ongoing developments in the Integrated Regional Water Management program (IRWM) and the California Statewide Groundwater Elevation Monitoring program (CASGEM). 47-10

2

CASGEM establishes new requirements for local agencies to implement comprehensive groundwater elevation monitoring programs against the threat of losing eligibility for all water-related financial assistance from the State. In the Upper Feather region we are in the process of surveying local agencies to determine existing groundwater monitoring practices for both water elevations and water quality. Our next steps will be to determine lead agencies in each of our groundwater basins, identify data gaps, and implement a comprehensive groundwater monitoring and management program. To the extent this regional program can help efficiently address ILRP needs (even if it is to only verify that there are no water quality issues), it could reduce the financial burden on agricultural landowners and increase the prospects for continued economic viability.

47-10 cont'd

The Prop. 50 phase of the IRWM program was initiated around the same time as the initial push of the ILRP. In the Feather River region, we ended up with two groups of interests working on parallel tracks when both should have been working hand in hand. Fortunately, in Sierra Valley, our largest groundwater basin, the local groundwater management agency had the foresight to include an inventory and capping project for old and abandoned wells as part of a Prop. 50 grant we obtained. That kind of opportunity is exactly the type upon which the ILRP should capitalize.

With the Prop. 84 phase of the IRWM program now underway, the ag waiver coalition in our region has become a member of the regional water management group. We are working together to incorporate ILRP needs into our regional planning process and to extend previous successful efforts to use available funds to advance BMPs on irrigated lands.

47-11

However, for the ILRP to gain the full benefits that may be achieved through working with regional water management groups, including efficiencies of coordinated planning and monitoring activities, the stately pace of the IRWM program must be considered. Prop. 50, which was approved by the voters in 2002, has only recently begun to see money put to work on the ground. For Prop. 84, which was approved in 2006, the earliest that even planning funds will be available will be well into 2011.

Timelines for achieving ILRP benchmarks that do not consider the status of these other ongoing processes will force agriculture to fend for itself when opportunities for coordination, assistance, and efficiency are coming over the horizon.

High-Elevation Watersheds

A final important consideration is the special combination of factors that define conditions in the high-elevation watersheds like those of the Upper Feather River region, where most of the irrigated lands are found between 3,500 and 5,000 feet in elevation.

47-12

The relatively low-value-per-acre agricultural activities identified in the EIR's economic analysis are the predominant uses of irrigated lands in the Upper Feather River region. To the extent program fees are applied on a per-acre basis, the relative economic burden on agricultural operations is only increased for the people in our region.

3

On the other hand, the upper watersheds have the benefit of generally good water quality – both for surface water and groundwater. As part of the information item presented to the Regional Board on September 22, there was one presentation focused on Environmental Justice that included three maps of the Central Valley watershed: one showed wells exceeding the nitrate MCL; one showed wells exceeding 50% of the nitrate MCL; and one showed wells with pesticide contamination. Not one of those maps reflected a single well in the Upper Feather River watershed, including Plumas, Sierra, and Lassen Counties. This general picture is confirmed by the Plumas County Division of Environmental Health, which monitors water quality in public water supply wells and sees no such wells with nitrate levels that exceed or even come close to the MCL.

47-13

Where existing water quality data does not indicate any significant problems related to irrigated lands, and where acreage-based program fees already impose disproportionate burdens, it does not seem reasonable or equitable to require extensive monitoring programs in order to "prove a negative."

Conclusion

Thank you again for the opportunity to comment further on the development of the ILRP and for advancing the framework of a tiered approach to implementation. We look forward to seeing the details of the next steps of the program and to engaging in the stakeholder and CEQA processes that will accompany them.

Sincerely,

Brian L. Morris
General Manager

4

3.2.12.1 Responses to Letter 47

47-1

The support for Alternative 2 will be considered in development of the Long-term ILRP.

47-2

Alternatives 2, 4, and 6 all include mechanisms for prioritizing requirements for areas and/or operations. These alternatives provide the general programmatic-level framework for prioritization (e.g., Alternative 6's Priority Factors, page 150, Draft PEIR, Appendix A). Site-specific and other waste specific information have not been considered in detail. It would be premature to establish priority level (tier), specific monitoring frequencies (groundwater/ surface water), locations, and constituents at this stage without first considering the types of waste discharge (pesticides used, pathways of waste movement, etc.), local conditions, existing water quality, existing monitoring programs, existing wells, and other local factors. Depending on the alternative chosen by the Central Valley Water Board, these site-specific considerations will be made during development of ILRP WDRs and waivers and subsequent water quality monitoring and management plans.

47-3

See Comment Letter 47, Response 2. The Central Valley Water Board is cognizant of the present regional economic climate. Development of implementation timelines and priorities for the Long-term ILRP will include consideration of this comment.

Within the Draft PEIR, only Alternative 6 includes a specific implementation timeline of 3 years (Draft PEIR, Appendix A pages 143–144). Under Alternative 6, implementation priorities would be established using the factors in Table 22.

47-4

See Comment Letter 47, Response 2 and Comment Letter 1, Response 45.

47-5

See Comment Letter 47, Response 2.

The Draft ILRP Economics Report considers effects of Long-term ILRP alternatives on the value of agricultural production. The results of the Draft ILRP Economics Report have been considered in developing the tiering system of Alternative 6. The Central Valley Water Board will further consider requirements that are suitable to low-value/ low-risk operations in the development of the Long-term ILRP.

47-6

The standard for "no irrigated agriculture problems" as stated in Figure 23 (Draft PEIR, Appendix A, page 161) is a general characterization. Under Alternative 6, the Priority Factors (Draft PEIR, Appendix A, pages 150–151) would be used to establish tier levels for geographic areas. These factors are designed to establish priorities to address exceedances (protect beneficial uses); address degradation of high quality waters (Antidegradation Policy); and prevent future exceedances (vulnerability). Also see Comment Letter 1, Response 23.

The Draft PEIR, Appendix A (page 151) provides an example of how the priority system would work that is consistent with the suggestion that Tier 1 areas should be those not under management plans/303(d) listings. However, the suggestion that degradation should only be considered where the trend will actually lead to "degradation of beneficial uses" is not consistent with the Antidegradation Policy, which generally requires that operations implement BPTC in the event that the waste discharge may cause degradation of a high quality water.

47-7

The Central Valley Water Board has attempted to balance all considerations (health, environment, economic) involved by proposing Alternative 6's tiered program, which would focus most resources on areas where higher priority water quality impacts have been identified. The Board will continue to consider these recommendations in the development of the Long-term ILRP.

47-8

This suggestion will be considered by the Central Valley Water Board in continued development of the Long-term ILRP.

47-9

See Draft PEIR, Appendix A pages 122–129 and 170–171 for an evaluation of each alternative with respect to meeting Goal 3, *"Maintain the economic viability of agriculture in California's Central Valley."*

47-10

This recommendation will be considered in the development of the Long-term ILRP.

47-11

The recommended Long-term ILRP will be instituted through the development of WDRs and waivers (orders) for geographic areas and commodity groups throughout the Central Valley. These orders would not be developed until the Central Valley Water Board considers and certifies the Final PEIR. The Final PEIR will be considered, and may be certified, at the April 6/7/8 2011 Board hearing. ILRP implementation orders would be developed following the Board's certification of the Final PEIR (at the earliest in 2011/2012).

As described in the comment, planning funds (Proposition 84/50), are anticipated to be available in 2011, at the earliest. This timing would be expected to coincide with the implementation of ILRP orders in 2011/2012 and would allow coordination and consideration of funding when monitoring and management plans are developed.

47-12

See Master Response 17.

47-13

The priority systems described in Alternatives 2, 4, and 6 are intended to help reduce ILRP costs for areas and operations that do not have water quality problems, including lesser requirements for

monitoring and management. High priority areas and operations—areas with water quality problems where agriculture is a contributing factor—would have additional monitoring and management requirements intended to address and monitor progress towards solving the water quality concern.

3.3 Non-Governmental Organization Comments and Responses

This section contains comment letters received from non-governmental organizations and responses to those comments.

Table 3-4. List of Comment Letters from Non-Governmental Organizations

Letter	Organization	Comment Letter Signatory
4	Butte County Farm Bureau	Colleen M. Cecil, Executive Director
36	Butte County Farm Bureau	Colleen M. Cecil, Executive Director
90	California Cattlemen's Association	Tom Talbot, DVM, President
92	California Farm Bureau Federation	Kari E. Fisher, Associate Counsel
96	California Farm Bureau Federation et al.	Theresa "Tess" A. Dunham, Attorney, Somach Simmons & Dunn
137	California Farm Bureau Federation et al.	Theresa "Tess" A. Dunham, Attorney, Somach Simmons & Dunn
94	California Grape and Tree Fruit League	Christopher Valadez, Director of Environmental and Regulatory Affairs
42	California Land Stewardship Institute	Laurel Marcus, Executive Director
49	California Rice Commission	Tim Johnson, President and CEO, and Roberta L. Firoved, Industry Affairs Manager
104	California Sportfishing Protection Alliance and California Water Impact Network	Michael R. Lozeau, Lozeau Drury LLP and Bill Jennings, CSPA
105	California Sportfishing Protection Alliance and California Water Impact Network	Michael R. Lozeau, Lozeau Drury LLP and Bill Jennings, CSPA
110	California Urban Water Agencies	Ernesto A. Avila P.E., Executive Director
123	Community Water Center	Laurel Firestone, Co-Director and Attorney at Law; Clean Water Action, Jennifer Clay, Water Policy Analyst; California Rural Legal Assistance Foundation, Martha Guzman, Legislative Advocate; Food and Water Watch, Elanor Starmer, Western Region Director; Pacific Institute, Eli Moore, Senior Research Associate; Environmental Justice Coalition for Water, Debbie Davis, Legislative Analyst; and California Rural Legal Assistance, Inc., Phoebe Seaton, Attorney at Law
100	El Dorado County Agricultural Water Quality Management Corporation	Carolyn Mansfield, President
78	El Dorado County Farm Bureau	Merv de Haas, President
126	Glenn County Farm Bureau	Jim Jones, President
125	Kings County Farm Bureau	Tyler Bennett, Director
44	North Eastern California Water Association	Roderick McArthur, Vice President
97	Northern California Water Association/ Sacramento Valley Water Quality Coalition	Bruce Houdesheldt, Director, Regulatory Affairs

Letter	Organization	Comment Letter Signatory
115	Pacific Institute	Eli Moore, Senior Research Associate, Eyal Matalon, and Matt Heberger
43	Pesticide Watch	Dana Perls, Community Organizer
113	Sacramento Amador Water Quality Alliance	Rebecca Waegell, Coordinator
106	San Joaquin County and Delta Water Quality Coalition	Mike Wackman
124	San Joaquin County and Delta Water Quality Coalition	Mike Wackman
109	San Joaquin County Resource Conservation District	Molly Watkins, President
88	San Joaquin River Exchange Contractors Water Authority	Steve Chedester, Executive Director
117	Shasta County Cattlemen's Association	Steve Moller, President
89	South Delta Water Agency	John Herrick
111	Southern San Joaquin Valley Water Quality Coalition	David Orth, Steering Committee Coordinator
112	Southern San Joaquin Valley Water Quality Coalition	David Orth, Steering Committee Coordinator
136	Southern San Joaquin Valley Water Quality Coalition	David Orth, Steering Committee Coordinator
12	Tulare County Farm Bureau	Patricia Stever, Executive Director
145	Upper Feather River Watershed Group	Carol Dobbas, Executive Director and Russell Reid, Chairman
33	Yolo County Farm Bureau Education Corporation	Chuck Dudley, President

3.3.1 Letter 4—Butte County Farm Bureau, Colleen M. Cecil, Executive Director

Comment Letter IL4

From: Colleen Cecil [buttecfb@sbcglobal.net]
Sent: Thursday, 05 August 2010 15:24
To: ILRP Comments; awlaputz@waterboards.ca.gov
Cc: 'Ned Coe'; tcfb@sbcglobal.net; 'Glenn County Farm Bureau'; 'Danielle Coleman'; ccfb1 @frontier.com; 'Gosselin, Paul'; slambert@buttecounty.net; Richard Price; 'Ryan Schohr'; Rocky Donati; Stacy Gore
Subject: ILRP Public Comment Workshop

Dear Central Valley Water Board –

The Butte County Farm Bureau has opposition and concern with the Public Meeting being held to take comments on the Irrigated Lands Regulatory Program Draft PEIR scheduled to take place on Friday, September 10 from 5pm-8pm. It is unfortunate that each of these four meetings are scheduled to directly conflict with the ongoing agricultural harvests that will be taking place throughout the Central Valley in September. However, we are quite frustrated with the meeting, scheduled to take place in Chico, be held on a Friday night. This decision seems out of character for traditional business practices and as previously mentioned, will also interfere with ongoing agricultural harvests, those being rice, almond and walnut harvests to name a few, in Butte and surrounding counties. 4-1

We kindly ask that the Chico meeting date and time be changed so as to not be hosted on a Friday evening. We realize that the timing will continue to conflict with harvest but feel there is a greater chance for attendance if the meeting is not held on a Friday night.

Thank you in advance for your attention and consideration of the above request.
Best Regards,
Colleen Cecil

Colleen M. Cecil
Executive Director
Butte County Farm Bureau
2580 Feather River Blvd • Oroville, CA 95965
(530) 533-1473 (phone) • (530) 370-3879 (mobile)
(530) 533-6508 (fax)
www.buttefarmbureau.com

1

3.3.1.1 Responses to Letter 4

4-1

The Central Valley Water Board will consider this concern in scheduling any future ILRP public meetings.

3.3.2 Letter 36—Butte County Farm Bureau, Colleen Cecil, Executive Director

BUTTE COUNTY FARM BUREAU
Serving Agriculture For More Than 80 Years

Comment Letter IL36

September 10, 2010

ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Ms. Smith,

The Butte County Farm Bureau (BCFB) appreciates the opportunity to submit comments on the Central Valley Regional Water Quality Control Board Irrigated Lands Regulatory Program (IRLP) Draft Programmatic Economic Impact Report (PEIR) and Economic Analysis.

The Butte County Farm Bureau is a non-profit membership organization dedicated to the advocacy of our 1900 farm, and ranch families and consumer members whose priorities are to protect and enhance agriculture in our local community and in California.

We have reviewed the PEIR and the five outlined alternatives. BCFB believes that alternatives 2, 3, 4 and 5 will present additional increased and unnecessary regulatory burden on Butte County farmers. Furthermore, as described in the document, these same plans have the potential to increase costs, all of which will be funded by fees paid by farmers, between $4,000,000 and $66,000,000 – an increase of 97% from the current program. 36-1

It should also be noted that the Staff Preferred Alternative was not evaluated in the PEIR and so we are unable to evaluate the alternative's impacts on agriculture in Butte County including increased and unnecessary regulatory burdens and economic costs. 36-2

The Economic Analysis estimates it will cost a farmer $5,000 to characterize surface and groundwater quality for low impact areas. This does not include cost for water quality testing. This particular figure represents a disproportional cost to smaller farmers. In this current depressed economic environment, these costs, as well as those mentioned above, are unrealistic and not warranted to maintain surface water monitoring.

Through discussion with other agricultural organization, including the California Farm Bureau Federation, it is important to bring attention to the Economic Analysis. Monitoring costs in this portion of the document are grossly underestimated. Furthermore, these costs vary between regions of California further varying the costs associated with the program. This makes is extremely difficult to really get a clear understanding of what potential cost will be to farmers. 36-3

BCFB believes that the work of monitoring and reporting needs to remain with the Coalitions. These organized groups best understand the farmers with whom they work with and are best equipped to maintain reporting to the CVRWQCB. There is no need to create a new system of procedures and 36-4

2580 Feather River Boulevard • Oroville, California 95965 • (530) 533-1473 • Fax: (530) 533-6508 • Email: buttecfb@sbcglobal.net

policies for reporting and organization when the current system in place works and has proven effective. It would be financially prudent to make the current system of coalitions work to accomplish the Goals and Objectives of the ILRP. It is our opinion that is recommendation can best be accomplished by adopting alternative number 2 as presented in the PEIR. 36-4 cont'd

Again, we appreciate the opportunity to submit our comments on the IRLP. Should you have additional questions, please do not hesitate to contact us at (530) 533-1473 or at colleen@buttefarmbureau.com.

Sincerely,

Colleen Cecil
Executive Director

3.3.2.1 Responses to Letter 36

36-1

Support for the current ILRP will be considered in the development of the Long-term ILRP.

36-2

See Master Response 3.

36-3

See Master Response 17.

36-4

The comment's support for Alternative 2 and maintaining the coalition-run regional monitoring program will be considered in the development of the Long-term ILRP.

3.3.3 Letter 90—California Cattlemen's Association, Tom Talbot, DVM, President

CALIFORNIA CATTLEMEN'S ASSOCIATION
1221 H STREET • SACRAMENTO, CALIFORNIA • 95814-1910
SERVING THE CATTLE INDUSTRY SINCE 1917
PHONE: (916) 444-0845
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www.calcattlemen.org

Comment Letter IL90

September 27, 2010

Mrs. Katherine Hart
Chair
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

Sent via email: IRPcomments@ICFI.com

RE: Draft Program Environmental Impact Report for the Irrigated Lands Regulatory Program Long-Term Program Development

Dear Madam Chair,

The California Cattlemen's Association (CCA) appreciates the opportunity to comment on the Draft Program Environmental Impact Report for the Irrigated Lands Regulatory Program Long-Term Program Development. CCA represents ranchers and beef producers who own or manage over 34 million acres of California rangelands, including many ranchers operating in the Central Valley region who participate in the current Irrigated Lands Regulatory Program, and are ardent stewards of the water and natural resources in their care.

Water and other resources are scarce and the ability to economically graze livestock becomes ever more challenging with new regulations adopted by local authorities, the state and federal government. As such, the renewal of the Irrigated Lands Regulatory Program greatly impacts ranchers operating on irrigated pasture within the Central Valley region. 90-1

Independent of the regulation put in place in 2005, ranchers already employ range and grazing practices to protect water quality and manage rangelands to ensure riparian areas remain ecologically healthy. Management of grassland as irrigated pasture, based on the best available science and on-going research developed by the University of California Cooperative Extension and Natural Resources Conservation Service, effectively filters irrigation water and stormwater and reduces nutrient loading. 90-2

These management practices embody what ranchers consider good range management and are heavily utilized by beef producers throughout California. Ranchers depend on land and water resources to raise livestock year after year, and subsequently work to sustain these resources to ensure adequate forage and water is available for continued livestock production.

BEEF USA

California Cattlemen's Association Comments
Page 2

Ranchers are faced with an economic burden to comply with the Irrigated Lands Regulatory Program even though sampling to date has demonstrated that their operations have had no significant effect on water quality. Despite these results, actions taken by Regional Board staff in the past have presumed that the presence of cattle and grazing on irrigated pasture results in a discharge of waste that affects water quality. Additionally, CCA opposes the idea that the natural flow of stormwater from un-irrigated land is presumed to constitute a discharge of waste to the waters of the state and has concerns that irrigation of any portion of a parcel has rendered entire parcels – including un-irrigated sections - subject to the program's authority and presumptions. 90-3

Future actions and subsequent policy development should avoid the presumption that water running off of irrigated pasture inherently constitutes a discharge of pathogens or other constituents of concern. As stipulated by Porter-Cologne, only activities that discharge or propose to discharge wastes that affect water quality must be covered by regulatory mechanisms authorized by the California Water Code.

Pursuing enforcement actions or sending 13267 letters based on the broad assertion that, by irrigating, a landowner is also discharging and therefore subject to restrictions and compliance under the program is inconsistent with law. Section 13267 of the Water Code specifically states that "in requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports." 90-4

Requiring all irrigators to comply with the program without the Regional Board providing sufficient evidence inappropriately shifts the burden of proof to the farmer or rancher where state law indisputable requires the Regional Board to present evidence of a discharge prior to requiring compliance under the program. This is an incorrect interpretation of the law and the Regional Board should take action, under the administration of program and in current and future enforcement activities, to recognize that not all irrigators within the program area discharge and thus not all are subject to the regulation.

Ranchers work to ensure the efficient use of irrigation water and seek to ensure that irrigation runoff does not occur for ecological reasons and because the inefficient use of water results in higher input costs. In instances that runoff does occur, monitoring has demonstrated that grazing livestock on irrigated pasture is not likely to cause exceedances of water quality standards. 90-5

In light of the concerns expressed above, CCA is interested in working with the Regional Board to explore the possible establishment of a reduced threshold, based on the minimal discharge risk posed by grazing, that would be available to irrigated grazers who believe activities on their operation are resulting in a discharge and choose to enroll. Such a category for lower risk enrollees would reduce monitoring frequencies and reduce compliance and other overhead costs that should then result in lower fees charged by coalitions or the Regional Board. 90-6

While this potential option will not alleviate all regulatory burdens placed on ranchers to comply with the Irrigated Lands Program, it might be a step in the right direction that would recognize the minimal discharge risk of livestock grazing on irrigated pasture. Consideration of such a request is further warranted because ranchers are not significant users of pesticides, fertilizers and other constituents of concern on non-cropland used for irrigated pasture.

Ranchers and CCA members have also expressed serious concerns that increasing coalition fees to meet current program requirements has created an economic burden that is increasingly reducing the ability for ranchers to balance profitability margins. Because economic return per-acre from beef production on 90-7

rangeland and irrigated pasture is typically much lower than other irrigated agricultural uses, ranchers are more significantly impacted by these per-acre fee adjustments.

Many coalitions and the state have commenced discussions about increase fees under the current program, notwithstanding the additional fees that might arise from including groundwater in the long-term program, which will also likely drive coalitions to raise fees to cover new monitoring and reporting costs for study of unknown water quality impacts. CCA opposes fee changes that would result in higher costs to landowners under the program. 90-7 cont'd

CCA is concerned with any policy asserting that all agricultural lands or agricultural operations operating on irrigated lands discharge to groundwater. This a general and open-ended assertion by the Regional Board made with no plausible justification. Measuring and seeking to improve groundwater quality throughout the region is an extremely complex issue in its own right, let alone identifying the source of groundwater impairment. The potential for irrigated pasture to discharge to groundwater is even less likely than to surface water and it should not be targeted as a source of groundwater degradation. 90-8

The Regional Board's intention to require all operations of irrigated lands to comply with the regulation, whether it is surface or groundwater, expands regulatory authority beyond that authorized by law. For these reasons, CCA would strongly encourage the Regional Board to not include groundwater as part of the Long-Term Irrigated Lands Program at this time. 90-9

Once again, CCA appreciates the opportunity to comment on the draft Environmental Impact Report for the Long-Term Irrigated Lands Regulatory Program and would request that the Regional Board consider our comments in the development of the final report. We also strongly encourage staff to thoroughly review comments submitted by individual ranchers and take their concerns and suggestions into account when crafting the final regulatory package that will be submitted to the governing board for approval.

Should you have any questions or CCA can be of any assistance please don't hesitate to contact Justin Oldfield in the CCA office.

Sincerely,

Thomas D. Talbot

Tom Talbot, DVM
President

cc: Members of the Central Valley Regional Water Quality Control Board

3.3.3.1 Responses to Letter 90

90-1

The Central Valley Water Board agrees that those irrigated pasture lands that are managed to minimize or eliminate irrigation runoff should have minimal or no impact on water quality. The Board will consider this in the development of the Long-term ILRP.

Waste discharges from unirrigated agricultural lands are not within the scope of the Long-term ILRP.

90-2

See Comment Letter 90, Response 1.

90-3

See Comment Letter 90, Response 1.

90-4

See Comment Letter 1, Response 5. Also see Master Response 12.

90-5

See Comment Letter 90, Response 1.

90-6

The suggestion of a reduced threshold for grazing operations will be considered in the development of the Long-term ILRP, especially in situations where ranchers use minimal or no pesticides, fertilizers, or other constituents of concern and effectively prevent their cattle from impacting waters of the state.

90-7

See Master Response 17.

90-8

See Master Response 12 and Comment Letter 37, Response 1.

90-9

See Master Response 12 and Comment Letter 50, Response 14.

3.3.4 Letter 92—California Farm Bureau Federation, Kari E. Fisher, Associate Counsel

Comment Letter IL92

CALIFORNIA FARM BUREAU FEDERATION
NATURAL RESOURCES AND ENVIRONMENTAL DIVISION
2300 River Plaza Drive, Sacramento, CA 95833-3293 • Phone (916) 561-5665 • Fax (916) 561-5691

Sent Via USPS & E-Mail
ILRPcomments@icfi.com

September 27, 2010

ILRP Comments
Ms. Megan Smith
630 K St., Ste. 400
Sacramento, CA 95814

Re: Irrigated Lands Regulatory Program Comments on the Draft PEIR

Dear Ms. Smith:

The California Farm Bureau Federation is a non-governmental, non-profit, voluntary membership California corporation whose purpose is to protect and promote agricultural interests throughout the state of California and to find solutions to the problems of the farm, the farm home, and the rural community. Farm Bureau is California's largest farm organization, comprised of 53 county Farm Bureaus currently representing approximately 81,000 members in 56 counties. Farm Bureau strives to protect and improve the ability of farmers and ranchers engaged in production agriculture to provide a reliable supply of food and fiber through responsible stewardship of California's resources.

Farm Bureau appreciates the opportunity provided by the Central Valley Regional Water Quality Control Board ("Regional Board") to participate in the Stakeholder Advisory Workgroup process to develop alternatives and partake in discussions regarding the development of the Long Term Irrigated Lands Regulatory Program ("LT-ILRP"). Farm Bureau further appreciates the opportunity to submit comments on the Regional Board's LT-ILRP Draft Program Environmental Impact Report ("Draft PEIR"), the Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program ("Economic Analysis"), and the Recommended Program Alternative ("RPA") contained within Appendix A. Farm Bureau has numerous reservations and comments about the PEIR, Economic Analysis, and Staff Recommended Program Alternative as currently drafted and offers the following specific comments contained

herein. These comments are in addition to the comments contained in a joint agricultural coalition letter submitted on September 27, 2010.[1]

I. Draft Program Environmental Impact Report

A. Failure to Analyze the Recommended Program Alternative Under CEQA

The California Environmental Quality Act ("CEQA") was enacted to address concerns about environmental quality in the State of California. CEQA establishes processes and procedures to ensure that California agencies complete an environmental analysis and consider and disclose to the public the environmental impacts of a proposed project. (Pub. Resources Code, §§ 21000 et seq; Cal. Code Regs., tit. 14, § 15000 et seq.) CEQA's statutory framework sets forth a series of analytical steps intended to promote the fundamental goals and purposes of environmental review—information, public participation, mitigation, and governmental agency accountability. (Cal. Code Regs., tit. 14, § 15002.) Specifically, the basic purposes of CEQA review include: informing governmental decision makers and the public about the potential significant environmental effects of proposed activities; identifying ways that environmental damage can be avoided or significantly reduced; requiring changes in projects through the use of alternatives or mitigation measures when feasible; and disclosing to the public the reasons why a project was approved if significant environmental effects are involved. (See Pub. Resources Code, §§ 21001, 21001.1, 21002, 21003, 21006, 21064.)

The analysis of a project required by CEQA usually takes the form of an Environmental Impact Report which describes and evaluates the significant environmental effects of a proposed project, identifies alternatives, and discusses ways to reduce or avoid the possible environmental impacts. Unfortunately, the Draft PEIR contains numerous substantive and procedural CEQA flaws and fails to specifically and properly analyze the environmental impacts associated with the five alternatives as well as the RPA.[2] 92-1

Although an EIR need not consider all potential alternatives to the project and instead need only to consider a reasonable range of alternatives, the alternative preferred and recommended by the agency must be considered and examined within the EIR. (See Cal. Code Regs., tit. 14, § 15226.6(a).) Further, the EIR must contain sufficient information about *each alternative* to permit an evaluation of the relative merits of the alternatives and the project. (*Ibid.*) Here, the Draft PEIR analyzes five program alternatives. Within Appendix A, a separate document apart from the Draft PEIR, the 92-2

[1] Various agricultural organizations, including Farm Bureau, coalitions, and water districts submitted a joint agricultural coalition letter expressing significant comments and concerns on the Draft Program Environmental Impact, Economic Analysis, and Staff RPA.

[2] Please see the joint agricultural coalition letter for further in-depth review of CEQA compliance concerns. 92-1 cont'd

Staff Report contains a section describing the Staff Recommended Program Alternative.[1] This RPA is not one of the five alternatives analyzed within the Draft PEIR. Rather, it is a separate alternative. Although it contains a conglomeration of some elements presented in the five alternatives that are analyzed in the Draft PEIR, it also contains entirely new program elements and new combinations of existing elements. These new elements and new combinations have yet to receive CEQA review. Without proper evaluation of what would result when those elements are combined with each other, as they would be if "Alternative 6" or the Staff RPA alternative were to be selected for implementation, the Draft PEIR is substantively and procedurally flawed and the fundamental goals of CEQA are not met.

92-2 cont'd

B. The Draft PEIR May Conflict with CEQA Functional Equivalency of the State's Pesticide Regulatory Program

The Draft PEIR fails to analyze the interplay with and the duplicity between the State's pesticide regulatory program and its proposed requirements. Prior to a pesticide being registered for agricultural use, a CEQA functional equivalent EIR must be performed. (See Cal. Code Regs., tit. 14, § 15251(i), "the pesticide regulatory program administered by the Department of Pesticide Regulation and the county agricultural commissioners insofar as the program consists of (1) The registration, evaluation, and classification of pesticides" has been certified as a review process functionally equivalent to a CEQA EIR.) The Department of Pesticide Regulations' ("DPR") actions in reviewing pesticides do not constitute a project in the classical CEQA context – there is not a one time environmental review of a specific action or activity that has a specific geographical location or temporal limit. Rather, DPR's regulatory scheme ensures continuous evaluation of the environmental impacts of registered pesticide products. Additionally, in completing the CEQA functional equivalency document, DPR is required to consider the full and reasonably foreseeable environmental context of its actions. The regulatory scheme also provides for re-registration and re-evaluation to ensure that the continued use of the pesticide is not going to have a significant effect on the environment.

92-3

Within the Central Valley region, farmers and ranchers use various products when growing food and fiber. Farmers and ranchers must comply with all applicable laws, regulations, and specific pesticide use requirements, complete pesticide use reporting, and fulfill educational and training requirements. Further requirements are mandated if a restricted material is used and/or the land is located within a groundwater management area. Since CEQA functional equivalency has occurred to allow those pesticides to be

[1] The California Supreme Court has stated that essential elements of CEQA analyses cannot be buried within the appendices. (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412.) Not only should the Staff RPA be placed within the Draft PEIR, the Staff RPA should also undergo full CEQA analysis as a sixth alternative and be fully compared to the five alternatives currently within the PEIR.

used in those areas, the growers should not be now held liable under the LT-ILRP if those pesticides are detected in groundwater. 92-3 cont'd

C. Use of the Draft PEIR as a "Program" EIR is Limited and Cannot be Used for Future Waste Discharge Requirements

Under the CEQA Guidelines, a program EIR is an EIR prepared for a series of actions that can be characterized as one large project and are related in a specific manner. (Cal. Code Regs., tit. 14, § 15168(a).) An agency may use a program EIR when it needs to consider broad environmental issues for a series of actions at an early state of the planning process. (Id., § 15168(b)(4).) However, when conducting a series of actions at a later date, an agency may only rely on the program EIR if it contains a thorough analysis of the relevant environmental issues and evaluates the effects of the entire program in a specific and comprehensive manner. (Id., § 15168(c)(5).) As stated above, the Draft PEIR does not evaluate the Staff RPA at all. 92-4

Additionally, the Draft PEIR does not evaluate the actual waste discharge requirements ("WDRs") that will be developed in the future. The adoption of the eight to twelve WDRs, as discussed in Staff's RPA, is a "project," as defined in CEQA. (Pub. Resources Code, § 21065.) CEQA and its requirements apply to discretionary projects proposed by public agencies. (*Id.*, § 21080(a).) The Regional Board's approval of WDRs is a discretionary decision, and therefore it is subject to CEQA. Thus, when the Regional Board develops and adopts the eight to twelve individual WDRs, it will be required to again consider the environmental impacts associated with the individual WDRs. If the Regional Board intends to rely on the Draft PEIR for its determination of environmental impacts associated with the WDRs, such reliance will be improper since the Draft PEIR provides insufficient analysis of the entire program as a whole and its environmental impacts.

D. CEQA Limits the Scope of Mitigation Measures That Can Be Required

Section 5.7.6 of the Draft PEIR, "Mitigation and Improvement Measures," proposes mitigation measures for various vegetation and wildlife resources that could be affected by normal farming practices. These mitigation measures that would require avoidance of sensitive biological resources, riparian areas, and wetlands, require additional CEQA review if such resources cannot be avoided, and would compel agricultural landowners to conduct a U.S. Army Corps of Engineers' approved delineation of affected wetlands "prior to implementing any management practice that will result in the permanent loss of wetlands." Such mitigation measures are overreaching. 92-5

"A lead agency for a project has authority to require *feasible changes* in any or all activities involved in the project in order to substantially lessen or avoid significant effects on the environment, consistent with applicable constitutional requirements such as

the "nexus" and "rough proportionality" standards established by case law (*Nollan v. California Coastal Commission* (1987) 483 U.S. 825, *Dolan v. City of Tigard*, (1994) 512 U.S. 374, *Ehrlich v. City of Culver City*, (1996) 12 Cal. 4th 854.)." (See Cal. Code Regs., tit. 14, § 15041(a), emphasis added.) However, CEQA confers no independent grant of authority to impose mitigation measures on a project. Mitigation measures, such as the ones described above, go beyond the powers conferred by law to the Regional Board and are legally infeasible. (Pub. Resources Code, § 21004; Cal. Code Reg., tit. 14, § 15040.)

92-5 cont'd

II. Draft Staff Report

A. The Draft Staff Report Inappropriately Categorizes All Irrigated Agriculture as Waste Dischargers to Surface Water and Groundwater

The Draft Staff Report inappropriately presumes that all irrigated agriculture creates a discharge of waste to both surface and groundwater. The Draft Staff Report states that "[b]ecause all irrigated agricultural operations could affect groundwater quality, they have been considered in the scope of the long-term ILRP." (Draft Staff Report at p. 143.) The Staff Report further presumes that all "operations associated with irrigated agriculture . . . may leach waste into groundwater, potentially causing degradation, or causing or contributing to exceedances of water quality objectives." (*Ibid.*) This broad assumption is neither supported by evidence or any written documentation and unnecessarily burdens many growers who do not create a discharge of waste to various extensive reporting requirements.

92-6

It is recommended that within the LT-ILRP, agriculture should be presumed to be in compliance with water quality standards and water quality objectives if a grower is implementing management practices and other applicable requirements.

III. Recommended Program Alternative

A. A Groundwater Program Should Rely Upon Existing Groundwater Monitoring and Protection Programs

Farm Bureau has numerous concerns with the RPA's regulatory requirements for groundwater. A groundwater program taken on by the Regional Board should first utilize existing monitoring programs before developing yet another costly program, particularly during these tough economic times when everyone is cutting back. The Regional Board should expand on partnership opportunities that rely upon the appropriate local entities and state agencies involved in groundwater monitoring and protection, including but not limited to the Department of Water Resources, Department of Pesticide Regulation, Department of Public Health, etc., to compile, analyze, and utilize existing groundwater data and protection programs, and identify gaps, prior to proceeding with the adoption, regulation, and enforcement upon potential dischargers of groundwater monitoring programs within the LT-ILRP. The appropriate local entities will vary throughout the

92-7

Central Valley and may include the coalitions, local public agencies, and integrated regional water management planning agencies.

Given the various agencies involved in current groundwater monitoring, reasonable time frames (no less than three years) must be established to develop local programs through the LT-ILRP that address prioritized groundwater quality problems. Additionally, sources of existing groundwater data should be fully utilized and include, but are not limited to: Groundwater Ambient Monitoring & Assessment Program (GAMA), Department of Pesticide Regulation, CV-SALTS, Department of Public Health, Department of Toxic Substances Control, and data compiled by local groundwater management agencies and the Integrated Regional Water Management Plan (IRWMP).

92-7 cont'd

Proceeding in such a manner will allow for targeted identification, proposed determinations, and prioritization regarding and appropriate actions to take to address groundwater quality problems at the local level. Without such foundational steps, requirements within the LT-ILRP may be duplicative and conflict with other local and state programs managing groundwater.

B. The RPA Should Avoid Duplicative Regulation With Other Groundwater Programs

The California Water Code Section 10750, et seq., requires groundwater to be generally controlled at the local level, and many such programs are presently in place (see above). To further this directive, various codified Senate and Assembly bills authorize local agencies within groundwater basins to prepare and adopt groundwater management plans with numerous required components directed to preserve water quality. Within many areas of the Central Valley, local agencies have developed local groundwater management plans including AB 3030 plans, SB 1938 plans, and Integrated Regional Water Management plans. These programs require stakeholder involvement and groundwater monitoring and management in order to assess the basin management objectives established in the plan. In addition to these local groundwater management plans, the California Department of Pesticide Regulation ("DPR") regulates the use of pesticides that may be found in or constitute risk to groundwater (Groundwater Protection Program). DPR's Groundwater Protection Program requires that growers implement management measures to prevent pesticides from moving to groundwater.

92-8

If a grower in a groundwater management area has signed up with the agricultural commissioner, follows all applicable pesticide labels, and completes the necessary educational requirements, there should not be a de facto requirement that the grower has to join the applicable area coalition. Rather, the grower should be deemed to be in compliance and should not be subjected to an additional duplicative layer of regulation.

C. The Tiering Requirements Inappropriately Place All Growers Into Tier 2

Farm Bureau has some reservations and concerns regarding the Tier 1 (low priority) and the Tier 2 (high priority) approach as currently drafted within the Staff RPA. Upon review, an automatic default exists in which all growers will be placed in Tier 2 unless and until they can prove they meet the requirements of Tier 1 and are not a "high priority." This tiering structure within Staff's RPA creates confusion and alarm. Farm Bureau respectfully asks for further clarification of and revision to the tiering structure and recommends a de minimus exception for those with little to no groundwater discharge. 92-9

IV. Economic Analysis

The Economic Analysis within the Draft Staff Report cursorily projects the associated costs of the five alternatives within the Draft PEIR. Although this analysis is very disconcerting and flawed, a larger concern is the Draft Staff Report's failure to analyze the economic impact of RPA. Notwithstanding the flaws in analysis of the five alternatives, the Economic Analysis fails to analyze any of the costs associated with the Staff Recommended Program Alternative. Without analyzing the actual proposed project, within the Draft PEIR, it is impossible for any economic analysis to be conducted on the project, thus making the true economic impact of the RPA an unknown. 92-10

Further, the Porter-Cologne Water Quality Control Act ("Porter-Cologne") requires that both costs and economic impacts be considered when developing a new regulatory program for agriculture and such a requirement is absolute. (See Wat. Code, § 13141.) Water Code, section 13141 explicitly mandates:

> State policy for water quality control adopted or revised in accordance with the provisions of this article, and regional water quality control plans approved or revised in accordance with Section 13245, shall become a part of the California Water Plan effective when such state policy for water quality control, and such regional water quality control plans have been reported to the Legislature at any session thereof.
> However, prior to implementation of any agricultural water quality control program, an estimate of the total cost of such a program, together with an identification of potential sources of financing, shall be indicated in any regional water quality control plan.

92-11

(Wat. Code, § 13141.) Before a Regional Board can impose waste discharge requirements or conditioned water quality certification for discharges from irrigated lands, Porter-Cologne requires that it "shall take into consideration" the following factors: "the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241." (Wat. Code, § 13263.) Section 13241 in turn lists six "factors to be considered," including "economic considerations" and "water quality

conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area." (Wat. Code, § 13241.)

Anticipated program implementation costs to the agricultural community include increases in potential fees, management practice implementation, monitoring costs, report preparation, and cost for education, as well as other costs. Given that the impacts of water quality regulations frequently take years to materialize, the Regional Board should analyze the economic costs and impacts within a dynamic framework taking into account the projected changes in the economic situation *over time*.

92-11 cont'd

In addition to direct costs imposed on the agricultural community, the Regional Board should evaluate indirect costs, including the economic consequences that are transmitted via market interactions to other groups, such as consumers. Water quality regulation, such as Staff's RPA, increases the average cost of production and has a direct negative effect on the producer and the consumer through the resulting increase in variable costs and the output price. The propagation of the impacts of a regulation through the economy is well documented and can be quantified by economic analysis.

CONCLUSION

Farm Bureau appreciates the opportunity to submit comments on the Irrigated Lands Regulatory Program Draft PEIR. Farm Bureau urges the Regional Board to reassess the adequacy of the PEIR and the Recommended Project Alternative. Additionally, as evidenced in the Draft PEIR, Alternative 2 is clearly identified as the superior alternative.

92-12

Farm Bureau respectfully urges the Regional Board to support Alternative 2.

Sincerely,

KARI E. FISHER
Associate Counsel

KEF:pkh

cc: Adam Laputz at awlaputz@waterboards.ca.gov
Joe Karkoski at jkarkoski@waterboards.ca.gov

3.3.4.1 Responses to Letter 92

92-1

Comment noted.

92-2

See Master Responses 3 and 4.

92-3

The Central Valley Water Board does not agree with the opinion expressed in the comment. Absent express language of supersession or an actual conflict between two sets of state laws, laws must be interpreted to be in harmony with one another. Because the informational objectives of CEQA can be achieved while preserving Porter Cologne's substantive requirements upon the discharge of waste to waters of the state, there is no actual conflict between CEQA and Porter Cologne. There are likewise no express provisions in CEQA overriding Porter Cologne. Because the existence of a certified regulatory program for DPR has no legal bearing upon the regulatory program contemplated by the Draft PEIR, the Draft PEIR need not discuss DPR's program in detail.

See Comment Letter 99, Response 1.

92-4

See Master Responses 4 and 7.

92-5

See Master Response 6.

92-6

See Master Response 12. Also see Comment Letter 46, Response 4 and Comment Letter 87, Response 4.

92-7

See Comment Letter 114, Response 10; Comment Letter 96, Response 11; and Comment Letter 111, Response 31.

92-8

See Comment Letter 45, Response 20.

92-9

See Comment Letter 47, Response 2 and Comment Letter 97, Response 6.

The suggestion for a *de minimus* exception for those with little to no groundwater discharge will be considered in the development of the Long-term ILRP.

92-10

See Comment Letter 111, Response 46.

92-11

See Master Responses 8, 17, and 8.

92-12

See Comment Letter 1, Response 59.

3.3.5 Letter 96 and 137—California Farm Bureau Federation et al., Theresa Dunham, Attorney, Somach Simmons & Dunn

Comment Letter IL96

September 27, 2010

Via email only - ILRPcomments@icfi.com

ILRP Comments
Ms. Megan Smith
IFC International
630 K Street, Suite 400
Sacramento, CA 95814

SUBJECT: Comments on the Draft Program Environmental Impact Report for the Central Valley Long-Term Irrigated Lands Regulatory Program (LTILRP)

Dear Ms. Smith:

The agricultural organizations, coalitions, and water districts identified below provide the following significant comments and concerns on the Draft Program Environmental Impact Report for the Central Valley Irrigated Lands Regulatory Program (Draft PEIR), the Draft Staff Report, the Recommended Program Alternative (RPA), and the Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (Draft Economic Analysis). As requested, our comments are primarily organized by document and include recommended changes where appropriate.

I. Draft PEIR

Overall, we find the analysis in the Draft PEIR to be superficial, and inadequate to analyze the environmental impacts associated with the five alternatives as well as the RPA. 96-1

Our comments on the major areas of concern in the Draft PEIR are as follows.

A. The Draft PEIR Does Not Accurately Describe or Analyze the Proposed Project

The Draft PEIR analyzes five proposed alternatives. Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff has combined elements of many of these alternatives to develop a sixth alternative, which staff is now recommending for approval, the RPA. De facto, the RPA has become the proposed project. However, the Draft PEIR does not analyze this project *at all*. While the elements of the RPA have been cherry-picked from the other alternatives, the Draft PEIR does not make any attempt to analyze the environmental impacts that would result if these elements were combined with each other, which is how they would be implemented if the RPA were selected as recommended by staff. 96-2

A draft environmental impact report (EIR) must include a general description of the proposed project's technical, economic, and environmental characteristics. (Guidelines for the Implementation of the California Environmental Quality Act[1] (Cal. Code Regs., tit. 14, § 15000 et seq.), hereafter State CEQA Guidelines, at § 15124(c).) The project description must be stable, accurate, and consistent throughout the EIR. "An accurate, stable, and finite project description is the *sine qua non* of an informative and legally sufficient EIR." (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 193.) "A curtailed or distorted project description may stultify the objectives of the [CEQA EIR] process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the 'no project' alternative) and weigh other alternatives in the balance." (*Id.* at pp. 192-193.)

The Draft PEIR follows a National Environmental Policy Act (NEPA)-like approach. It does not identify any preferred alternative. Instead, it analyzes each of the alternatives in detail, and it claims that any one of them could be adopted as the proposed project at the conclusion of the environmental review process. Even if it is assumed that this approach fully complies with CEQA, the Draft PEIR fails because it makes no attempt whatsoever to analyze the environmental impacts associated with the RPA. Although individual elements of the RPA have been analyzed in the Draft PEIR, there is no evaluation of what would result when those elements are combined with each other, as they would be if the alternative were to be selected for implementation.

96-2 cont'd

Indeed, the Draft PEIR does not even include the RPA in its text. Rather, the RPA is presented only in the appendices. In *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, the Supreme Court reaffirmed that key pieces of the CEQA analyses cannot be buried in the appendices. Here, the *proposed project itself*—the RPA that staff is recommending that the Central Valley Water Board implement as the program—is presented *only* in the appendices. This is a blatant violation of *Vineyard*, and it results in serious errors in the environmental analysis.

Thus, the Draft PEIR suffers from both substantive and procedural flaws that are fatal.

B. The Cumulative Impacts of the Preferred Alternative Are Not Accurately Analyzed

As noted above, the RPA represents "a conglomeration of elements presented" in the five alternatives that are analyzed in the Draft PEIR, but the RPA was not itself analyzed in the Draft PEIR, and no attempt has been made to analyze the components of this program (as they would be applied) in conjunction with each other. Compounding this error, the Draft PEIR does not identify "any projects or programs adequately similar in nature, location, and type to result in a meaningful comparative analysis." "[A] cumulative impact consists of an

96-3

[1] California Environmental Quality Act, Public Resources Code section 21000 et seq. (hereafter CEQA).

impact which is created as a result of the combination of the project evaluated in the EIR together with *other projects* causing related impacts." (State CEQA Guidelines, § 15130(a)(1), emphasis added.)

In contravention of State CEQA Guidelines section 15130, the Draft PEIR employs neither a list nor a summary of plans and projections approach to the cumulative impacts analysis. In fact, the Draft PEIR does not identify a single program, policy, plan, or project to be included in the cumulative impacts analysis. Instead of analyzing the cumulative effects of the project together with other projects causing related impacts, the Draft PEIR blithely concludes that there are no other projects—and purports to analyze the cumulative impacts of the project, standing alone. This analysis cannot withstand scrutiny. Other programs and projects that have the potential to affect water quality in the program area include U.S. EPA's recent action banning pesticide application in certain areas, numerous pending National Pollutant Discharge Elimination System (NPDES) permits and other permit actions, and the Central Valley Water Board's own Groundwater Protection Strategy, which has been in development for several years. All of these similar pending programs and projects have the potential to create cumulative impacts on agricultural and other environmental resources, and, thus, require analysis along with the current project. 96-3 cont'd

Moreover, even if it were deemed appropriate to disregard all the programs and projects that have the potential to contribute to cumulative impacts and consider the "cumulative impacts" of the program standing alone, *the Draft PEIR has not done this*. As explained above, the Draft PEIR does not analyze the impacts associated with the RPA; it makes no attempt to evaluate what effects will result if those program components are implemented in conjunction with each other. Thus, even if it were sufficient to limit the scope of the cumulative impacts analysis to the program alone, the Draft PEIR's approach leads to a failure to analyze—and a deliberate understating of—the project's cumulative impacts.

C. Alternative 1 Does Not Accurately Represent the "No Project" Scenario; Continuation of the Existing Irrigated Lands Program Would Be a Project Subject to CEQA, Not the "No Project" Condition

The Draft PEIR claims that Alternative 1 constitutes the "No Project" Alternative, which the Draft PEIR defines as "full implementation of the present program." This description of Alternative 1 is misleading and incorrect. In actuality, the Draft PEIR does not include a true "No Project" Alternative that represents what would happen absent any Central Valley Water Board action. 96-4

"The 'no project' analysis shall discuss the existing conditions at the time the notice of preparation is published, . . . as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." (State CEQA Guidelines, § 15126.6(e)(2).) When the existing conditions include implementation of a program or rule that will expire

unless some affirmative action is taken, the "No Project" scenario must consider the expiration of that program or rule and its associated ramifications. (See, e.g., *Sherwin-Williams Co. v. S. Coast Air Quality Management Dist.* (2001) 86 Cal.App.4th 1258, 1280 [SCAQMD properly defined the "No Project" scenario as "not adopting the proposed amendments to Rule 1113, but instead allowing the expiration of the current product variances for some of the coating categories, and maintaining the current version of Rule 1113 as amended by a 1990 court order"].) In contrast, when an agency must act affirmatively to extend an existing program or rule, that itself is a project that must be analyzed under CEQA. (*Sunset Sky Ranch Pilots Assn. v. County of Sacramento* (2009) 47 Cal.4th 902, 909 [county's decision not to renew a conditional use permit that was expiring is not a project under CEQA, but the renewal of the permit would be].)

Here, the "No Project" Alternative should reflect the expiration of the existing waiver program on June 30, 2011. (See *Coalition Group Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands*, Order No. R5-2006-0053, at p. 17 (2006 Conditional Waiver). Pursuant to Water Code section 13269, the 2006 Conditional Waiver remains in place only if it is affirmatively renewed by the Central Valley Water Board. (Wat. Code, § 13269(b)(1).)

96-4 cont'd

The lack of an accurate "No Project" Alternative constitutes a fatal flaw for the Draft PEIR. The "No Project" Alternative is a mandatory component of an EIR. The purpose of this requirement is "to allow decisionmakers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." (State CEQA Guidelines, § 15126.6(e)(1).) In this case, no such comparison is possible because the "No Project" Alternative is fundamentally inaccurate.

D. The Draft PEIR Misrepresents the Baseline Conditions, So the Entire Environmental Analysis Is Tainted

The Environmental Setting fails to describe accurately the existing environmental conditions, even at a programmatic level. "Knowledge of the regional setting [of the project] is critical to the assessment of environmental impacts . . . . The EIR must demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed and it must permit the significant effects of the project to be considered in the full environmental context." (State CEQA Guidelines, § 15125(c).) Toward that end, the Draft PEIR "must include a description of the physical environmental conditions in the vicinity of the project, . . . from both a local and a regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant." (*Id.* at § 15125(a).)

96-5

First, the "Existing Setting" chapter is, by its own admission, incomplete. For example, the description of the existing conditions related to surface water makes no mention whatsoever of the amount of surface water currently being diverted or the amount being used for irrigation by participants in the Irrigated Lands Program. Likewise, there is no indication

of how much water is returned to stream systems after agricultural use, and how much of that water is derived originally from groundwater basins or surface water sources. Absent this information about the existing physical conditions, it is not possible to determine whether the proposed new regulatory program will cause significant impacts on water supplies, stream systems, or the fish, wildlife and plants dependent on those systems.

The Draft PEIR attempts to overcome the gaps in the "Existing Setting" chapter by adding a discussion of environmental setting to each of the impact analyses. This is confusing to the reader because these supplemental discussions of the "existing setting" are not entirely consistent with the description provided in the "Existing Setting" chapter. Moreover, even the supplemental discussions in the impact analyses are improperly truncated. For example, in the Vegetation and Wildlife Section (section 5.7), the agricultural lands environmental setting consists of three paragraphs for over 7 million acres of agricultural land in the Central Valley. Considering the diversity and value of varying vegetation and wildlife throughout the Central Valley, a three paragraph summary in no way can establish the existing environmental setting. 96-5 cont'd

To the extent the Draft PEIR relies on the "No Program" Alternative to represent the existing baseline conditions, this is improper in this case. As explained above, the "No Program" Alternative misstates what will occur absent any Central Valley Water Board action. Because neither this nor any of the other attempts in the Draft PEIR to describe the environmental setting is legally adequate, the Draft PEIR lacks any accurate baseline against which to judge the environmental impacts of the proposed program.

E. The Draft PEIR Fails to Evaluate the Program's Reasonably Foreseeable Direct and Indirect Effects on the Environment

"In evaluating the significance of the environmental effect of a project, the lead agency shall consider direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes in the environment which may be caused by the project." (State CEQA Guidelines, § 15064(d).) "An indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment." (*Id.* at § 15064(d)(2).) 96-6

The Draft PEIR fails to achieve this charge. For example, the Draft PEIR acknowledges that, under the alternatives analyzed, the higher cost of irrigation would result in less water being used and some land going out of agricultural production. However, the Draft PEIR's analysis stops there. It does not consider what impacts will be caused by the reasonably foreseeable result of less irrigation, such as less water returning to stream systems and diminished flows at certain times of year, and less irrigation water reducing the amount of groundwater recharge that would otherwise occur, particularly in the San Joaquin Valley where many of the surface water delivery systems were built with the intent to increase local groundwater basin recharge. In many groundwater basins within the Central Valley, flood

irrigation is responsible for a significant portion of the groundwater recharge to those basins. Numerous entities rely on that recharged groundwater to meet their water supply needs, including urban agencies, private domestic users, industry and agriculture. Less irrigation could result in significant environmental impacts, and a discussion of those potential impacts is completely absent from the Draft PEIR. In addition to direct groundwater impacts, discharge to waterways from the groundwater basin could also decrease, potentially resulting in reduced flows that may constitute a direct change in the environment. This possibility is also not analyzed by the Draft PEIR. Finally, it is reasonably foreseeable that reduced irrigation could have other indirect environmental impacts. Reduced groundwater availability may require the installation of dedicated recharge basins or injection wells, or force third parties who rely on groundwater recharge to procure alternative supplies in the absence of the previously available groundwater. Such reasonably foreseeable consequences are not considered in the Draft PEIR, rendering the analysis wholly deficient.

In addition to the potential reduction in irrigated acreage, changes in irrigation practices, and specifically the use of pressurized systems, can have a whole host of environmental impacts that were not considered in the Draft PEIR. For example, the Draft PEIR indicates that field preparation activities would not substantially increase as a result of changes in management practices. (See Table 5-5-1.) In reality, the installation of pressurized systems would result in a significant increase in fieldwork which includes but is not limited to the construction of pumping facilities, filtering equipment, and trenching and laying of pipes. These changes could have direct impacts on air quality and other environmental impacts not discussed in the Draft PEIR. In addition, pressurized systems require additional energy to operate, which would similarly result in potential impacts to air quality and energy resources. The failure of the Draft PEIR to include these foreseeable direct and indirect environmental impacts renders it fatally flawed.

96-6 cont'd

Similarly, the Draft PEIR acknowledges that the program will result in the conversion of agricultural lands to other uses, but it fails to analyze the reasonably foreseeable impacts associated with that conversion, such as increased valley temperatures (see Climate Change comments, *infra*), and conflicts with existing land use regulations and zoning (see Land Use comments, *infra*). All of these direct and indirect impacts resulting from the implementation of the program must be analyzed in the Draft PEIR.

F. The Draft PEIR Grossly Understates the Program's Potential Impacts on Land Use

A draft EIR must "discuss any inconsistencies between the proposed project and applicable general plans and regional plans," including habitat conservation plans and natural communities conservation plans. (State CEQA Guidelines, § 15125(d).) While the Draft PEIR acknowledges the requirement to evaluate its consistency with General Plans and Habitat Conservation Plans (HCPs), it makes no attempt to analyze these impacts even in a qualitative manner. Its characterization as a programmatic document does not wholly excuse

96-7

undertaking the required environmental analysis. The Draft PEIR should evaluate the extent to which adopted General Plans within the program area designate agricultural land uses that would be undermined by the increased irrigation costs imposed by the program and the resulting loss of agriculture. Likewise, the Draft PEIR must discuss whether and how adopted HCPs in the program area rely on agricultural land uses and how the increased irrigation costs imposed by the program, and the resulting loss of agriculture, would affect those plans.

Even more egregiously, the Draft PEIR utterly fails to analyze the program's land use impacts. The Draft PEIR acknowledges that agricultural lands are a resource that must be analyzed under CEQA, and it also admits that many jurisdictions have adopted land use plans, regulations, and zoning ordinances to protect agricultural uses. Yet the Draft PEIR completely fails to analyze, even at a programmatic level, whether the program will conflict with any of these land use plans, regulations, or zoning ordinances. Again, the Draft PEIR's status as a programmatic document is not an excuse to omit *any* discussion of these potentially severe impacts—which is the faulty path taken by the Draft PEIR.

96-7 cont'd

G. The Draft PEIR's Conclusions Regarding Global Warming Are Not Supported by Substantial Evidence

The conclusions drawn in an EIR must be supported by substantial evidence. The Draft PEIR's climate change analysis fails to meet this standard, as it relies on argument and speculation rather than the best available evidence. While this is an evolving area of science, and there may not be much evidence available, the lead agency must use the best evidence available to it to inform its analysis. If there is any substantial evidence to support the Draft PEIR's conclusion that irrigating agricultural lands causes climate change—which seems doubtful—the Draft PEIR does not contain or cite it.

Here, the best available evidence is a 2007 study, which indicates that agricultural irrigation practices in the Sacramento/San Joaquin Valley cause the mean temperature in summer months to drop, even as greenhouse gas emissions drive temperatures upward. (Irrigation cooling effect: Regional climate forcing by land-use change, Geophysical Research Letters, Vol. 34, L03703 (Feb. 7, 2007) (Enclosure 1).) As noted by Professor Lara Kueppers, one of the authors of the study, "activities related to agriculture, forestry and development do matter to the climate." As Professor Kueppers states, "If we don't consider what we're doing to the area by urbanizing, which removes farmland that has a cooling effect, we could very well end up with a much hotter Central Valley." (See http://www.ucmerced.edu/news_articles/02082007_professor_s_research_shows.asp.) This evidence suggests that any program such as the LTILRP, which the Draft PEIR concedes will have the effect of removing some land from irrigation, will cause increased climate change impacts in the Central Valley. While it may not be possible to precisely quantify those impacts at this time, they must be disclosed, at least at a qualitative level.

96-8

In addition, the Draft PEIR fails to account for the effects of new management practices on energy demand, which would in turn affect air quality, greenhouse gas emissions and ultimately climate change. As noted in our comments regarding the Draft PEIR's failure to adequately assess the true impact of the LTILRP on the environment, the installation of pressurized systems would result in a significant increase in construction activities in the short term and increased energy consumption in the long term, both of which could contribute to an increase in greenhouse gas emissions. This increase could have a direct impact on climate change, yet it was not discussed or analyzed in the Draft PEIR, even in a qualitative fashion.

96-8 cont'd

H. The Draft PEIR Arbitrarily Imposes Mitigation Measures That May Not Be Legally Imposed

Mitigation measures that cannot be legally imposed need not be proposed or analyzed. (State CEQA Guidelines, § 15126.4(a)(5).) The "Mitigation and Improvement Measures" for vegetation and wildlife resources identified in section 5.7.6 (p. 5.7-50) propose mitigation measures that would require avoidance of sensitive biological resources, additional CEQA review if such resources cannot be avoided, and would force agricultural landowners to conduct a delineation of affected wetlands "prior to implementing any management practice that will result in the permanent loss of wetlands." In delineating wetlands, the mitigation requires it to be conducted in accordance with current U.S. Army Corps of Engineer (Corps) methods. The mitigation measures proposed here cannot be legally imposed in all cases.

First, we question the requirement to undertake additional CEQA review when an adverse effect on a sensitive biological resource cannot be avoided. While we agree that impacts to such sensitive areas should be avoided, we are concerned that, as proposed, the mitigation measure imposes a new CEQA requirement on agricultural landowners and operators when no discretionary project may actually be triggered by the action. For example, in some jurisdictions, and depending on the construction activity, grading permits may be required for installation of certain management practices (e.g., detention basins). However, in many jurisdictions, the act of constructing a management practice may not rise to the level of activity subject to a grading permit. Further, the implementation of management practices at the farm level, which would be encouraged in area-wide waste discharge requirements (WDRs), is not subject to a discretionary approval by the Central Valley Water Board. Thus, there is no universal trigger for additional CEQA review. At most, such review may be necessary if the construction activity constitutes a discretionary project under the local jurisdiction's authority. To avoid confusion, we suggest that this mitigation measure be revised to clarify that additional CEQA review is only necessary if a discretionary project for approval has been triggered by the construction activity.

96-9

Next, we are concerned that the mitigation measure for wetland loss is too broad and fails to recognize that implementation of management practices is most likely to occur on irrigated agricultural land currently in production. The Central Valley Water Board does not have the authority to order the delineation of affected wetland areas identified as converted

croplands because such agricultural areas do not fall within the jurisdiction of the Corps. The Clean Water Act (CWA) and the authority of the Corps to perform operations under the CWA apply only to "waters of the United States." The regulatory definition of waters of the United States specifically states that, "Waters of the United States do not include prior converted cropland . . . ." (33 C.F.R. § 328.3(a)(8).) Furthermore, guidance issued by the U.S. EPA in 2008 clarifying CWA jurisdiction following the Supreme Court case of *Rapanos v. United States* (2006) 547 U.S. 715, made no mention of and had no effect on this exemption for ongoing agricultural operations. As such, cropland continues to be exempt from the Corps' CWA jurisdiction. If it is not within the authority of the Corps to conduct a delineation because the area to be examined is not a water of the United States as defined by federal law or -regulation, then it follows that it is not within the authority of the Central Valley Water Board to order individual agricultural operations to undertake such an action as a mitigation measure.

96-9 cont'd

II. Draft Staff Report

A. Application of State's Anti-Degradation Policy

The Draft Staff Report incorrectly characterizes application of the state's anti-degradation policy. Specifically, the Draft Staff Report implies that application of the anti-degradation policy is triggered merely because the LTILRP will authorize agricultural discharges to surface and groundwaters to continue. (See Draft Staff Report at p. 63 ["From a programmatic standpoint, irrigated land waste discharges have the potential to cause degradation of surface and groundwater, and the requirements of the anti-degradation policies must be followed."].) However, this characterization and application of the anti-degradation policy to the proposed LTILRP is inappropriate. As indicated in State Water Resources Control Board (State Water Board) orders and guidance documents, the anti-degradation policy is triggered when the Central Valley Water Board is taking an action that may cause degradation to high quality waters. It is not applicable if the Central Valley Water Board's action will not cause degradation.

96-10

For example, State Water Board Order No. WQ 86-17 clearly states, "[b]efore approving any *reduction* in water quality, or any activity that would result in *reduction* in water quality, the Regional Board must first determine that the change in water quality would not be in violation of State Board Resolution No. 68-16 or the federal antidegradation policy." (*In the Matter of the Petition of Rimmon C. Fay* (Nov. 20, 1986) Order No. WQ 86-17 at p. 17, emphasis added.) More recently, the State Water Board opined that, "[t]he federal antidegradation policy and State Water Board Resolution 68-16 *apply to reductions in water quality*." (*In the Matter of Petitions for Reconsideration of Water Quality Certification for the Re-operation of Pyramid Dam for the California Aqueduct Hydroelectric Project Federal Energy Regulatory Commission Project No. 2426* (Aug. 4, 2009) Order WQ 2009-0007 (*Pyramid Dam*) at p. 12, emphasis added.) By its own admissions in the Draft PEIR, the Central Valley Water Board anticipates that implementation of any of the alternatives

analyzed, except for perhaps Alternative 1 as it applies to groundwater, will *improve* water quality. Thus, because adoption of the LTILRP will not result in a reduction in water quality, the federal and state anti-degradation policies are not applicable.

Furthermore, even though application of the anti-degradation policies may be triggered for changes that have already occurred, such an application only occurs when the changes have not already been reviewed for consistency with those policies. (See *Pyramid Dam* at p. 12.) That is not the case here. The Draft Staff Report incorrectly states that "unpermitted degradation has occurred since 1968." (Draft Staff Report at p. 61.) In fact, irrigated agricultural has been subject to Central Valley Water Board regulation since adoption of the original waivers in 1982 when the Central Valley Water Board adopted Resolution No. 82-036. To adopt waivers pursuant to Water Code section 13269, the Central Valley Water Board was required to find that the waivers were consistent with any applicable regional water quality control plan (i.e., Basin Plan). The water quality control plans for the Central Valley region (for both the Tulare Lake Basin and the Sacramento and San Joaquin River Basins) have included and contained State Water Board Resolution No. 68-16 since the plans were adopted in 1975. Thus, to adopt the waivers, the Central Valley Water Board needed to find that adoption of the waivers was consistent with Resolution No. 68-16. In other words, discharges from irrigated agriculture were found to be consistent with Resolution No. 68-16 in 1982, and therefore only a Central Valley Water Board action that would degrade water quality is subject to the state and federal anti-degradation policies. As already indicated, the proposed action would not degrade water quality but would improve water quality.

Even if implementation of the LTILRP does trigger application of anti-degradation policies, staff's recommendation that all operations subject to the program be subject to the best practicable treatment or control (BPTC) standard is entirely inappropriate. The BPTC standard only applies where there is potential degradation of high quality waters of the state. As articulated by the State Water Board, "[i]n order to determine whether the allowance of limited degradation is consistent with [the 68-16] provisions, we must *first* see if existing water quality is better than water quality established in policies." (*In the Matter of the Petitions of the County of Santa Clara, Santa Clara Water District, City of San Jose, Citizens for a Better Environment and Silicon Valley Toxics Coalition To Review Issuance of Waste Discharge Requirements of Hazardous Materials Cleanup to International Business Machines Corporation (May 5, 1986)* WQ Order No. 1986-8, at p. 29, emphasis added.) This is a fact specific determination that the Central Valley Water Board must make, and cannot be broadly applied to all waters governed by the LTILRP in the absence of any inquiry into whether the affected water is considered high quality.

In spite of this threshold requirement, the Draft Staff Report concludes that because of the large number of water bodies within the scope of the LTILRP, "determination of a baseline water quality is a near impossible task." (Draft Staff Report at p. 60.) Based on the "complexity" of determining the quality of waters covered by the program and the

96-10 cont'd

"significant variation in conditions over the broad areas covered by the program," staff's solution is to forego an individual assessment and simply apply BPTC to all irrigated lands. Essentially, the "long-term ILRP *assumes* that at least *some* of the waters into which agricultural discharges will occur are high quality waters" (*id.* at p. 63) and therefore BPTC should apply to all discharges. This assumption is contrary to the plain language and intent of the anti-degradation policy and the BPTC requirement.

Staff's own conclusions do not indicate that all or even most of the waters affected by the program are high quality waters that would be subject to the BPTC standard. By its own admission in the Draft PEIR, the Central Valley Water Board acknowledges that, "... *many* water bodies in the Central Valley Region are already impaired for various constituents associated with irrigated agricultural activities ..." and that under the LTILRP "... multiple water bodies are affected by various discharges, *some* of which may be high quality waters and some of which may by contrast have constituents at levels that already exceed water quality objectives." (Draft Staff Report at pp. 61, 63, emphasis added.) The potential complexity of a more individualized assessment does not abrogate the Central Valley Water Board's responsibility for making determinations as to the status of a water body as high quality or not. Applying a blanket rule for all waters covered by the program, simply because it would be too time consuming or difficult to make individualized determinations to ascertain which waters would fall under the BPTC standard, is entirely inappropriate.

96-10 cont'd

B. Coordination of Groundwater Programs (pp. 79-80)

In its discussion with respect to other regulatory programs, the Draft Staff Report indicates that staff intends to coordinate its efforts with the Department of Pesticide Regulation's (DPR) groundwater protection program. First, this essential coordination effort is buried in a Draft Staff Report's general description of other regulatory programs. To the extent that the Central Valley Water Board intends to truly coordinate with DPR, the coordination element should be clearly identified as part of the RPA. That currently is not the case.

96-11

Second, the Central Valley Water Board's proposed method for coordination is not appropriate. The Draft Staff Report proposes that where there is a reported detection of pesticides in groundwater, the LTILRP (i.e., the Central Valley Water Board) would immediately review data and inform growers of the need to implement management practices. We disagree with the implication that any "reported detection of pesticides in groundwater" calls for immediate notification and action by growers. Instead, the LTILRP should evaluate if the reported level of the pesticide in question exceeds applicable groundwater quality objectives, and if future uses of the pesticide will potentially cause the level of pesticide to exceed applicable objectives. Once it has been determined that growers are discharging pesticides to groundwater cause the groundwater to exceed applicable water quality objectives, then it is appropriate to determine if new or additional management practices are necessary.

96-12

On another note, we encourage the Central Valley Water Board to coordinate its efforts with existing groundwater programs and not just DPR's. The Central Valley Water Board should expand on partnership opportunities that rely upon the appropriate local entities and state agencies involved in groundwater monitoring and protection (Department of Water Resources, Department of Public Health, etc.) to compile, analyze, and utilize existing groundwater data and protection programs, and identify gaps, prior to proceeding with the adoption, regulation, and enforcement upon potential dischargers of groundwater monitoring programs within the LTILRP. The appropriate local entities will vary throughout the Central Valley and may include agricultural coalitions, local public agencies, and integrated regional water management planning agencies. By coordinating efforts, the Central Valley Water Board can avoid duplicating and conflicting with other local and state programs that are already being implemented by others. 96-13

C. Consistency With Non-Point Source Policy (pp. 107-114)

The Draft Staff Report identifies five key elements from the State's Non-Point Source Policy to determine if the five alternatives are consistent with the five key elements. With respect to Key Element 4, we disagree with the Central Valley Water Board's assessment that Alternative 2 is only partially consistent. Key Element 4 states that, "[a]n NPS control implementation program shall include sufficient feedback mechanisms so that the RWQCB, dischargers, and the public can determine whether the program is achieving its stated purpose(s), or whether additional or different MPs [management practices] or other actions are required." Alternative 2 does provide and include sufficient feedback mechanisms. As indicated, Alternative 2 includes monitoring provisions for both groundwater and surface water monitoring, as well as tracking of management practices. (Draft PEIR at pp. 3-12 - 3-13.) The monitoring provisions for Alternative 2 clearly provide for a sufficient feedback mechanism. 96-14

D. Economic Impacts and Draft Technical Memorandum Concerning the Economic Analysis of the LTILRP

After examining the full economic analysis of the LTILRP, we are concerned that it fails to address a number of the costs, which will be incurred as a result of implementation of the RPA, or any of the alternatives. The economic analysis is woefully inadequate in that it clearly does not evaluate the potentially substantial costs which may be associated with practices compelled or prohibited by the various alternatives, including but not limited to nutrient management, irrigation practices, and the installation and operation of monitoring wells. The costs of these actions could be in the hundreds of millions of dollars, yet they are not substantially addressed by the economic analysis. Furthermore, the economic analysis contains several generalities and understated assumptions that prevent the reader from attaining a genuine picture of the actual costs and economic impacts of the various alternatives. For example, there is an assumption that growers will simply "find less expensive ways to modify their production practices" and therefore the analysis assumes 96-15

economic impacts would be somewhat reduced. (Draft Economic Analysis at pp. 1-3.) The economic analysis also fails to estimate the admittedly understated economic impacts as a result of forward-linked effects, and contains an erroneous estimate of the number of enrolled growers. These generalizations and faulty assumptions severely reduce our confidence in the overall reliability of the economic analysis.

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In addition, we are very concerned with the Draft Staff Report's failure to analyze the economic impact of staff's RPA. The Porter-Cologne Water Quality Control Act (Porter-Cologne) requires that both costs and economic impacts be considered when developing a new regulatory program for agriculture. (See Wat. Code, § 13141.) The Draft Staff Report acknowledges this requirement, and the Draft PEIR does make an attempt to analyze the economic impact and cost of the LTILRP. Unfortunately, it does so in the context of the individual alternatives, none of which represent the actual staff proposed alternative that has been recommended for implementation.

Just as the cumulative impacts of the preferred alternative are not analyzed in staff's RPA, the economic impacts of the RPA are not analyzed either. As noted earlier in our comments, because the RPA is actually a conglomeration of other project alternatives, the Draft PEIR does not truly analyze the proposed project. In the same vein, without analyzing the RPA, it is impossible for the Draft Staff Report to analyze the true economic impact of that project. The Draft Staff Report does attempt to assemble relevant pieces from Alternatives 2 and 4 to produce an estimated economic impact and cost. However, there is no indication that the independent economic analysis on which those estimates are based is supported by using pieces of other alternatives. Assumptions contained in the actual independent economic analysis may not remain true if variant pieces of each alternative are selectively taken out and subsequently reassembled, as is the case in the RPA. Taking isolated figures from an economic analysis that was designed to summarize the ramifications of different alternatives in their entirety may not accurately reflect the true economic impacts of the RPA. The Draft PEIR should have contained a full economic impact analysis of the RPA not based exclusively on the estimated costs of pieces assembled from the other alternatives. The Draft PEIR fails to do so, and therefore there is no basis on which to accurately calculate the economic impact or costs of the RPA.

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In addition, the failure of the Central Valley Water Board to adequately describe and analyze a no project alternative is simultaneously a failure to represent the economic impacts of that no project alternative. As noted in our earlier concerns, Alternative 1 does not adequately represent the no project scenario because continuation of the existing waiver program would additionally be a project subject to CEQA. The economic impact analysis notes that "full implementation of Alternative 1 is considered the continuation of the existing program" yet this does not take into account the fact that the current waiver program would expire absent Central Valley Water Board action. Consequently there is no consideration of the economic impact of the true no project alternative, the analysis of which would provide a more adequate baseline for comparison purposes.

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Aside from the more general deficiencies in the economic impact analysis contained in the Draft Staff Report, there are specific economic impacts that did not receive a thorough analysis. Specifically, the recommended shift to pressurized systems would require significant infrastructure changes for irrigation districts, including the construction of new pipelines and modification or construction of flow regulating structures and turnouts. This would require significant capital investment from growers and irrigation districts, and increased costs to the irrigation districts could ultimately be passed on to growers in the form of increased water rates. In addition, the Draft PEIR places the burden on growers and third party groups to prove that best management practices for groundwater quality protection and cleanup are effective through monitoring and assessment without taking into account the impact and cost of such efforts. Without taking these costs into account, the Draft Staff Report fails to analyze the actual costs and economic impact of the proposed project as it is required to do. Finally, the staff alternative indicates that the Tier 2 groundwater monitoring would have to both establish a baseline and trend and identify management practices. (Draft Staff Report at p. 158.) However, the potentially significant costs of undertaking this activity are also not contained in the economic analysis. 96-18

III. Recommended Program Alternative

A. Adoption of Individual WDRs Will Require Compliance With CEQA

The adoption of the eight to twelve WDRs discussed in the staff's recommended program alternative is a "project," as defined in CEQA. (Pub. Resources Code, § 21065.) CEQA and its requirements apply to discretionary projects proposed by public agencies. (*Id.*, § 21080(a).) The Central Valley Water Board's approval of WDRs is a discretionary decision, and therefore it is subject to CEQA. Thus, when the Central Valley Water Board goes to adopt the eight to twelve individual WDRs, it will be required again to consider the environmental impacts associated with adoption of the individual WDRs. To the extent the Central Valley Water Board intends to rely on the Draft PEIR for its determination of environmental impacts, the Draft PEIR provides insufficient analysis and is only applicable on a limited basis. 96-19

B. Timeframe for Implementation is Aggressive

We are concerned that the timeframe for implementation outlined in the RPA is far too aggressive and operations subject to the LTILRP may be unable to meet the recommended deadlines. (RPA at p. 144.) First, the expansion from regulation of surface water only to surface and groundwater will be a struggle for each coalition to achieve, and it will certainly take more than three months for coalitions and growers to analyze whether compliance is feasible. Furthermore, the Draft Implementation Timeframe allots a mere 30 months before new participants are enrolled in the program. Thirty months is an extremely optimistic estimate for the coalitions and the Central Valley Water Board to be able to convince growers who have never been part of the waiver that they need to enroll in the program, if they are in fact subject to its requirements. Finally, an anticipated full implementation deadline of three 96-20

years is simply too aggressive. (See section G.2.b below [three years is needed to allow for the development of groundwater quality management plans].) Since fall of 2008, the Stakeholder Advisory Workgroup has been meeting and providing feedback on issues pertaining to the development of a LTILRP. Even now, the EIR process is ongoing and a full hearing before the Central Valley Water Board on the LTILRP is tentatively scheduled for the summer of 2011. It is worrisome that a program requiring three years of stakeholder input, comments, and review is recommended for full implementation in such a short timeframe. Furthermore, the existing conditional waivers have been the controlling standard for such an extended period, a full transition to a new program in just three years may prove to be unworkable. It is overly aggressive to expect that the coalitions and the Central Valley Water Board can fully implement a new long-term program that includes groundwater in a three year time period. 96-20 cont'd

C. Adoption of Conditional Prohibition of Discharge Inappropriate

As we have indicated throughout this process, we are concerned with the Central Valley Water Board's intent to adopt a conditional prohibition into both Basin Plans (*i.e.*, Sacramento and San Joaquin Rivers, and Tulare Lake). According to Central Valley Water Board staff, the intent is to provide the Central Valley Water Board with more direct enforcement authority over individuals that are not participating in the LTILRP. While the agricultural organizations are supportive of Central Valley Water Board efforts to utilize its enforcement authority appropriately to ensure equal and fair application of the LTILRP over all persons subject to its requirements, we are concerned with the use of a Basin Plan prohibition in this manner. The prohibition provisions in Porter-Cologne were included to authorize regional water quality control board's to determine that the discharge of certain types of waste or certain areas should be prohibited to protect water quality. (See Wat. Code, § 13243.) It was not included to circumvent notification requirements for bringing enforcement actions against non-compliant individuals. Furthermore, all persons should be afforded appropriate due process rights, including notification regarding non-compliance before being subject to administrative civil penalties. Also, adequate enforcement tools appear to be in place without invoking prohibitions of discharge. Lastly, we observe that (1) a stated objective of the LTILRP is to avoid economic impact on agricultural operations, and that (2) a prohibition of discharge would severely impair the ability of most farms to function. This unnecessary provision therefore is out of keeping with the objectives of the LTILRP, as stated in this same document. As such, we continue to be opposed to this provision. 96-21

D. Presumption That All Irrigated Agriculture Creates a Discharge of Waste Is Inappropriate

The Draft Staff Report inappropriately presumes that all irrigated agriculture creates a discharge of waste. The Draft Staff Report states that, "[b]ecause all irrigated agricultural operations could affect groundwater quality, they have been considered in the scope of the long-term ILRP." (Draft Staff Report at p. 143.) The Draft Staff Report makes this 96-22

presumption in spite of the fact that staff acknowledges there is only a possibility that individual irrigated lands actually create a discharge of waste. (See Draft Staff Report at p. 143 ["Operations associated with irrigated agriculture . . . *may* leach waste into groundwater, *potentially* causing degradation, or causing or contributing to exceedances of water quality objectives." (Emphasis added.)].) While the Central Valley Water Board may have the authority to regulate irrigated agriculture that creates a discharge of waste under the LTILRP, the Central Valley Water Board does not have unfettered regulatory authority to regulate agricultural practices that do not create such a discharge. One fundamental limitation on the Central Valley Water Board's authority to regulate irrigation practices is that the activity must result in a "discharge of waste" that impacts water quality. Simply because it would be "difficult to determine" whether individual irrigated lands are creating a discharge of waste does not eliminate the Central Valley Water Board's statutory obligation to only regulate activities that actually create a discharge of waste. While a blanket determination that all irrigated agriculture creates a discharge of waste may be convenient for regulatory authority purposes, it is an inaccurate presumption with no evidentiary support. Presuming all irrigated agriculture creates a discharge of waste simply because some irrigated agriculture may potentially or could possibly affect water quality is entirely inappropriate and does not fall within the Central Valley Water Board's authority to regulate only those irrigation practices that result in a "discharge of waste."

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In addition, this improper presumption is coupled with an improper shift in the burden to the landowner or operator to disprove that presumption. Water Code section 13267 authorizes the Central Valley Water Board to require reports from those who discharge waste, but requires that the Central Valley Water Board "provide the person with a written explanation with regard to the need for the reports" and "identify the evidence that supports requiring that person to provide the reports." In contrast, the Draft Staff Report makes a broad assumption that all irrigated agriculture creates a discharge of waste, subjecting operations to various reporting requirements without providing a written explanation or supporting evidence, even while acknowledging that some of those operations do not create a discharge of waste.

Thus, the Draft Staff Report needs to be revised to remove the presumption that agricultural irrigation constitutes a discharge of waste to groundwater.

E. Third-Party Organizations Not Appropriate Entities to Identify Potential Impacts to Sensitive Areas

We are concerned that the Draft Staff Report places an impractical burden of identifying potential impacts to sensitive resources on third party organizations. The Draft Staff Report states, "Where an irrigated agricultural operation/third-party group determines that a proposed management practice/monitoring well may impact a sensitive resource, the ILRP will require . . . ." the individual or third party to mitigate the effects or come up with an alternative course of action. (Draft Staff Report at p. 172.) With this language, the RPA

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implies that the third-party organizations will be reviewing and approving all management practices, and their environmental settings for every covered coalition member. Such a requirement and expectation of the third-party groups is unrealistic and therefore the language should be modified.

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F. Determination of Impact to Sensitive Resources is Cost Prohibitive

The RPA includes a number of regulatory requirements for individual agricultural operations. One of the requirements would require individual agricultural operations to determine if a proposed management practice will impact a sensitive resource. This requirement is directly linked to the mitigation measures described in the Draft PEIR and discussed previously. As indicated above, the mitigation measures, which would require agricultural operations to hire consultants to conduct wetlands and habitat delineations, are costly and impractical. As a result, the mitigation measures are infeasible and not appropriate for application to agriculture. Further, ongoing agricultural operations on already converted cropland are exempt from Corps requirements and, therefore, requiring such delineations are outside the Central Valley Water Board's authority. While we support and encourage avoidance of sensitive resources, we cannot support the extreme costs that would be placed on individual growers for delineating sensitive resources, except as already required by other environmental statutes and regulations.

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G. As Described, No Areas Would be Eligible to be Classified as Tier 1

As a preliminary matter, we encourage the Central Valley Water Board to revise the Tier 1 and Tier 2 classifications to clearly indicate that the designation of water bodies between Tier 1 and Tier 2 must be limited based on the use of scientific, quality-controlled data. Further, the designations between Tier 1 and Tier 2 should be clearly defined within the RPA. We recommend that the primary designation for Tier 2 surface water should be management plan triggers, excluding natural and non-agricultural sources of dissolved oxygen (DO), pH, and pathogens. Tier 2 groundwater designations should be initially limited to DPR groundwater management zones and areas where nitrates or other constituents are known to affect drinking water quality. All other waters should remain in Tier 1 until quality data indicates otherwise.

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1. Tier 1

According to the RPA, a major factor in determining if an area is classified as Tier 1 (*i.e.*, low priority) or Tier 2 (high priority) depends on if irrigated agricultural operations are identified as causing or contributing to a water quality problem to surface and/or groundwater. Based on this priority factor, it appears that the Central Valley Water Board would need to assess all individual agricultural operations in an area to determine if each individual operation is eligible to be classified as Tier 1. Such an approach is infeasible, which will mean that all areas will be classified as Tier 2.

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Further, in determining what is classified as Tier 1 or Tier 2, the RPA provides no specificity with respect to situations where most water quality standards are met, except for one or two. For example, in some areas, water quality standards are met for almost all parameters except for pH, dissolved oxygen, and/or bacteria. When dealing with these types of constituents of concern, it is very difficult to ascertain the actual cause of exceedances, and even more difficult to show that the exceedances are caused by irrigated agricultural operations. In many cases, exceedances for these constituents of concern are caused by natural and other non-agricultural sources. However, based on the language in the RPA, it is possible that areas with no other water quality exceedances will be classified as Tier 2 areas and therefore be subject to more stringent reporting and monitoring requirements as compared to those in Tier 1. To avoid such consequences, we encourage that the RPA be amended to recognize that exceedances of these types of constituents will not trigger significant monitoring and regulatory compliance burdens as is required in Tier 2.

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2. Tier 2 (i.e., high priority areas)

a. Surface Water

The RPA would require the development of a surface water quality management plan[2] (SQMP) for any parameter that exceeds water quality objectives two or more times in a three-year period. The exceedance trigger for the development of SQMPs, as expressed here, is not an appropriate trigger for many parameters. This requirement fails to take into account the purpose of the water quality objective at issue and the beneficial use for which it is designed to protect. More specifically, the two or more exceedances in three years is a standard derived from U.S. EPA's *Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and their Uses* (1985 Guidelines). Thus, at most, this standard should be applied where there are two or more exceedances of water quality objectives designed to protect aquatic life beneficial uses. It is inappropriate to use this standard to trigger implementation of SQMPs where there are exceedances of water quality objectives designed to protect non-aquatic life beneficial uses. For example, many water quality objectives are for the protection of human health over a long-term period of exposure. Thus, two exceedances in three years do not necessarily mean that the beneficial use in question is being impaired. Another example is salts. Salt objectives are usually set to protect agricultural beneficial uses. Crop impacts from salt are based on salt build-up over time—not acute impacts. Thus, the requirement for a SQMP based on just two exceedances is unreasonable. This arbitrary requirement results in the unnecessary expenditure of time and resources on constituents that are not of concern considering the purpose of the objective. (RPA at p. 153.)

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[2] The SQMP would need to be developed for the watershed represented by the monitoring site.

Further, the RPA states that under the SQMP, irrigated agricultural operations are required to implement management practices to achieve BPTC. This requirement is inconsistent with the state's anti-degradation policy. As stated previously, Resolution No. 68-16 applies only to high quality waters (*i.e.*, those achieving water quality objectives). BPTC, which is part of Resolution No. 68-16, applies only when there is a discharge to a high quality water. By virtue of the fact that a SQMP is required, the Central Valley Water Board has already determined that the water body is not a high quality water for the parameter in question, and therefore BPTC is not required. 96-28

b. Groundwater

In general, we are concerned with the requirement for third-party groups to develop and submit groundwater quality management plans (GQMPs) within 18 months of adoption of the individual area/coalition WDR. Considering the need to collect and analyze available information to identify constituents of concern and areas of concern, 18 months is not a sufficient timeframe to collect and evaluate the available information. Instead, we recommend that the RPA allow three years for the development of GQMPs in order to allow for the development of local programs to address prioritized groundwater quality problems. Further, and as discussed previously, the RPA must allow for the use of existing groundwater data to prioritize necessary and appropriate actions for addressing groundwater quality problems at the local level. Without these foundational steps, the requirements within the LTILRP may be duplicative and conflict with other local and state programs managing groundwater. 96-29

More importantly, we are concerned that the Central Valley Water Board's assessment and definition of groundwater is the first encountered groundwater. Although not specifically discussed in the Draft PEIR or the RPA, most beneficial uses of groundwater do not actually occur in the first encountered groundwater. For example, municipal supply wells must be at least 50 feet below surface, and not 10 feet. (Calif. Department of Water Resources, Calif. Well Standards, Bulletin 74-90 (June 1991).) However, tiers will be assigned based on the quality of water in the first encountered zone. The Draft Staff Report thereby makes an improper assumption that measuring discharge from irrigated lands covered by the LTILRP at the shallow first encountered groundwater level will provide an accurate picture of actual impact on the beneficial uses in that area. We do not believe this determination to be appropriate or supportable under Porter-Cologne. 96-30

In addition, the proposed measurement of groundwater in the first encountered zone fails to take into account the assimilative capacity of soil in irrigated lands governed by the LTILRP. There is considerable treatment that occurs as water makes its way through the soil profile, and in many areas it can be reasonably expected that there will be significant dilution and attenuation of constituents prior to reaching any groundwater extraction point. Furthermore, because the lands covered by the LTILRP are so varied in soil composition, the assimilative capacities of those lands also vary, and indiscriminately using first encountered 96-31

zone measurements may produce inconsistent and inaccurate results. The Draft Staff Report fails to consider this possibility. Because there is a significant possibility that a dilution of constituents will occur before discharge reaches the level at which it is put to beneficial use, and a substantial likelihood that groundwater data collected at the first encountered zone will bear little relationship to the actual impact on beneficial uses in that area, determining compliance with water quality objectives in the first encountered zone is inappropriate. The Draft Staff Report's failure to consider the potential variances in assimilative capacity of irrigated agricultural lands, the blanket use of a first encountered zone measurement to determine groundwater quality, and the Report's failure to include the possibility of measuring at mixing zones is inappropriate and potentially unsupportable under Porter-Cologne. (Wat. Code, § 13000 ["The Legislature further finds and declares that activities and factors which may affect the quality of waters of the state shall be regulated to attain the highest water quality which is reasonable . . . ."].)

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c. Periodic Review of Approved SQMPs/GQMPs

The RPA would require review of SQMPs at least every two years and GQMPs every five years. Review of the SQMPs/GQMPs would include third-party groups as well as other interested parties. In general, we do not oppose periodic review of SQMPs/GQMPs with Central Valley Water Board staff. However, we believe it is unnecessary for this review process to include "other interested parties." (Draft Staff Report at p. 154.) The Central Valley Water Board represents the public interest and therefore it is unnecessary for other stakeholders to participate in reviews at this level. Further, such a requirement is unprecedented and has no legal basis. SQMPs/GQMPs are designed to identify management practices that would be appropriate and applicable for the constituent of concern and the watershed in question. Thus, Central Valley Water Board review on the sufficiency of SQMPs/GQMPs is appropriate. While the SQMPs/GQMPs are public documents once submitted to the Central Valley Water Board, they are not the type of documents that require Central Valley Water Board approval and therefore they are not subject to formal public review and comment.

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Although not specified in the RPA, we anticipate the development of SQMPs/GQMPs would be required pursuant to the Central Valley Water Board's authority under Water Code section 13267. Section 13267 allows the Central Valley Water Board to require the submittal of technical and monitoring reports as long as the burden of preparing the report bears a reasonable relationship to the need for the report and the benefits to be obtained. Nothing in section 13267 requires that such reports be subject to public review or comment, or be open for discussion with other interested parties.

In all of the Central Valley Water Board's other programs, individual dischargers are not required to have management plans reviewed periodically by other interested parties. Typically, when dischargers are required to submit special studies or management plans, the plan is submitted to the Central Valley Water Board staff for review and comment, revised

based on Central Valley Water Board staff comments, and then implemented. At most, the municipal stormwater program requires that stormwater management plans be subject to public review, comment, and adoption by the Central Valley Water Board. However, this requirement for municipal stormwater management plans stems from federal NPDES permit requirements and is not applicable here. (See *Environmental Defense Center v. EPA* (9th Cir. 2003) 344 F.3d 832, 856.)

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Further, by allowing other interested parties to evaluate the sufficiency of SQMPs/GQMPs, the process may be stalled with protracted negotiations between all of the parties to determine what is sufficient. If other interested parties have concerns with the sufficiency of SQMPs/GQMPs, they may express their concerns to the Central Valley Water Board at any time without being a required entity in the periodic review process.

d. Individual Farm Water Quality Management Plans (FWQMPs)

The RPA proposes to require individual FWQMPs if objectives are not met, improvements do not occur within the approved time schedule for implementation, *or* where irrigated agricultural operations are not implementing requirements in SQMPs/GQMPs. In other words, FWQMPs could be required for any and/or all agricultural operations in high-priority areas. By stating that such plans could be required in any of these situations, the RPA provides no time for SQMPs/GQMPs to be developed and implemented. Further, it undermines the compliance schedule provisions in the RPA because it allows for the Central Valley Water Board to require FWQMPs even if the compliance period for the constituent of concern has not yet expired.

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e. SQMP/GQMP Requirements (Appendix D)

We are also concerned with some of the language and recommendations contained in Appendix D for the ILRP Surface and Groundwater Quality Management Plan Requirements. With respect to Key Element 3, as we have stated previously, BPTC applies only to high quality waters. (See Resolution No. 68-16.) However, the SQMP/GQMP requirements would have coalitions ensure that all growers are implementing practices that achieve BPTC. If a SQMP is required, by definition, the water body is not high quality and BPTC is not triggered.

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Similar to our earlier comments that the Draft Staff Report makes an improper presumption that all irrigated agriculture creates a discharge of waste, Key Elements 4-9 of the proposed requirements fail to account for the possibility that irrigated agriculture may not be the predominant source of the identified exceedances. As a general qualification, the requirements should state that *only* if irrigated agriculture is identified as the predominant source of the pollutant discharge should the Surface and Groundwater Quality Management Plan be required to (4) identify practices to address the constituents of concern, (5) evaluate the effectiveness of management practices, (6) describe the grower outreach strategies,

(7) track management practice implementation, (8) prepare a monitoring plan to track water quality, and (9) describe a schedule and milestones for the action taken. There is a real possibility that inputs from other point and non-point sources are contributing to the exceedances identified at monitoring sites, and identification of irrigated agriculture as the predominant source of the exceedances should be a prerequisite to taking the steps identified above.

In addition, Key Element 5 notes that acceptable approaches to the evaluation of management practice effectiveness include field studies at representative sites. (Draft Staff Report at p. D-1.) We are concerned that this language could be interpreted to mean that only field studies are acceptable, or that field studies represent the preferred approach by the Central Valley Water Board. To the extent that this section is susceptible to such an interpretation, we oppose the inclusion of that language in the Draft Staff Report. We are also concerned that Key Element 8 of the proposed GWQMP requirements could have serious cost implications. Specifically, a requirement that the GWQMP include ". . . other sites or a different depth to groundwater (e.g., monitor first encountered groundwater versus supply wells) or frequency of sample collection . . ." could result in significant expense. Finally, we are concerned that there is no requirement or limiting language that states schedules and milestones described in Key Element 9 of the GWQMP must be reasonable. Management practices may be difficult to adopt and in some cases are highly dependant on funding. As such, schedules and milestones created as a result of this proposed element must be reasonable, and the language of Appendix D should be changed to reflect this reasonableness requirement.

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f. FWQMP Requirements (Appendix D)

As a preliminary matter, we must express concern with the standard established for approval of the FWQMP. Appendix D states, "At a minimum, plans would describe those practices needed or currently in use to achieve ground and surface water quality protection." The language "to achieve water quality protection" implies that FWQMPs need to include practices that guarantee compliance with water quality objectives. As indicated previously, we do not believe this to be the appropriate standard. Instead, the goal and purpose of FWQMPs should be to control discharges of pollutants to the maximum extent practicable. This is consistent with requirements and standards imposed on municipal stormwater discharges.

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The FWQMP would require information regarding irrigation methods, acreages, and crop types. While such requirements appear to be reasonable, they fail to take into consideration the dynamic nature of farming. At best, growers can provide general information with respect to acreages farmed and the types of crops generally grown each year; however, it is not possible to account for all potential cropping patterns the grower may utilize over the next five years in an FWQMP. Further, it would not be practical or feasible to require growers to submit new FWQMPs or amendments to FWQMPs whenever farming

operations change. Likewise, it would be unreasonable and out of keeping with LTILRP goals to constrain farmers in their ability to respond to changing market conditions by altering, for example, crop choices in response to commodity price outlook.

To account for the variability and uncertainty associated with farming operations, we recommend that Appendix D be revised to require submittal of typical crop information for that agricultural operation. For example, where Appendix D would require "description of operations including, number of irrigated acres, crop types, and chemical/fertilizer application rates and practices," we recommend instead that it require similar information as follows: description of typical farming operations for the farming entity, including an estimate of irrigated acres, typical crop types, typical crop rotations, and identification of typical chemicals and/or fertilizers used for the crops identified.

If FWQMPs are required, growers should only be required to identify potential conduits of which they have knowledge or are aware. Further, as currently proposed, the requirement is extremely broad. It suggests, for example, that growers can implement actions that will prevent any contamination from entering groundwater. While we agree that management practices should be implemented to control the discharge of pollutants to the maximum extent practicable, growers cannot provide absolute certainty that the implementation of certain practices will ensure that all potential conduits do not carry contamination to groundwater. Thus, the requirement in Appendix D should be revised to state as follows: (6) identification of any potential conduits to groundwater aquifers on the property known (e.g., active, inactive, or abandoned wells; dry wells; recharge basins; or ponds) and steps taken, or to be taken, to ensure all identified potential conduits do not carry contamination to the maximum extent practicable.

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Other concerns with respect to Appendix D are as follows:

- Appendix D would require the FWQMP to include maps showing the location of irrigated production areas, discharge points, and named water bodies. Similar to comments expressed previously on the informational requirements, growers can provide maps that depict typical operations. However, it is not possible to provide maps that are not subject to change due to normal operational considerations. Also, growers can identify known discharge locations, if any exist, but may not be able to depict all potential locations due to the diffuse nature of non-point source pollution. Like the informational requirements for crop types, this provision should be revised to only require maps that depict typical farming operations at the time the FWQMP is developed and submitted to the Central Valley Water Board.

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- Appendix D would also require FWQMPs to include, "information on water quality management practices used to achieve general ranch/farm management objectives and reduce or eliminate discharge of waste to ground and surface waters." To better clarify the use of management practices, we recommend that the sentence be revised as follows: "applicable information on water quality

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management practices used to help control the discharge of pollutants to the maximum extent practicable, achieve general ranch/farm management objectives, and reduce or eliminate discharge of waste to ground and surface waters."

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- As proposed, FWQMPs would also be required to include, "measures instituted to comply with California Code of Regulations, Title 3, Section 6609 requirements for wellhead protection (from pesticide contamination) along with methods for wellhead protection from fertilizer use[]." The wellhead protection requirements from pesticide contamination are adopted, authorized, and administered by DPR. The Central Valley Water Board has no authority to determine if growers are complying with these requirements. As such, it is inappropriate for the Central Valley Water Board to require this information as part of the FWQMP. With respect to wellhead protection from fertilizer use, there currently exists no regulatory program that requires measures for such activities. Further, it would appear that such practices and/or measures would be general farm management practices to control the discharge of pollutants to the maximum extent practicable. Thus, there is no need for the FWQMP to include specific requirements for wellhead protection.

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- Finally, buried in Appendix D is the following statement: "In addition to the minimum elements described above, the Executive Officer may require ground or surface water quality monitoring to evaluate the effectiveness of the practices implemented by the grower." We find it highly inappropriate to bury this important element in the appendix. By placing the information here, the Draft PEIR fails to account for and analyze potential environmental and economic impacts associated with such monitoring requirements. As a result, the economics impact assessment greatly underestimates the RPA and its potential impact to agriculture.

96-39

H. Monitoring Provisions

It is difficult to assess the monitoring provisions in the RPA because it defers establishment of monitoring requirements until such time that individual waivers or WDRs are developed. By not providing specificity with respect to monitoring requirements, the Draft PEIR is unable to adequately assess environmental and economic impacts that may be associated with such monitoring requirements. Specifically, the monitoring provisions in the RPA state that areas with insufficient information would be required to complete "assessment monitoring or studies within 5 years of long-term program adoption." However, based on such a statement, it is impossible to ascertain the extent of monitoring that may be required—especially with respect to groundwater monitoring.

96-40

In general, we are concerned with the groundwater monitoring requirements that appear to occur at the out-set of the program. As specified in Alternative 2, it is more appropriate to first rely on information from other programs and data that already exist (e.g., GAMA, DPR, CV-Salts, Department of Public Health, Department of Toxic Substances Control) to identify and prioritize the groundwater areas of concern prior to requiring expensive and unnecessary additional groundwater monitoring. Thus, it is unnecessary for agricultural coalitions and entities to conduct groundwater monitoring to identify areas of concern. Although the RPA provides for "regional groundwater monitoring," even on a regional basis, groundwater monitoring is expensive and all efforts should be made to avoid duplicative groundwater monitoring requirements.

96-40 cont'd

I. Proposed Time Schedules for Compliance are Unreasonable

The RPA proposes time schedules for compliance with water quality objectives that are unreasonable. In general, the RPA states that time schedules should be set for a period of five to ten years but cannot exceed ten years. There is nothing in any statute or regulation that requires time schedules for non-point sources of pollution to be set at no more than ten years. In fact, for several of the parameters, it may be decades before compliance with water quality objectives can be achieved. Thus, it is unrealistic for the RPA to set an arbitrary time limit of ten years for compliance with water quality objectives.

More importantly, we believe it impractical to include time schedules as part of the LTILRP. While we agree that we should be implementing management practices to protect water quality and to work towards meeting water quality standards, it is not possible to ensure compliance with standards in the timeframes provided, if at all. At most, agriculture can implement management practices that are designed to protect and improve water quality. There is no guarantee or certainty that compliance with objectives will be achieved by implementing management practices, particularly as it relates to groundwater. As we indicated in our previous communications, it is essential for agriculture that a presumption of compliance be part of any LTILRP. In other words, where an operator is implementing management practices, there must be a presumption of compliance with water quality standards in general, and water quality objectives specifically.

96-41

Additionally, the time schedule language currently proposed conflicts internally. For example, in one paragraph it states that the Executive Officer or the Central Valley Water Board may modify the time schedules, while in another it states that all objectives must be achieved as soon as technically and economically possible but no later than the timeframes identified. However, as we indicated above, we do not support the inclusion of time schedules for meeting water quality standards as part of the LTILRP at this time. Thus, instead of clarifying the language, it should be deleted altogether.

J. RPA Continues to Ignore Issues Regarding Point of Compliance and Interpretation of Narrative Water Quality Objectives

At the beginning of the stakeholder process for the LTILRP, the agricultural representatives on the stakeholder committee expressed concerns with respect to the Central Valley Water Board's continued refusal to address issues regarding points of compliance in both surface and groundwater, the application of beneficial use designations through the tributary rule and the Sources of Drinking Water Policy, as well as issues surrounding the interpretation of narrative water quality objectives. The RPA continues to ignore these fundamental issues, which must be addressed. Our ability to comply with the terms of any LTILRP is contingent on the Central Valley Water Board reasonably designating beneficial uses and interpreting narrative water quality objectives. Otherwise, we are forced to protect water bodies for uses that do not exist and have no potential for existing, as well as complying with stringent and unreasonable numeric criteria that apply to beneficial uses not present in agricultural drains. Until the Central Valley Water Board is willing to openly discuss the designation of beneficial uses, appropriate points of compliance, and interpretation of narrative water quality objectives, the agricultural industry cannot fairly assess the RPA, or any future proposal for that matter. 96-42

IV. Conclusion

The agricultural coalitions, commodity groups, organizations, and water districts identified below appreciate the opportunity to comment on the Draft PEIR, RPA, and associated documents. As indicated above, we have significant concerns with the Draft PEIR and the RPA. However, we continue to believe that Alternative 2 provides the necessary protection for water quality, while allowing the various agricultural entities the ability to assist growers and the Central Valley Water Board in developing reasonable programs for the protection of surface and ground water in the Central Valley. Further, unlike the RPA, Alternative 2 has been analyzed in the Draft PEIR and therefore is less vulnerable to CEQA challenges than the RPA. Thus, we encourage the Central Valley Water Board to consider the comments provided above, and recommend Alternative 2 as the preferred alternative for Central Valley Water Board consideration.

If you have any specific questions with respect to these comments, please contact Theresa "Tess" A. Dunham at (916) 446-7979. Thank you.

Ms. Megan Smith
RE: Comments on the Draft PEIR for Central Valley ILRP
September 27, 2010
Page 27

Sincerely,

California Farm Bureau Federation
California Rice Commission
East San Joaquin Water Quality Coalition
Merced Irrigation District
Modesto Irrigation District
Oakdale Irrigation District
Sacramento Valley Water Quality Coalition
San Joaquin County Resource Conservation District / Delta Water Quality Coalition
South San Joaquin Irrigation District
South San Joaquin Water Quality Coalition
Turlock Irrigation District
Western Growers Association
Western Plant Health Association
Westside San Joaquin Water Quality Coalition

Enc.
cc: Pamela C. Creedon, RWQCB Executive Officer (*via email only* pcreedon@waterboards.ca.gov)
Joe Karkoski, RWQCB (*via email only* jkarkoski@waterboards.ca.gov)
Adam Laputz, RWQCB (*via email only* awlaputz@waterboards.ca.gov)
TAD:cr

3.3.5.1 Responses to Letter 96

Note: Letter 137 is a duplicate of Letter 96.

96-1

See Master Response 7.

96-2

CEQA requires that a Draft EIR include a statement of objectives; identification of the underlying purpose of the project; a general description of technical, economic, and environmental characteristics; and presentation of a reasonable range of alternatives but does not require identification of a preferred project. The various project options are discussed in detail in Chapter 3, Program Description, and are analyzed in equal detail in Chapter 5, Environmental Impacts and Mitigation Measures. The Central Valley Water Board recommended Long-term ILRP alternative is described and analyzed in the Draft PEIR, Appendix A.

Also see Master Responses 3 and 4.

96-3

See Master Responses 3, 4, 7, and 9.

96-4

See Master Response 2.

96-5

See Comment Letter 1, Response 53 and Master Response 2.

96-6

See Master Response 14; Comment Letter 45, Response 7; and Comment Letter 1, Response 54.

96-7

See Comment Letter 1, Response 54 and Master Response 11.

96-8

See Master Response 16 and Comment Letter 45, Response 7.

96-9

See Master Response 6. CEQA review would not necessarily be required in all instances of significant impact; the Central Valley Water Board would assist growers in making that determination on a case-by-case basis. Textual change made to correct ambiguity in Chapter 5.7, Vegetation and Wildlife. See Chapter 4, Revisions to the Draft Program Environmental Impact Report, page 4-9 in this Final PEIR.

The mitigation presented in the Draft PEIR regarding compliance with Clean Water Act Section 404 (Mitigation Measure BIO-MM-2, Draft PEIR page 5.7-50) does not suggest that wetland delineations would be required on active or fallowed agricultural land. The mitigation would be applicable where the management practice would be implemented in areas having wetlands or natural vegetation communities on adjacent, relatively undisturbed property (refer to the discussion under Impact BIO-3, Draft PEIR page 5.7-46).

Also see Comment Letter 107, Response 2.

96-10

See Comment Letter 45, Response 16.

96-11

The structure of Alternative 6 has been designed to allow coordination with DPR's Groundwater Protection Program and other programs that provide monitoring and management associated with irrigated agricultural operations. The development of orders (waivers/WDRs) specific to geographic areas would allow the Central Valley Water Board and third-party groups to coordinate and consider existing practices and monitoring associated with DPR, local groundwater management programs, and other programs. The Draft PEIR, Appendix A, including Alternative 6, clearly indicates the importance of coordinating with DPR in its groundwater protection program.

96-12

The proposed coordination with DPR (Draft PEIR, Appendix A, page 80), indicates that the first step would be review of water quality data. Where data indicate that pesticide use is leading to degradation of groundwater that meets or is of higher quality than water quality objectives, the state Antidegradation Policy requires that operations implement BPTC of the waste discharge. The Draft PEIR, Appendix A has been modified to clarify that the need for management practices would be determined based on the water quality goals of the Long-term ILRP. See Chapter 4, Revisions to the Draft Program Environmental Impact Report, page 4-25 in this Final PEIR.

96-13

See Comment Letter 45, Response 20.

96-14

See Comment Letter 1, Response 59.

96-15

See Master Response 17.

96-16

See Master Responses 17, 9, 4, and 7.

96-17

See Master Responses 2 and 10.

96-18

See Master Response 17.

The Program alternatives contain no requirement that growers clean up existing contamination or determine if specific groundwater quality protection practices are effective. The ILRP oversees growers' obligation to avoid further contamination.

96-19

See Comment Letter 92, Response 4.

96-20

See Comment Letter 1, Response 15.

96-21

The prohibition of discharge was included to help streamline the administration of a program that addresses tens of thousands of operations. In addition, it would be inequitable to impose regulatory requirements on growers who obtain the appropriate regulatory coverage and impose no restrictions or requirements on those who avoid complying with Central Valley Water Board requirements. Use of this authority in the manner described is discussed in the State Water Board's "Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program," so this is not an inappropriate application of this tool (State Water Resources Control Board 2004). The Board's enforcement mechanism ensures that appropriate notification and time is provided to dischargers before action is taken. At any time, the discharger can avoid the prohibition by complying with the law and obtaining the appropriate regulatory coverage for their discharge of waste.

96-22

See Master Response 12 and Comment Letter 95, Response 7.

96-23

See Comment Letter 45, Response 32.

96-24

See Comment Letter 45, Response 33.

96-25

The recommendations on prioritization (tier) systems will be considered in the development of the Long-term ILRP. Also see Comment Letter 37, Response 2.

96-26

See Comment Letter 95, Response 8.

96-27

See Comment Letter 33, Response 4.

96-28

See Comment Letter 45, Response 38.

96-29

See Comment Letter 102, Response 9 and Comment Letter 1, Response 45.

96-30

See Master Response 18.

96-31

See Master Response 18.

96-32

See Comment Letter 11, Response 2.

96-33

See Comment Letter 45, Response 43.

96-34

See Comment Letter 45, Response 38 and Comment Letter 41, Response 23 for a discussion of concerns regarding the surface and groundwater quality management requirements for Alternative 6 (Appendix D to the Draft PEIR, Appendix A).

96-35

See Comment Letter 45, Response 47.

96-36

See Comment Letter 45, Response 48.

96-37

See Comment Letter 45, Response 47.

96-38

See Comment Letter 45, Response 50.

96-39

See Comment Letter 99, Response 45.

96-40

The support for Alternative 2 will be considered in the development of the Long-term ILRP.

See Comment Letter 114, Response 10 and Comment Letter 50, Response 8.

During the development of the monitoring requirements, additional CEQA analyses may be necessary if there is a likelihood of environmental impacts not considered with specificity in the Draft PEIR.

96-41

See Master Response 13.

96-42

See Comment Letter 45, Response 55.

3.3.6 Letter 94—California Grape and Tree Fruit League, Christopher Valadez, Director of Environmental and Regulatory Affairs

Comment Letter IL94

CALIFORNIA GRAPE & TREE FRUIT LEAGUE

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978 W. Alluvial, Suite 107
Fresno, California 93711-5700

September 27, 2010

Via Email: ILRPcomments@icfi.com

ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Re: Draft Programmatic Environmental Impact Report (PEIR) and Economics Report
For the Long-Term Irrigated Lands Regulatory Program

Dear Ms. Smith:

The California Grape & Tree League (League) is a non-profit public policy association representing the state's fresh grape, deciduous tree fruit, and berry communities. The League's grower/shipper membership reflects over 85 percent of the respective fresh commodities which are grown, packed, and shipped by multi-generational family farms vital to California's economy and fresh fruit supply.

The process of developing a long-term Irrigated Lands Regulatory Program was met with concern as Central Valley Regional Water Quality Control Board (CVRWQCB) staff set an end goal of creating a new program which includes the monitoring and regulation of groundwater for quality, marking a change from the present IRLP surface water regulatory program. Throughout the stakeholder process we shared concerns regarding the new shape of the regulatory program, cost of the implementation of new program, including program fee increases to support CVRWQCB staff needed to execute program enforcement. The draft Environmental Impact Report assessment of the five identified alternatives re-emphasizes the scope of the stakeholder process, in identifying alternatives, while introducing a preferred alternative upon concluding debate and analysis of the previously identified potential program changes. We anticipated the release of the preferred alternative in order to review program details, assess cost of implementation and applicability to farming conditions in the fresh grape, deciduous tree fruit and berry sectors; and with the release we believe the economic impact analysis requires additional review. Costs of adding monitoring requirements, drilling new monitoring wells, and/or changing or amending an irrigation system are costs not fully addressed in the current economic analysis.

94-1

Fundamentally, there remains the presumption that all irrigated lands drain to groundwater. We continue to ask CVRWQCB staff to support the rationale that all irrigated lands drain to groundwater. For agricultural operations employing drip irrigation it would be assumed that irrigation applied is discharged to groundwater. We recognize the interest to input a long-term program but believe further analysis is needed to present sound data supporting the presumption of discharge before instituting a new program certain to add costs to irrigated agricultural operations. 94-2

Sincerely,

Christopher Valadez
Director of Environmental
& Regulatory Affairs

3.3.6.1 Responses to Letter 94

94-1

See Master Response 17.

94-2

See Master Response 12.

3.3.7 Letter 42—California Land Stewardship Institute, Laurel Marcus, Executive Director

Comment Letter IL42

CALIFORNIA LAND STEWARDSHIP INSTITUTE
550 GATEWAY DRIVE SUITE 108
NAPA, CA. 94558
707 253 1226

ILRP Comments
Ms. Megan Smith
ICF International
630 K Street, Suite 400
Sacramento, CA 95814

Re: Comments on the Central Valley Water Board's Irrigated Lands Regulatory Program (ILRP) Draft Program Environmental Impact Report (PIER).

September 24, 2010

Dear Ms. Smith,

The goals and objectives of the ILRP are congruent with the goals and achievements of the incentive based Fish Friendly Farming (FFF) Environmental Certification Program, run by the California Land Stewardship Institute (CLSI). The FFF program aims to reduce non-point source pollution caused by agricultural practices, hydro-modification, roads, and stream bank erosion and improve fish and wildlife habitats. The FFF program should be considered as a possible Optional Individual Certified Farm Water Quality Management Plan (FWQMP) as a means for waste discharge compliance as projected by the ILRP program so that FFF certified farms can be considered "lower priority". It is a valid and cost effective alternative to the current suggested programmatic alternatives. 42-1

The Fish Friendly Farming Program currently operates in the San Francisco Bay (Region 2) and North Coast Regions (Region 1). It has been proposed as a means of implementing the requirements of several adopted TMDL in Napa, Solano, Sonoma, and Mendocino Counties. To date, there are over 130,000 acres enrolled in the FFF program. The program entails grower outreach and education, one-on-one site evaluations, assistance with preparation of farm plans and identification and implementation schedules for Best Management Practice (BMP) implementation, stream restoration plans, and agency farm plan certification. 42-2

The product of the FFF program is to develop a farm conservation plan for each property that addresses the unique possible contaminant sources (soil conservation, creek networks, road networks, water conservation, chemical use and new plantings) of each site and recommends Best Management Practices to mitigate each source. For example, the program addresses all possible sources and pathways for chemical contamination of surface and groundwater. Required BMPs address proper agricultural chemical storage, mix and load sites, application methods and equipment calibration, chemicals used and their toxicity for fish and wildlife and alternative cultural and non chemical methods for pest and disease control. All avenues for chemical movement off site are investigated including soil erosion, direct runoff, rainfall, drift, spillage, and basic protective measures such as berms around all wells. In addition, buffers along waterways are evaluated. BMPs include recommendations to plant native riparian vegetation

along waterways to increase the riparian corridor, and/or to plant a dense grass cover crop to intercept fine sediment delivery.

The landowner supported by FFF staff, present the farm plan to the team of agency certifiers. The team consists of representatives of the National Marine Fisheries Service, the Regional Water Quality Control Board, and the County Agricultural Commissioner. The team reviews the farm plan and implementation timeline and validates its accuracy, completeness and the proposed timing of implementation. Yearly and seasonal photo-monitoring of each site is required to ensure the BMP recommendations are being implemented. Areas of focus include winterization of the farm, including all roads, creek corridors, and the progress of all projects. This provides evidence that the farmer is managing the property in compliance with the federal Clean Water Act and, in areas where there are endangered species, the Endangered Species Act.

The certification is valid for 5 years, at which time the site can apply to be re-certified. At this point, the certifiers review the plan and check to make sure that the BMPs have been implemented. Provided the farmer has made adequate progress and additional BMP recommendations are made for the next 5 years, the site will be re-certified.

In 2008, the El Dorado & Georgetown Divide Resource Conservation Districts (RCD) asked CLSI to work with them to establish the Fish Friendly Farming Program in El Dorado County in order to implement water quality improvements and demonstrate to the Regional Board through the certification process that farmers were compliant with regulations.. The primary environmental issue for agriculture in El Dorado County is water quality and to a lesser extent, wildlife habitat. El Dorado County agricultural lands are included in the Irrigated Lands Program of the Central Valley Regional Water Quality Control Board. Together, CLSI and the RCD applied for funding to the Sierra Nevada Conservancy and received a grant in 2008. The process of adapting the Fish Friendly Farming Program to fit the specific requirements of El Dorado County required a focus primarily on water quality and agricultural chemicals and the various pathways for contamination of surface and groundwater. This version of the FFF program also includes a broad variety of crops including apples, pears, prunes, peaches, cherries, walnuts, blueberries, Christmas trees and winegrapes.

The FFF program is a comprehensive and cost effective means to meet compliance for agricultural lands waste discharge requirements. It shares all of the same goals and objectives as the ILRP program and already has a proven track record in Water Board Regions 1 and 2. We request that the Fish Friendly Farming Environmental Certification Program be recommended for farmers to meet the requirements of the ILRP Program in the Central Valley Region 5.

42-2 cont'd

Sincerely,

Laurel Marcus
Executive Director

3.3.7.1 Responses to Letter 42

42-1

See Comment Letter 42, Response 2.

42-2

See Comment Letter 52, Response 6.

The support for including a third-party certifier option will be considered in the development of the Long-term ILRP.

3.3.8 Letter 49—California Rice Commission, Tim Johnson, President and CEO, and Roberta L. Firoved, Industry Affairs Manager

Comment Letter IL49

CALIFORNIA RICE COMMISSION

September 24, 2010

ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

RE: CALIFORNIA RICE COMMISSION (CRC) COMMENTS ON THE PROGRAM ENVIRONMENTAL IMPACT REPORT (PEIR) FOR THE LONG-TERM IRRIGATED LANDS REGULATORY PROGRAM (LT-ILRP)

Dear Ms. Smith:

The CRC represents the state's 2,500 family farmers and marketers who grow and mill approximately 500,000 acres of rice in California. In California, rice grows primarily north of Sacramento in an area that provides winter habitat for migrating waterfowl, shorebirds and 230 species of wildlife. In California, rice is one of the top 20 commodities and contributes one-half billion dollars annually to the state's economy.

We are greatly concerned that every alternative evaluated under the PEIR produces a significant and unavoidable impact on prime, unique and important agricultural lands. All other resource impacts, however, are mitigated. 49-1

The impact on loss of agricultural lands is estimated between 9,596 – 249,490 acres (Alternative 2 low, Alternative 5 high). Unfortunately, the Central Valley Regional Water Quality Control Board (CVRWQCB) staff preferred alternative was not scoped in the PEIR, leaving the board, public and regulated community to guess its impact on this important state resource.

Impact of this magnitude is contrary to overwhelming public opinion and developing public policy which seeks to preserve agricultural lands, the value of ecosystems services they provide, and ensure that an adequate supply of locally produced food is available to consumers.

8801 FOLSOM BLVD, SUITE 172, SACRAMENTO, CA 95826
PHONE: 916/387-2264 FAX: 916/387-2265

Ms. Megan Smith
September 24, 2010
Page 2

Finally, Mitigation and Improvement Measures outlined in **Chapter 5, Section 5.10.5**, are overly optimistic and funding is inadequate to address the level of costs that are projected to be incurred under any alternative. 49-2

Please accept the CRC **Staff Report** comments from the following:

Table 2. Top 20 crops by acreage in the Central Valley, 2007

Rice is given credit with **606,000** acres of production in **2007**. The CRC utilizes the National Agricultural Statistics Service (NASS), under the U.S. Department of Agriculture (USDA), for annual acreage reporting. In 2007, the NASS/USDA report accounted for **534,000** acres planted to rice in Butte, Colusa, Fresno, Glenn, Merced, Placer, Sacramento, San Joaquin, Stanislaus, Sutter, Tehama, Yolo and Yuba Counties. The CRC assumes that the PEIR includes wild rice acreage. Wild rice grain comes from a grass, which is different than the *Japonica*, conventional rice grain-crop the CRC represents. As a statutory organization, the CRC authority extends to mandatory membership of all conventional rice (including organic) production and the mills that handle the commodity. The CRC is a commodity specific coalition bringing continuity to 30-years of managing water quality issues for the industry. Under the LT-ILRP, the CRC membership will remain static. We will not add new members because the regulatory authority of the CRC to represent the entire rice industry remains unchanged. 49-3

Table 4. Management Plan Pesticides: Coalition and Water District Monitoring Data Summary for Sites with Two or More Samples Collected (Per Analyte) between July 2004 and June 2009

The table includes thiobencarb, a rice-specific herbicide regulated under a prohibition of discharge, the Rice Pesticides Program, through the *Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins*, by the CVRWQCB. The Rice Pesticides Program is specific to the Sacramento River Basin and includes performance goals for the herbicides thiobencarb, molinate (no longer registered), and the insecticides carbofuran (no longer registered), malathion (less than 500 treated rice acres annually) and methyl parathion (no longer used). In 2004, at the start-up of the ILRP, thiobencarb was on the list of constituents for all coalitions to monitor because the CVRWQCB staff misunderstood that the pesticide registration was exclusive to rice. The UC Davis monitoring results 49-4

depicting thiobencarb exceedances were from sample collection within a closed system. That is an irrigation system specifically established to capture and hold early field releases of thiobencarb, which is the same as sampling within a rice field under a water holding requirement. The PEIR cites thiobencarb management under the Rice Pesticides Program and outside the ILRP, so the CRC questions the relevance in including the pesticide in the LT-ILRP.

49-4 cont'd

Third-party Monitoring Group:

The CRC is inserting a comment about third-party monitoring because it relates to the previous example that describes collection of thiobencarb samples within a closed system. The example demonstrates that contracting third-party monitoring is not effective in the LT-ILRP because the coalitions have the most expertise to understand field conditions. Persons outside of production agriculture have the misperception that using the coalitions to manage the ILRP and LT-ILRP monitoring programs creates a conflict of interest. Two separate consulting firms handle the monitoring and reporting for the CRC. The consulting firm is the client to the lab so that there is no connection to the CRC, and the laboratory must perform quality control/quality assurance measures as additional safeguards. The results are transferred to the second consulting firm for recording and reporting. The CRC has no ability to collect samples, handle the samples, or the data, and the transfer of information includes communication with the CVRWQCB liaison.

49-5

Please accept the CRC **Technical Memorandum** comments from the following:

Table 2-6. Constituent of Concern Applicability by Land Type

The CRC finds it troubling that the PEIR relies on information from the Pesticide Action Network (PAN), an advocacy group, rather than the unbiased data from government agencies regulating the registration and use of pesticides. Application of this table is problematic because the constituent does not match the registered use, nor does the list coordinate with the constituents in the currently approved general order for the monitoring and reporting program (MRP) under the conditional ILRP. The list is overwhelmingly incorrect due to the use of an inaccurate advocacy group database, which is problematic because of inconsistencies with the ILRP constituents of concern where the Technical Issues Committee spent resources developing evaluation protocols and methods for analysis.

49-6

The CVRWQCB provides the CRC a resolution for a commodity specific MRP. We would hope that the inclusion of **Table 2-6** in the PEIR would not undo eight years of monitoring and reporting, and thousands of dollars of work in defining a commodity specific program with reportable improvements to water quality and the environment.

The following comments are specific to rice:

Aldrin (Group A) – Not registered on rice and not a rice pesticide
Chlordane (Group A) – Not registered on rice and not a rice pesticide
Endosulfan (Group A) – Correct: No rice; not a registered rice pesticide
Endrin (Group A) – Not registered on rice and not a rice pesticide
Heptachlor (Group A) – Not registered on rice and not a rice pesticide
Lindane (Group A) – Not registered on rice and not a rice pesticide
Toxaphene (Group A) – Not registered on rice and not a rice pesticide
Arsenic – An element monitored under the ILRP, not added to rice
Azinphos-methyl – Correct: No rice; not a registered rice pesticide
Bacteria (fecal coliform/*E. coli*) – Monitored under the ILRP
Bifenthrin (in sediment) – Correct: No rice; not a registered rice pesticide
Boron – An element monitored under the ILRP, not added to rice
Cadmium – An element monitored under the ILRP, not added to rice
Carbofuran – Not registered on rice and not a rice pesticide
Chlorpyrifos – Correct: No rice; not a registered rice pesticide
Copper – Correct: Registered for use on conventional and organic rice – and an element
Cypermethrin – Not shown on the table in the rice column; registration includes rice
DDD – Not registered on rice and not a rice pesticide
DDE – Not registered on rice and not a rice pesticide
DDT – Not registered on rice and not a rice pesticide
Demeton – Not registered on rice and not a rice pesticide
Diazinon – Correct: No rice; not a registered rice pesticide
Dieldrin – Not registered on rice and not a rice pesticide
Dimethoate – Correct: No rice; not a registered rice pesticide
Disulfoton – Correct: No rice; not a registered rice pesticide
Diuron – Correct: No rice; not a registered rice pesticide

49-6 cont'd

DO – Physical parameter monitored under the ILRP
EC – Physical parameter monitored under the ILRP
Esfenvalerate – Correct: No rice; not a registered rice pesticide
Esfenvalerate/fenvalerate, total – Correct: No rice; not a registered rice pesticide
Fenproprathin (in sediment) – Correct: No rice; not a registered rice pesticide
Group A Pesticides – Not registered on rice and not rice pesticides
Iron – An element not monitored under the ILRP, not added to rice
Lambda-cyhalothrin – Not shown on the table in the rice column; registration includes rice
Lead – An element monitored under the ILRP, not added to rice
Linuron – Not registered on rice and not a rice pesticide
Malathion – Not shown on the table in the rice column; registration includes rice; regulated under the Rice Pesticides Program
Manganese – An element not monitored under the ILRP, not added to rice
Methomyl – Correct: No rice; not a registered rice pesticide
Methyl parathion – Correct: An insecticide that includes rice; regulated under the Rice Pesticides Program
Molinate/ordram – Not registered on rice and no longer a rice pesticide
Molybdenum – An element not monitored under the ILRP, not added to rice
Nickel – An element monitored under the ILRP, not added to rice
Nutrients – Monitored under the ILRP
PCBs – Not a pesticide – a manufacture chemical banned since 1979
Permethrin – Not shown on the table in the rice column; registration includes conventional and organic rice (certified products only)
pH – Physical parameter monitored under the ILRP
Sediment – Monitored under the ILRP
Selenium – An element monitored under the ILRP, not added to rice
Simazine – Not registered on rice and not a rice pesticide
Temperature – Physical parameter monitored under the ILRP
Thiobencarb – Correct: a rice-specific herbicide; regulated under the Rice Pesticides Program
Toxicity – Monitored under the ILRP
Toxicity (algae) – Monitored under the ILRP

49-6 cont'd

Toxicity (minnow, flea, algae, sediment) – Monitored under the ILRP
Zinc – An element monitored under the ILRP, not added to rice

The list of 56 constituents shows 37 with rice land use; 17 of the 37 constituents were pesticides, but only 6 pesticides are registered for use on rice, and 3 of the 6 pesticides are regulated under the Rice Pesticides Program; 4 pesticides were not identified with rice, but registered for use on the crop; 12 elements (metals) of which 8 were monitored under the ILRP – none of the elements include rice usage except copper; physical parameters, nutrients, bacteria and toxicity were monitored under the ILRP. 49-6 cont'd

Table 2-7. Hardware Management Practice Applicability by Constituent
Under the column, Tailwater Recovery (Field, Pasture, Rice Grain), constituents in this column identified with rice include chlorpyrifos, diazinon, dimethoate, diuron, malathion, simazine, thiobencarb, toxicity and toxicity (minnow, flea, algae, sediment). The CRC understands the table summarizes management practices by constituent and land type use. Under the ILRP, the CRC manages a commodity specific coalition with monitoring specific to rice pesticides. The pesticides chlorpyrifos, diazinon, dimethoate, diuron and simazine are not used on rice. Due to the unique cultural practices of rice production, the crop has no impact on the movement of these chemicals. The list also includes thiobencarb under the columns, Pressure Irrigation (Citrus, Nuts, Trucks, Vines); Sediment Trap, Hedgerow, or Buffer; Cover-Crop or Conservation Tillage. It is unnecessary to include thiobencarb under these headings because it is a rice-specific herbicide. The CRC went to great lengths in educating the CVRWQCB staff on the rationale to remove thiobencarb from the monitoring schedule for other coalitions. The PEIR cites thiobencarb management under the Rice Pesticides Program outside the ILRP, so the CRC questions the relevance in including the pesticide in the LT-ILRP. 49-7

Please accept the CRC **PEIR** comments from the following:
Chapter 5: 5.8.4 Existing Effects of Impaired Water Quality on Fish; Sources of Information
In assessing water quality impairments on fish relevant to non-point source runoff within the program area, the assessment includes studies of the potential effects on salmonoids 49-8

because these species receive the most study. An example of pesticide use that changes over time includes the bullet, " For example, molinate (a rice pesticide) was no longer sold or distributed after June 30, 2008."

During the five-year period (1977-1982), the application of molinate more than tripled on California rice fields. The Department of Fish and Game (DFG) attributed annual carp kills in the surface drains to molinate field releases. Through assessment monitoring, University research, industry involvement, and multi-agency collaboration, management practices such as water holding requirements mitigated all negative environmental impacts of molinate. In 2003, the CRC supported cancellation of molinate with a five-year phase out due to characterization of the herbicide as a human reproductive toxicant for mixers and loaders handling the product. The cancellation took place from 2003 to 2008 with existing stocks used in 2009, and the tolerance (registration) revoked on August 31, 2009. The CRC supported the cancellation as a business decision because substantial resources were necessary to dispute the human toxicological data on an older chemistry with documented resistance to water grass (weed) control. The effects on fish were not in the assessment due to industry management practice implementation starting in 1982. Including molinate as an example in the fisheries section of the PEIR is irrelevant.

49-8 cont'd

Table 5.8.7. Effects Determinations for Pesticide Active Ingredients on Listed Central Valley Anadromous Salmonids

The United States Endangered Species Act (ESA) is administered through the Fish and Wildlife Service (FWS), in the Department of the Interior, and NOAA's National Marine Fisheries Service (NOAA Fisheries Service), in the Department of Commerce. These responsibilities include listing and delisting species, designating critical habitat, and formulating recovery plans. In 1988, the U.S. EPA established the Endangered Species Protection Program (ESPP) to promote the recovery of listed species. Under a court order, the U.S. EPA must consult with the FWS and the National Marine Fisheries Services (Services) on the effects of pesticides to endangered species. Unfortunately, the process has been plagued with lawsuits and stipulated injunctions from private interest groups.

49-9

In California, the Department of Pesticide Regulation (DPR) coordinates endangered species protection strategies with the DFG, the Department of Food and Agriculture (CDFA), and the county agricultural commissioners in accordance with a State Plan. Alternative protection strategies under this project are subject to U.S. EPA authorization and FWS approval. In 1988, DPR implemented the Endangered Species Project to provide use restrictions in specific geographic areas for protection of endangered and threatened species. Implementing a federal program through the LT-ILRP (or any CVRWQCB program) is outside the jurisdiction of the CVRWQCB.

49-9 cont'd

In addition, the CRC has concerns with the assessment of pesticides found on **Table 5.8.7**. The cited draft Biological Opinions (BiOps) are fraught with erroneous information due to the time the Services took to complete the work. For example, the BiOp for malathion is completely inadequate for rice with an overestimation of actual use. The highest malathion use was on 9,278 treated rice acres (1991), and less than 500 acres annually in recent years (DPR, Pesticide Use Report (PUR). 1989-2008).

49-10

The following comments are specific to rice:

2,4-Dichlorophenoxyacetic Acid - The herbicide is used on rice, but never reported with this specific formulation. The average rice acreage treated with 2,4-D is less than 20% of the total acres – a small amount in comparison to other crops (DPR, PUR).

Molinate – No longer registered for use.

Thiobencarb – On the list in the proposed stipulated injunction, but never connected to fish toxicity, which was evaluated by the DFG in collaboration with the CVRWQCB and CDFA from 1977-1982. In 1990, thiobencarb was adopted in the Basin Plan as the data, cited in the proposed stipulation, was developed. Water holding requirements at the field level went into effect to support the secondary maximum contaminant level (MCL) for mitigating a nuisance (taste) in drinking water.

The complainant for the proposed stipulated injunction references the US Geological Services (USGS) study for San Francisco Bay runoff from the Central Valley and local watersheds, "The USGS is studying sediment transported into the San Francisco Bay Estuary from the Sacramento and San Joaquin Rivers, which carry waters from the Central

49-11

Valley where more than 500 different pesticides are used." The citation does not specify a particular USGS report, so the CRC assumes the research was through the San Francisco Bay Estuary Priority Ecosystem Study. The USGS website cites several studies for thiobencarb sampling and monitoring during the 1990s, shortly after the adoption of the Basin Plan to implement mitigation measures for taste complaints.

49-11 cont'd

In California, thiobencarb use has decreased by 75 percent since 1997 (DPR, PUR). Thiobencarb is older chemistry with a niche herbicide for specific weed pressure, which creates a minor use on California rice. Additional thiobencarb use patterns, management practices and product re-formulations have transpired since the 1990s.

The CRC appreciates the opportunity to provide feedback and expects the CVRWQCB to accept our clarifying comments in the final version of the PEIR. We reflect on the fact that the rice industry has the only commodity specific coalition in the state. The CRC has the expertise to maintain a commodity coalition from our knowledge of pesticide regulation and many years managing water quality issues.

Sincerely,

Tim Johnson
President & CEO

Roberta L. Firoved
Industry Affairs Manager

3.3.8.1 Responses to Letter 49

49-1

See Master Response 14.

49-2

See Master Response 17.

49-3

Staff used *The 2007 USDA Cropland Data Layer* to create Table 2 of the Draft PEIR, Appendix A, which is a GIS raster image of cropland. Using this data source, the crop type 'Rice' (Crop Code #3) has a total of 606,350 acres in the Central Valley. This may include wild rice, as there does not appear to be another category called 'Wild Rice.'

The 2007 Cropland Data Layer can be obtained through the USDA NCRS Geospatial Gateway website at <http://datagateway.nrcs.usda.gov/>.

Table 2 of the Draft PEIR, Appendix A is for informational purposes only and will not be used to determine enrollment requirements for the Long-term ILRP. The comment's concern will be considered relative to utilizing this information in the future.

49-4

The purpose of the Surface Water Summary (Draft PEIR, Appendix A, pages 23–44), which includes the data in Table 4, is to summarize ILRP data collected to date. Table 4 does not include data collected by UC Davis.

As noted, thiobencarb is currently being addressed in the Sacramento Valley through the Rice Pesticide Program and no additional irrigated lands programmatic requirements are necessary to address those discharges.

49-5

The comment's support for third-party monitoring, and assertion that these programs do not create a conflict of interest as described under Comment Letter 123, Response 32, will be considered in the development of the Long-term ILRP.

49-6

See Master Responses 7 and 17.

49-7

See Master Response 17.

This comment will be considered in development of the Long-term ILRP. Table 2-7 headings for the listed pesticides chlorpyrifos, diazinon, dimethoate, diuron, malathion, simiazine, thiobencarb, and toxicity may or may not entirely apply to rice, but the Central Valley Water Board knows that thiobencarb does apply to rice.

49-8

The example is provided to illustrate that pesticide use can and does change significantly over time.

49-9

This comment will be considered in development of the Long-term ILRP.

49-10

Table 5.8-7 addresses pesticide effects, but does not provide information concerning the amount of pesticides used over time.

49-11

This comment will be considered in development of the Long-term ILRP.

3.3.9 Letter 104—California Sportfishing Protection Alliance and California Water Impact Network, Michael R. Lozeau, Lozeau Drury LLP and Bill Jennings, CSPA

Comment Letter IL104

LOZEAU DRURY

September 27, 2010

ILRP Comments
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Re: California Sportfishing Protection Alliance Comments on Draft Irrigated Lands Regulatory Program - Program Environmental Impact Report

Dear Ms. Smith, Ms. Creedon and Mr. Laputz,

On behalf of the California Sportfishing Protection Alliance and California Water Impact Network (collectively "CSPA"), thank you for this opportunity to provide comments on the "Draft Program Environmental Impact Report for the Long-term Irrigated Lands Regulatory Program ("ILRP") within the Central Valley Region" (July 28, 2010) ("PEIR") and the accompanying "Irrigated Lands Regulatory Program Long-Term Program Development Staff Report (July 2010) ("Staff Report") and the "Draft Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program" (July 2010) ("Technical Memo") prepared by ICF International. On 26 May, 2006, CSPA previously submitted comments on the Draft Central Valley Existing Conditions Report released in February 2006 and finalized in December 2006 and on 30 May, 2006 CSPA submitted scoping comments on the Long-term Irrigated Lands Regulatory Program and Associated Programmatic Environmental Impact Report, which are hereby incorporated by reference.

We have prepared these comments with the assistance of EcoNorthwest, SWAPE (Soil/Water/Air Protection Enterprise) and Steven Bond & Associates, Inc. ECONorthwest has reviewed and prepared a critique of the Technical Memo prepared

by ICF International. *See* ECONorthwest, "An Economic Review of the Draft Irrigated Lands Regulatory Program Environmental Impact Report" ("ECONorthwest Review") (Sept. 27, 2010). SWAPE and Steven Bond & Associates have reviewed and prepared comments regarding the proposed monitoring and management practice implementation. Their comments are attached hereto as Exhibits A through C and are incorporated herein in their entirety. The experts' comments require separate responses in the Final EIR.

I. INTRODUCTION.

As the Staff Report acknowledges, "a regulatory program that is lax or allows too much time for compliance can lead to an exacerbation of water quality problems and prolonged impacts on beneficial uses." Staff Report, p. 2. This is in fact the result of the first seven years of the current ILRP. Impacts have been prolonged while staff spends all of its time wrangling with informal coalitions over which the Regional Board has no enforcement authority and which have cornered a vast majority of the fees thus far provided for the ILRP from the regulated dischargers. No improving trend in water quality impacts has been reported. Instead, for seven years, the coalitions have managed to steer the program to focus exclusively regional monitoring while avoiding farm-specific monitoring or information collection. The regional monitoring has further documented the extensive pollution already apparent in November 2000 when CSPA first petitioned the Regional Board to terminate the obsolete and water quality-damaging agricultural waiver from 1982.

Since the inception of the ILRP in 2003, staff and the Regional Board have been reticent in mandating that best practicable controls and technology ("BPTC") be installed and implemented by individual farms, reported to the Board and monitored for their effectiveness. Since 2003, CSPA and numerous experts have stated the obvious – any program that refuses to require dischargers to implement BPTC and confirm its effectiveness is bound to fail or at least delay for a very long time compliance with the Central Valley's water quality standards and antidegradation requirement. 104-1

CSPA has now stood by for seven years and observed each of its concerns coming true. After seven years, the Regional Board does not have any idea whether any farms have implemented any specific management measures. Assuming some measures are in place, the Board does not know whether they are working to reduce pollution, comply with applicable water quality standards or qualify as BPTC. And the current program's exclusive reliance on regional monitoring will never inform the Regional Board about the presence or effectiveness of management measures miles upstream.

The various coalitions have produced watershed management plans but, invariably, each of those plans fizzles in its follow-up to enforce implementation of management measures by specific farms. The plans indicate the coalitions will coordinate various meetings with a subset of farms and perhaps do some follow-up visits on site. However, because the coalitions exist in some extra-legal realm, none of their members need to do anything they say. The Board may or may not know about

which farms failed to implement any effective management measures. And it is virtually certain that the Regional Board, having based its entire program on coalitions, would not likely eliminate a coalition for an entire section of the Central Valley. 104-1 cont'd

According to staff, after seven years, the Board is preparing to proceed with a single enforcement action including proposed civil penalties for one recalcitrant discharger. It is CSPA's understanding that enforcement action apparently is based on a tip from a water district and the violations could not have been discovered by the Regional Board based on the information required under the existing coalition-based program.

Now, staff is proposing to build on this record of lack of progress by proposing more of the same. It is clear from the PEIR, the bias evident in the accompanying economic analysis and staff's interpretations of the objectives identified by the coalition-dominated stakeholder group to promote the status quo, that staff is not focused on a program that achieves water quality objectives and protects beneficial uses consistent with the Regional Board's primary mission. Instead, staff is focused on proposing a program that is acceptable to the irrigated lands dischargers. The current program and staff's proposal unfortunately give real meaning to the phrase, "letting the fox guard the hen house." If the Regional Board chooses an ILRP alternative that does not have all individual farms reporting to the Regional Board on their specific management measures, *i.e.*, a farm water quality management plan ("FWQMP"), the Regional Board will not know in a timely manner or perhaps at all what any specific farm is planning on implementing. If the ILRP does not require individual farms to report on what measures they in fact implemented or installed, then the Regional Board will not know in a timely manner or perhaps at all what BMPs have been implemented throughout the Central Valley. And if the Regional Board does not require dischargers to gather water quality data that evaluates the performance of installed management measures, the Regional Board will never know what if any pollution reductions have resulted and whether the measures achieve the BPTC standard. 104-2

CSPA's frustration is exacerbated by staff's decision to circulate an environmental impact report that snubs its nose at CEQA's requirements and fails to provide the Regional Board the basic comparative tool to assist it in devising an ILRP that will work to protect water quality while balancing – not pandering – to the possible costs that the agricultural dischargers may have to bear for their pollution. CSPA, however, is not interested in simply critiquing every step that staff takes. CSPA, with the help of its consultants and almost a decade of constructive engagement on the irrigated lands pollution problem, has prepared its own alternative that balances the needs for firm regulatory action while allowing prioritization based on already measured regional pollution problems and basic monitoring needs to balance and alleviate some of the potential costs. We appreciate the Board's and staff's consideration of the following comments and proposals.

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II. CSPA'S PROPOSED (EFFECTIVE, PROTECTIVE AND LEGALLY ADEQUATE) IRRIGATED LANDS REGULATORY PROGRAM.

As is described below in CSPA's comments on the PEIR, the PEIR's proposed alternatives do not evaluate or provide the Regional Board a reasonable range of alternatives to the current ILRP. The following alternative should be included in the PEIR's evaluation. This alternative could be appropriately labeled "Direct Oversight and Prioritized Farm Monitoring," and on the spectrum of alternatives presented in the PEIR falls somewhere between Alternatives 3 and 4 and Alternative 5, depending on the specific component that is being addressed.

1. Individual Growers Covered Not Third Parties: Individual growers would apply for coverage. No third-party applications would be authorized. CSPA generally agrees with the application information outlined in the PEIR. *See* PEIR, p. 3-15.

2. Farm Water Quality Management Plans (FWQMPs): Under this alternative, growers would be required to develop and implement individual FWQMPs in order to minimize discharge of waste to groundwater and surface water from irrigated agricultural lands. FWQMPs for surface water should be completed within 6 months of issuance of the WDR/conditional waiver and submitted to the Board. The groundwater component could be phased to be completed not later than one year from the WDR/conditional waiver issuance date. The contents of the FWQMPs would be consistent with the contents described in the PEIR. PEIR, p. 3-15. Even though each farm would have its own plan, neighboring farms could still agree on joint practices that address multiple farms. As described in PEIR, "[m]anagement practices could be instituted on an individual basis or could be installed to serve a group of growers discharging to a single location." PEIR, p. 3-16. As the State Board's Policy For Implementation And Enforcement of The Nonpoint Source Pollution Control Program (May 20, 2004) ("NPS Policy") states, "[a] first step in the education process offered by these programs often consists of discharger assessment of their lands or operations to determine NPS problems, followed by development of a plan to correct those problems." NPS Policy, p. 11 (emphasis added). The Board already has ignored this first step for the last 7 years. In regard to agriculture, the NPS Policy effectively requires a FWQMP: "MPs must be tailored to a specific site and circumstances, and justification for the use of a particular category or type of MP must show that the MP has been successfully used in comparable circumstances. If an MP has not previously been used, documentation to substantiate its efficacy must be provided by the discharger." NPS Policy, p. 12 (emphasis added).

104-3

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3. Tiered Approach: This alternative would regulate the discharge of waste to surface water and groundwater using a tiered approach. Fields would be placed in one of three tiers based on their threat to water quality. The tiers represent fields with minimal (Tier 1), low (Tier 2), and high (Tier 3) potential threat to water quality, along the lines proposed in the PEIR for Alternative 4. PEIR, pp. 3-17 – 3-18. The tiers would be used to adjust the monitoring requirements, assist the dischargers in determining the level of management measures necessary to meet BPTC, and assist the Regional Board in prioritizing enforcement inspections.

4. Non-Water Quality Monitoring: As proposed in the PEIR's Alternative 4, all growers would conduct nutrient tracking, pesticide tracking and implemented tracking of management practices. Again, this information is necessary for a discharger or the Regional Board to evaluate the rationale of a discharger's FWQMP. As the NPS Policy emphasizes, "[i]t is important to recognize that development of a plan is only the first step in developing an implementation program that addresses a discharger's NPS pollution discharges. Implementation of the plan, including any necessary iterative steps to adjust and improve the plan and/or implementation must follow the planning stage." NPS Policy, p. 11.

5. Surface Effluent Quality Monitoring: Within areas where Coalitions are currently required to prepare and implement a management plan, all Tier 2 and 3 farms within that management area that are discharging any pollutant which triggered the management plan, must prepare and implement a discharge monitoring plan for the pollutants governed by the management plan as well as basic parameters that serve as indicators of pollution discharges. The basic parameters would include, for example, flow, toxicity, total nitrogen, nitrate-nitrite, total ammonia, total phosphorous, soluble ortho-phosphate, temperature, turbidity, pH, electrical conductivity, coliform if livestock is present and any applied pesticides and metals. If no toxicity is identified in the initial year, toxicity testing could be dropped for several years. The monitoring plan would include monitoring of effluent discharges at a point downgradient of implementation of BMPs. Where possible, monitoring of influent to any BMP also must be included. CSPA agrees with the proposed number of samples per season outlined in the PEIR. PEIR, p. 3-24. However, like Tier 3, sampling by Tier 2 growers should be every year. Only by direct monitoring of site-specific BMPs can the Regional Board comply with the NPS Policy, where it states that "if the program relies upon dischargers' use of MPs, there should be a strong correlation between the specific MPs implemented and the relevant water quality requirements." NPS Policy, p. 11. Likewise, effluent data of BMP effectiveness within areas known already to be degraded is necessary to implement the state

104-3 cont'd

antidegradation requirement, Resolution No. 68-16, in particular its BPTC requirement as well as its nondegradation provision.

6. Groundwater Monitoring: Growers who qualify as Tier 2 or Tier 3 for groundwater pollution should be required to conduct individual monitoring annually as described for the Tier 3 groundwater growers in the PEIR. PEIR, p. 3-25. All farms should do one season of sampling any existing wells on their property to determine their tier level. All farms also should be required to evaluate any existing public water supply data regarding the presence of pesticides or other pollutants in nearby groundwater. Any regional monitoring should be conducted by the Regional Board or its consultants or other qualified governmental research entities and paid for by a portion of the permit fees collected annually from the dischargers.

7. No Agency "Approval" of Plans: Although staff should review FWQMP or monitoring plans in general, this alternative would not require the Regional Board to approve either an FWQMP or monitoring plan. The minimum conditions of the FWQMP should be clearly set forth in the conditional waiver or general WDRs and staff should "review" as part of their enforcement follow-up. By employing the Board's enforcement options to address any violators who, for example, fail to prepare a good faith FWQMP, the Board also would be in a position to recover the staff costs of those enforcement efforts.

104-3 cont'd

8. Coordination With Dischargers Folded Into Prioritized Inspection and Enforcement by Regional Board: Along those same lines, any follow-up or coordination with growers re compliance would be part of the annual inspection effort. Compliance inspections would include appropriate compliance advice and be implemented consistent with State Board's existing enforcement policy. Growers would have to allow the Regional Board access to inspect. Prioritization of inspections and level of enforcement actions would be up to the Regional Board. Prioritization would be much easier because staff would already have farm specific FWQMPs and effluent data within the management areas where problems already have been identified, which data would make it much easier for Board staff to prioritize inspections and possible enforcement.

9. Regional Monitoring By Board Expanded to All Dischargers: There is no reason why WDRs or waivers in the ILRP should incorporate a regional monitoring program. No NPDES permits require all municipalities to conduct regional monitoring as part of their permits (CSPA is not suggesting any changes to receiving water quality monitoring currently required by most major NPDES permittees). The industrial storm water and construction storm water permit also do not include such a component. That being said, all of these dischargers should be

contributing a portion of their permitting fees toward an objective and agency-controlled (not discharger-controlled) regional monitoring program. Fees for all of these permittees should be assessed annually. Regional monitoring, including toxicity monitoring, would be conducted by the Regional Board, its consultants or other governmental research entities. CSPA believes regional monitoring is important to determining the overall health of waterways in the Central Valley. However, its inclusion in permits for irrigated lands dischargers takes away resources that need to be focused on implementing BMPs and evaluating their effectiveness at the points of discharge. It also would be fairer that all sources of pollution to the Valley's ambient waters contribute a proportionate share of the funds necessary to conduct regional monitoring. Lastly, by consolidating that program within the Regional Board and other non-discharger agencies – rather than under the current program with inexperienced coalitions made up of discharger representatives – the objectivity of the program will be maintained. Placing regional monitoring in another program outside of the ILRP will of course free up a vast quantity of time currently spent by staff attempting to track the coalitions' various monitoring efforts.

104-3 cont'd

10. Request Additional Fee Authority: Critical to any alternative selected by the Regional Board is a frank request to the State Board to increase current fees to cover all of the costs of the program. It is unreasonable to base a regulatory program regulating the largest source of pollution to Central Valley waters on the political reluctance of the Board or Administration to assess appropriate fees to support a regulatory program that is capable of enforcing statutory and regulatory requirements. The fees for the irrigated lands dischargers, as well as fees on existing NPDES permittees, including stormwater permittees, should also be adjusted to accommodate a separate regional monitoring program.

The Regional Board's review and selection of the above alternative would address many of the legal flaws that currently hamper staff's proposal as well as most of the PEIR's alternatives, discussed at length below. More importantly, CSPA believes that, unlike staff's proposal or Alternatives 1 through 4 of the PEIR, the above alternative would have a reasonable chance of achieving significant reductions in irrigated lands pollution, achieving water quality standards and improving the region's overall economy and quality of life without any significant impact on the agricultural industry.

III. THE PEIR FAILS TO COMPLY WITH CEQA'S PROCEDURAL AND SUBSTANTIVE REQUIREMENTS.

104-4

The PEIR fails as an analytical document under CEQA. Arguably, rather than assist the Regional Board with making the tough decisions required to properly regulate the irrigated farm dischargers and ensure compliance with the high quality waters policy

and water quality standards, the PEIR erects a barrier to objective evaluation. Several flaws are worth noting right up front. First is the PEIR's failure to identify a proposed project or an environmentally superior alternative. These omissions make the PEIR unrecognizable as an EIR under CEQA.

104-4 cont'd

The second most egregious flaw stems from the PEIR's premise that the current waiver (Alternative 1) will lead to implementation of the same best practicable control technologies as, for example, Alternative 5. This is entirely baseless given the fact that seven years into implementing Alternative 1, the Regional Board's staff cannot point to a single piece of evidence documenting the implementation of any management practices. Even the much touted management plans that already have been approved by staff under the existing waiver each address management practices by bobbing and weaving – replacing BPTC implementation and effectiveness monitoring with informal office meetings with groups of growers. Occasional meetings cannot verify the implementation or effectiveness of a management practice on a specific farm.

104-5

Similarly, the PEIR assumes that the four alternatives that rely on regional monitoring, rather than farm specific monitoring, will be able to evaluate the implementation of BPTC equally as well as Alternative 5, the one alternative that requires edge of field monitoring. Although as explained above, CSPA does not believe the universal and expansive monitoring proposed by Alternative 5 is necessary to take the program to its next effective level, CSPA believes it is obvious that only by monitoring the effectiveness of a claimed BPTC at its point of discharge can the Regional Board or its staff claim to ensure it is in fact BPTC and know what effect the discharge is having on compliance with water quality objectives. It also is even more evident that a regional monitoring location 10, 20, or 30 miles downstream of a specific farm tells neither the agency, the farm nor the general public about the presence or effectiveness of any management measures that may be installed there and whether they amount to BPTC.

These few concerns are only the highlights of a long list of deficiencies in the PEIR. The following addresses each of CSPA's concerns in turn.

A. General Purposes and Standards Under CEQA.

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an environmental impact report ("EIR") (except in certain limited circumstances). *See, e.g.*, Pub. Res. Code § 21100. The EIR is the very heart of CEQA. *Dunn-Edwards v. BAAQMD* (1992) 9 Cal.App.4th 644, 652. "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." *Communities for a Better Environment v. Calif. Resources Agency* (2002) 103 Cal.App.4th 98, 109.

104-6

CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project.

14 Cal. Code Regs. ("CEQA Guidelines") § 15002(a)(1). "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR 'protects not only the environment but also informed self-government.'" *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564. The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." *Berkeley Keep Jets Over the Bay v. Bd. of Port Comm'rs.* (2001) 91 Cal.App.4th 1344, 1354 ("Berkeley Jets"); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

Second, CEQA requires public agencies to avoid or reduce environmental damage when "feasible" by requiring "environmentally superior" alternatives and all feasible mitigation measures. CEQA Guidelines § 15002(a)(2) and (3); *See also Berkeley Jets*, 91 Cal.App.4th 1344, 1354; *Citizens of Goleta Valley*, 52 Cal.3d at 564. The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to "identify ways that environmental damage can be avoided or significantly reduced." Guidelines §15002(a)(2). If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns." Pub.Res.Code § 21081; CEQA Guidelines § 15092(b)(2)(A) & (B).

104-6 cont'd

While the courts review an EIR using an "abuse of discretion" standard, "the reviewing court is not to 'uncritically rely on every study or analysis presented by a project proponent in support of its position. A 'clearly inadequate or unsupported study is entitled to no judicial deference.'" *Berkeley Jets*, 91 Cal.App.4th at 1355 (emphasis added), quoting, *Laurel Heights Improvement Assn. v. Regents of University of California*, 47 Cal. 3d 376, 391 409, fn. 12 (1988). As the court stated in *Berkeley Jets*, 91 Cal.App.4th at 1355:

> A prejudicial abuse of discretion occurs "if the failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process." (*San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal. App. 4th 713, 722]; *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal. App. 4th 1109, 1117; *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal. App. 4th 931, 946).

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B. The PEIR fails to include a stable project description - indeed, no proposed project is included.

The PEIR does not evaluate a proposed project. The PEIR attempts to portray this omission as a benefit: "Rather than the typical EIR approach of starting with a project and then looking at alternatives to that project, this draft PEIR will be used as a tool to inform decision makers during the selection process." PEIR, p. 2-1. *See also* p. 2-5 ("In this document, ... no preferred project has been identified by the Lead Agency from among the considered alternatives"). The drafters overlook, however, that CEQA sets forth the necessary contents of an EIR that can properly serve as a tool to inform the Regional Board. The drafters, staff and the Regional Board do not have any authority to omit a description of the proposed project from the PEIR.

"An accurate, stable and finite project description is the *sine qua non* of an informative and legally adequate EIR." *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 192; *Berkeley Jets*, 91 Cal.App.4th at 1354; *Sacramento Old City Assn. v. City Council* (1991) 229 Cal. App. 3d 1011, 1023; *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal. App. 4th 182, 201. "[A] curtailed or distorted project description," on the other hand, "may stultify the objectives of the reporting process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental costs, consider mitigation measures, assess the advantage of terminating the proposal (*i.e.*, the "no project" alternative) and weigh other alternatives in the balance." *Id. See also*, CEQA section 15124; *City of Santee v. County of San Diego*, 263 Cal.Rptr 340 (1989). As one commenter has noted: 104-7

> The adequacy of an EIR's project description is closely linked to the adequacy of the EIR's analysis of the project's environmental effects. If the description is inadequate because it fails to discuss the complete project, the environmental analysis will probably reflect the same mistake. (Kostka and Zischke, "Practice Under the California Environmental Quality Act," p. 474 (8/99 update).)

A "rigorous analysis" is required to dispose of an impact as insignificant. *Kings County Farm Bureau v. City of Hanford*, 221 Cal.App.3d 692 (1990). Such a rigorous analysis is not possible if the project description is inaccurate, inconsistent, misleading or, in the case of the PEIR, completely absent.

C. The Objectives Borrowed From The Stakeholder Process Attempt To Lend Support To Purported Benefits of Elements of Alternative 1 – Including Its Regional Planning Basis And Lack Of Farm Specific Information of Any Sort – Which Are Its Main Faults. 104-8

The PEIR's objectives rely heavily on objectives formulated through the stakeholder process coordinated by the Regional Board's staff. The stakeholder process was dominated by agricultural interests. http://www.swrcb.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/advisory_

wrkgrp_member_lst.pdf; *See, e.g.* 11 May 2010 Long-term ILRP Meeting Attendees (http://www.swrcb.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/11may10_stakeholder_mtg/11may10_sum.pdf). Although CSPA, for example, nominally is identified as one of the stakeholders involved in the process, CSPA was one of many groups that did not have the resources to attend numerous meetings, conduct multiple reviews of numerous documents, and participate actively in the stakeholder process. Possibly as a result of the lack of representation from a broader spectrum of stakeholders, CSPA is concerned with language included in the objectives that biases the selection of an alternative in favor of those that do not address compliance with all water quality objectives throughout the region, that water down the high quality waters policy requirement that implementation of BPTC be ensured, and that include only regional monitoring. 104-8 cont'd

An overly narrow definition of project objectives renders the alternatives analysis inadequate. To narrowly define the primary "objective" of the proposed project itself constitutes a violation of CEQA since such a restrictive formulation would improperly foreclose consideration of alternatives. *See City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1438 (holding that when project objectives are defined too narrowly an EIR's treatment of analysis may also be inadequate). As a leading treatise on CEQA compliance cautions, "[t]he case law makes clear that... overly narrow objectives may unduly circumscribe the agency's consideration of project alternatives." (Remy, Thomas, Moose & Manley, Guide to CEQA (Solano Books, 2007), p. 589).

1. The project's objective to restore or maintain "appropriate" beneficial uses qualifies the Regional Board's duty to maintain all existing or designated beneficial uses.

The first objective identified for the ILRP is to "[r]estore and/or maintain appropriate beneficial uses established in Central Valley Water Board water quality control plans by ensuring that all state waters meet applicable water quality objectives." PEIR, p. 1-2. CSPA is concerned with the PEIR's inclusion of the term "appropriate." Neither the Water Code nor the Basin Plan qualify the Regional Boards' or dischargers' obligation to assure attainment of water quality standards by deeming some designated beneficial uses as inappropriate. This language should be revised to clarify that all designated or existing uses must be protected, including those designated by way of the Basin Plan's tributary rule. 104-9

2. The objective to encourage implementation of BMPs is inconsistent with Resolution No. 86-16's duty that the Regional Board ensure implementation of all best practicable control technologies.

The second objective is to "[e]ncourage implementation of management practices. . ." PEIR, p. 1-2. The notion that the Regional Board should limit its authority to "encouraging" the implementation of BMPs appears inconsistent with its duties under Porter-Cologne. The Regional Board must establish requirements that implement the 104-10

water quality objectives. Water Code § 13263(a) ("[t]he requirements shall implement any relevant water quality control plans. . . ."); § 13269(a) (waivers must be "consistent with any applicable state or regional water quality control plan . . ."). Merely encouraging BMPs will not achieve objectives.

104-10 cont'd

3. The objective to provide incentives to minimize waste discharges cannot be construed to allow less monitoring without any proof that waste discharges have been minimized.

The third objective includes to "[p]rovide incentives (i.e., financial assistance, monitoring reductions, certification, or technical help) for agricultural operations to minimize waste discharge to state waters from their operations." PEIR, p. 1-2. By specifying the incentives, CSPA believes this objective greases the skids for an alternative that trades away important components of any successful program. In particular, by specifically trading away monitoring of specific discharges, the objective directly undermines the Regional Board's ability to implement the high quality waters policy's BPTC requirement as well as the Nonpoint Source Plan's monitoring requirements. CSPA believes an order with clear requirements is incentive enough and this objective merely opens the door to alternatives that violate relevant law and will once again prove ineffective. Any incentives should be based on encouraging growers to pollute less, not, for example, agreeing to give up essential site specific monitoring for participation in a less effective regional monitoring program.

104-11

4. If the objective to coordinate with other regional programs means to mimic the regional scope of other ineffective pollution control programs, then this objective is inconsistent with the other three objectives.

The fifth objective is to "[p]romote coordination with other regulatory and non-regulatory programs associated with agricultural operations . . . to minimize duplicative regulatory oversight while ensuring program effectiveness." PEIR, p. 1-2. This objective, although sounding innocuous, is interpreted by staff as favoring alternatives that take a regional perspective like other programs referenced in the objective. *See* Staff Report, p. 103 (Alternatives 1 and 2, "[r]egional configuration for water quality plans and monitoring would facilitate efficient coordination with other programs operating at the regional level" and Alternatives 3-5, "...the farm-level management would not promote this coordination.") Unfortunately, the record is clear that none of the other regional efforts have been successful at preventing the widespread surface water pollution and toxicity from irrigated lands. If coordination with regional programs means that the program must replicate the regional scales of other unsuccessful programs and thus replicate their inability to protect water quality since their inception, then this objective is inappropriate and inconsistent with the objective to restore water quality and meet water quality standards. The objective should be clarified to promote coordination without necessarily copying the ineffective regional programs already in place.

104-12

D. The PEIR fails to identify the superior alternative.

By choosing not to propose a project, it is hardly surprising that the PEIR does not identify the superior environmental alternative. One of CEQA's fundamental requirements is that the DEIR must identify the "environmentally superior alternative." CEQA Guidelines §1526.6(e)(2); Kostka & Zischke, *Practice Under the California Environmental Quality Act* §15.37 (Cont. Educ. Of the Bar, 2008). Typically, a DEIR identifies the environmentally superior alternative, which is analyzed in detail, while other project alternatives receive more cursory review.

The lead agency is required to select the environmentally preferable alternative unless it is infeasible. A "feasible" alternative is one that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. Pub. Res. Code § 21061.1; CEQA Guidelines § 15364. California courts provide guidance on how to apply these factors in determining whether an alternative or mitigation measure is economically feasible. 104-13

Since the PEIR fails to identify the environmentally superior alternative, there is not adequate analysis of its impacts or feasibility. *See Burger v. County of Mendocino* (1975) 45 Cal.App.3d 322 (county's approval of an 80 unit hotel project over a smaller 64 unit alternative was not supported by substantial evidence); *County of El Dorado v. Dept. of Transp.* (2005) 133 Cal.App.4th 1376 (agency must consider small alternative to casino project). Here, although suffering from its own defects (*see infra*, Section IV), the economic analysis prepared for the Regional Board indicates that all of the alternatives identified in the PEIR are economically feasible. Indeed, the alternatives with the most regulatory oversight expand the overall economy of the Central Valley. Because the alternatives are all feasible, the PEIR needed to select an environmentally preferable alternative.

E. The PEIR Does Not Provide Meaningful Comparative Analysis of the Selected Alternatives Because the Assumption That All Five Alternatives Would Be Equally Effective at Implementing BPTC and Achieving Standards is Unsupported by Any Evidence

As noted above, the PEIR fails to facilitate the Regional Board's selection of a new ILRP because the PEIR is based on a fiction that any program – no matter how far removed from the discharge locations and no matter how hard it may avoid documenting and measuring the implementation and effectiveness of BMPs – will result in the same level of pollution control. That core fiction does not allow for a meaningful comparative analysis by the Regional Board of the various alternatives. 104-14

CEQA requires that an EIR provide a discussion of project alternatives that allows meaningful analysis. *Laurel Heights I*, 47 Cal.3d at 403. The analysis of project alternatives must contain an accurate quantitative assessment of the impacts of the

alternatives. In *Kings County Farm Bureau*, 221 Cal.App.3d at 733-735, the court found the EIR's discussion of a natural gas alternative to a coal-fired power plant project to be inadequate because it lacked necessary "quantitative, comparative analysis" of air emissions and water use.

The PEIR does not attempt to estimate the relative effectiveness of the five alternatives. It generally assumes that they will all lead to sufficient pollution reductions. For example, the PEIR "assume[s] that continuation of the program would result in implementation of a greater number of surface water management practices than are present under baseline conditions, due to continued use of the program's monitoring feedback loops." PEIR, p. 5.7-45. Given the current absence of information about any BMPs actually installed, never mind whether they amount to BPTC, after seven years of implementing Alternative 1, the PEIR's assumption is entirely unsupported. The PEIR also asserts that "[u]nder all program alternatives, when a constituent of concern is identified through monitoring, management practices would be used to reduce the level of that constituent in surface water or groundwater." PEIR, p. 5.7-43. The PEIR repeats that, for each alternative, the "[p]otential impacts related to vegetation and wildlife under Alternative 3 are expected to be as described for Alternative 2. Like Alternative 2, Alternative 3 would implement water quality management plans that would result in a beneficial impact on surface water quality and groundwater quality, which would ultimately benefit both vegetation and wildlife communities." PEIR, p. 5.7-48. By making believe that all of the alternatives will have a beneficial effect on water quality – despite their obvious differences – the PEIR makes no effort to compare the relative effectiveness and certainty of each alternative in meeting standards or reducing pollution.

104-14 cont'd

Obviously, of the flawed alternatives included in the PEIR, some have more certainty of achieving pollution reductions than others. Nothing in the record demonstrates that Alternative 1, seven years after its enactment, has reduced the volume or toxicity of pollution discharges from irrigated lands. There is no evidence in the Regional Board's files or discussed in the PEIR of what, if any, management practices have been or will be installed under the existing program. There is no discussion of evidence of any observable trends in ambient water quality conditions related to the existing program. There is certainly no evidence of any data showing any trends in pollution reductions at the edge of fields based on management measures applied to those fields. As a result, all of the evidence is that implementation of Alternative 1 and the even weaker Alternative 2 will most likely allow increases in pollution.

104-15

Contrary to the claims that all of the alternatives are interchangeable from a water quality perspective, one section of the PEIR discussing impacts to fish acknowledges that some alternatives (Alternatives 4 and 5) will "probably be greater." PEIR, pp. 5.8-52-53. Although still sorely lacking in providing the "quantitative, comparative analysis" required by CEQA, the fisheries section does at least

acknowledge that additional monitoring and additional management practices will result in less pollution being discharged.

> given the probability of increased monitoring of individual farms, and especially those at higher risk of generating significant impacts—in addition to wellhead protection, nutrient management plans, tracking of nutrient and pesticide application, and monitoring of individual wells—the positive benefit of Impact FISH1 (improved water quality) would probably be greater under Alternative 4 than under Alternative 2 or Alternative 3.

PEIR, p. 5.8-52. Likewise, contrary to the discussion of water quality, the PEIR does acknowledge in the fisheries discussion that "the positive benefit of Impact FISH1 (improved water quality) probably would be greater under Alternative 5 than under any other alternative." PEIR, p. 5.8-53. These acknowledgements contradict the PEIR's earlier unreasonable assertions that the water quality benefits of each of the alternatives are similar despite their drastic differences in monitoring requirements and management practices oversight. The PEIR's refusal to acknowledge the failure of the existing program to document any BMP implementation or water quality improvements frustrates rather than facilitates the Regional Board's decision-making. A true quantitative comparison of alternatives 2, 3, and 4 incorporating one or more of the main flaws of Alternative 1, including for example reliance solely on regional monitoring to detect and evaluate BMPs, would demonstrate they will prove equally ineffective. CSPA believes the PEIR should be rewritten to include the required comparative analysis on staff's proposed alternative (perhaps with some improvements – *see* Section V below), CSPA's proposed alternative (Section II above), and perhaps one or two other of the existing alternatives.

104-15 cont'd

F. The Regional Board May Not May Not Approve Four Out Of Five Of The Proferred Alternatives Because They Would Conflict With Other Laws, i.e. Porter-Cologne.

A lead agency may not approve a project with significant unavoidable impacts unless it is "otherwise permissible under applicable laws and regulations." CEQA §21002.1(c). Likewise, as the PEIR acknowledges, "[t]o be considered as an alternative under CEQA, ILRP alternatives . . . must . . . meet statutory requirements established in applicable state policy and regulations (e.g., . . ., the State Water Resources Control Board *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program* [State Water Board 2004], and the State Antidegradation Policy [State Water Board 1968])." PEIR, p. 2-8.

104-16

The PEIR states that all of the alternatives will have a significant unavoidable impact on prime agricultural lands. PEIR, Summary, p. 1-13. CSPA also believes that every alternative considered in the PEIR will have unavoidable impacts to water quality and fisheries, at least in the near term and for several of the alternatives for the indefinite future. As discussed below, Alternatives 1 through 4 all violate the State's antidegradation policy and the Nonpoint Source Control program. Therefore, only one

of the alternatives considered by the Regional Board (at least as currently formulated) can be approved despite any significant unavoidable impacts – Alternative 5. 104-16 cont'd

1. The first four alternatives all violate the state's antidegradation policy.

The State Board's "Statement of Policy With Respect to Maintaining High Quality of Waters in California" provides, in relevant part, that:

> Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

Resolution No. 68-16 (Oct. 28, 1968) (emphasis added). As Regional Board staff explains, "In determining BPTC, the discharger should compare the proposed method to existing proven technology; evaluate performance data (through treatability studies), compare alternative methods of treatment or control, and consider the method currently used by the discharger or similarly situated dischargers." Staff Report, p. 62 (citing SWRCB Order Nos. WQ 81-5, WQ 82-5, WQ 90-6, and WQ 2000-07)." To comply with Resolution No. 68-16's BPTC mandate, the Regional Board "must require the discharger to demonstrate that the proposed manner of compliance constitutes BPTC." *Id.* (citing SWRCB Order No. WQ 2000-7) (emphasis added). *See also id.* p. 67 ("where degradation is occurring, irrigated agricultural operators must *demonstrate* that any set of practices proposed for implementation represents BPTC and will be required to consider existing water quality data or conduct monitoring in support of this demonstration"). 104-17

Under the existing program, not one irrigated lands discharger has complied with Resolution No. 68-16's BPTC requirement. The Regional Board is entirely in the dark regarding what, if any, measures have been implemented never mind whether they amount to BPTC. Given that the existing management plans' only map out a series of meetings between coalitions and groups of dischargers to discuss measures the dischargers may have planned, there is nothing in Alternative 1 or its mirror proposal, Alternative 2, that would cure these universal violations of the BPTC requirement. *See* Staff Report, p. 115 ("Alternative 1 would not implement the iterative BPTC and monitoring process for addressing degradation to groundwater").

Alternatives 3 and 4 also succumb to the absurd notion that downstream regional monitoring alone can somehow implement Resolution No. 68-16's BPTC requirement. Although these alternatives both close some of the gap in implementing the BPTC requirement by requiring irrigated lands dischargers to prepare farm-specific Farm Water Quality Management Plans ("FWQMPs"), the omission of monitoring to determine the effectiveness of those measures means the Regional Board will not know whether

the measures are BPTC. Alternative 3 omits any surface or groundwater quality monitoring, essentially erasing the BPTC requirement. *See* Staff Report, p. 116 ("Surface and/or groundwater quality monitoring would not be required under Alternative 3 to determine effectiveness of BPTC and whether degradation is occurring"). Alternative 4, to the extent it allows dischargers to forego farm specific monitoring in exchange for participating in regional monitoring, cannot reasonably be claimed to identify BPTC many miles upstream of the monitoring location. Nor would measurements of pollution downstream at levels below applicable criteria indicate whether or not waters upstream – shallower and perhaps closer to various pollution discharges – were being degraded by irrigated lands discharges. Any resort to regional monitoring without a farm-specific monitoring component cannot meet Resolution No. 68-16's requirement. The Staff Report does not explain how regional monitoring would suffice to determine whether upstream measures are BPTC or the presence and extent of upstream degradation. *See* Staff Report, p. 116.

Of the five alternatives considered in the PEIR, only Alternative 5 is consistent with Resolution No. 68-16. That alternative requires discharges to identify the measures they are installing or implementing and it requires monitoring of the measure's effectiveness (though as CSPA notes below, Alternative 5 is weighted down with too much monitoring).

104-17 cont'd

As the staff acknowledges, "With regard to selection of measures and practices, the Central Valley Water Board and USEPA recognize that there is often site-specific, crop-specific, and regional variability that affects the selection of appropriate management measures, as well as design constraints and pollution-control effectiveness of various practices." Staff Report, p. 66-67. Because BPTC and compliance with the state's antidegradation policy is ultimately a farm specific question, there is no getting around the fact that to implement the policy, one must identify and measure BPTC at the farm level. *See PEIR, p. 3-9* ("The appropriate management practice is typically selected on a site-specific or property-specific basis"). It is simply ridiculous to claim that one can determine that a discharger has installed BPTC by measuring ambient water quality many miles downstream. If that were the case, the regional monitoring that has occurred under Alternative 1 for the last seven years would already allow the Regional Board to evaluate BPTC throughout the region. Of course, the opposite is true. The Regional Board has no idea what, if any, measures have been installed and whether they amount to BPTC. Alternatives that continue the current failure to apply Resolution No. 68-16 to tens of thousands of dischargers of toxic and impairing pollutants and vast swaths of the State's inland waters amount to licenses to degrade water. CSPA agrees that farmers can have flexibility but they have to tell the Boards and the public what they decided to implement and then measure its effectiveness to comply with the BPTC requirement.

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2. Alternatives 1 through 4 violate the NPS Policy

Alternatives 1 through 4 also are inconsistent with the State Board's Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program (May 20, 2004) ("NPS Policy"). Any NPS program must be consistent with five key elements of the NPS Policy. Alternatives 1 through 4 are all inconsistent the NPS Policy's element requiring compliance with Resolution No. 86-16. Alternatives 1 and 2, as well as the staff's recommended program, fail to comply with second and fourth key elements as well. Alternatives 3 and 4 also fall short of the second and fourth elements to the extent they call for no water quality monitoring or only regional water quality monitoring. Each of the four relevant elements is discussed in turn. 104-18

Key element 1 states that "[a]n NPS control implementation program's ultimate purpose shall be explicitly stated. Implementation programs must, at a minimum, address NPS pollution in a manner that achieves and maintains water quality objectives and beneficial uses, including any applicable antidegradation requirements." NPS Policy, pp. 11-12. As discussed above, Alternatives 1 through 4 do not comply with Resolution No. 68-16. Hence, they also cannot comply with Key Element 1 of the NPS.

Key element 2 provides that: "[a] nonpoint-source control implementation program must include a description of the management practices and other program elements that are expected to be implemented to ensure attainment of the implementation program's stated purpose, the process to be used to select or develop management practices, and the process to be used to ensure and verify proper management practice implementation." NPS Policy, p. 12. "A RWQCB must be convinced there is a high likelihood the MP will be successful." *Id.* In regard to discharges from irrigated lands, this element of the NPS Policy effectively requires farm-based water quality management plans, or their equivalent. "MPs must be tailored to a specific site and circumstances, and justification for the use of a particular category or type of MP must show that the MP has been successfully used in comparable circumstances. If an MP has not previously been used, documentation to substantiate its efficacy must be provided by the discharger." *Id.*, p. 12. In this case, the dischargers are the individual farms and the only way to document the efficacy of a specific management practices for their particular lands is for them to tell the Regional Board what they are doing and why. Likewise, in order "to ensure and verify proper management practice implementation" for irrigated lands, the farms must report on their implementation, including pollutant specific monitoring of the BMP's resulting effluent. Because Alternatives 1 and 2 do not include FWQMPs, they cannot comply with key element 2. Likewise, Alternatives 1 and 2 and Alternative 4's reliance on regional monitoring also cannot comply with key element 2's verification requirement. Alternative 3 has no water quality monitoring at all and, thus, in the context of irrigated lands management practices, cannot verify the effectiveness of any management practice. 104-19

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Key element 3 of the NPS Policy provides that "[w]here the Regional Water Board determines it is necessary to allow time to achieve water quality objectives, the nonpoint-source pollution control implementation program must include a specific time schedule and corresponding quantifiable milestones designed to measure progress toward reaching the specified requirements." NPS Policy, p. 13. Although CSPA may not be opposed to reasonable time frames for irrigated lands dischargers to come into compliance with the requirements of a revised program, the PEIR and staff report need to be clarified to acknowledge that the Regional Board may not have authority to include schedules of compliance in either WDRs or conditional waivers because the Central Valley Bain Plan fails to include any such authority in its program to achieve the applicable water quality standards. See Water Code § 13242(b) (program to achieve standards must include "[a] time schedule for actions to be taken" – if no time schedule provided in Basin Plan, no authority); Basin Plan, p. IV-16 (compliance schedules only authorized for NPDES permits). The Board's authority appears to be limited to adopting time schedules through enforcement orders. The documents also should be careful to emphasize the NPS Policy's requirement that, assuming such schedules are authorized in the Basin Plan, the schedules "may not be longer than that which is reasonably necessary to achieve an NPS implementation program's water quality objectives." 104-20

Key element 4 requires that "[a]n NPS pollution control implementation program must include sufficient feedback mechanisms so that the Regional Water Board, dischargers, and the public can determine whether the program is achieving its stated purpose, or whether additional or different management practices or other actions are required." NPS Policy, p. 13. "In all cases the NPS control implementation program should describe the measures, protocols, and associated frequencies that will be used to verify the degree to which the MPs are being properly implemented and are achieving the program's objectives, and/or to provide feedback for use in adaptive management." *Id.* "[I]f the program relies upon dischargers' use of MPs, there should be a strong correlation between the specific MPs implemented and the relevant water quality requirements." *Id.*, p. 12. In the context of irrigated lands, this key element requires reporting and monitoring. It is impossible to describe the management practices that were used and a "strong correlation" between the management practices and water quality standards without FWQMPs and annual reporting. And it is impossible to determine that the management practices are effective without reports from the discharger that they have been properly implemented and monitored to confirm they have reduced pollution. Alternatives 1 through 4 do not achieve this level of comprehensible feedback. 104-21

Key element 5 requires that "[t]he Regional Water Board must make clear, in advance, the potential consequences for failure to achieve a nonpoint-source pollution control implementation program's stated objectives." Neither Alternative 1 nor 2 make clear the consequences of any failures by coalitions. No coalition or discharger takes seriously the notion that a coalition will be dissolved for failing to comply with the program's requirements. In essence, the coalition-based alternatives require the Regional Board to dissolve an entire watershed program – with nothing in place to back 104-22

it up once it is gone. The Regional Board would appear to punish itself as much as the dischargers under these scenarios. Likewise, as for Alternatives 3 and 4, the consequences of failure also are not clear because the proposals do not include monitoring of the individual dischargers. Although these alternatives have the Regional Board involved (CSPA believes unrealistically) in the development of the FWQMPs, without management practice effluent data and only sporadic site inspections by staff, there are no clear consequences for noncompliance by individual dischargers. 104-22 cont'd

G. The PEIR Fails To Consider a Reasonable Range of Alternatives Because Most of the Alternatives are Weighted Down With Components That Render Them Ineffective.

Because four out of the five alternatives considered in the PEIR are not viable because they violate some of the elemental water quality regulations, the Regional Board is left with only a single feasible alternative – Alternative 5. *See* PEIR, p. 2-8 ("Alternatives must ... meet statutory requirements established in applicable state policy and regulations"). This is not a reasonable range of alternatives. Even assuming one additional alternative – Alternative 4 – comes close to being legal and thus feasible, the Board is still left with only two options. The Regional Board should redraft the PEIR to focus on feasible alternatives. These would include in addition to Alternative 5, staff's proposed program (although as discussed below, staff's proposal is also inconsistent with the PS Policy and Resolution No. 68-16), CSPA's proposed alternative above, and at least one other variation that includes FWQMPs and farm-specific monitoring for at least some portion of the discharging farms. 104-23

An EIR must describe a range of reasonable alternatives to the Project, or to the location of the Project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. "An EIR's discussion of alternatives must contain analysis sufficient to allow informed decision making." *Laurel Heights I*, 47 Cal.3d at 404. An EIR must also include "detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project." *Id.* at 405.

In addition to their failure to comply with Resolution No. 68-16 and the NPS Policy, CSPA also believes the alternatives considered in the PEIR suffer from the following defects.

1. The ILRP Should Not Rely on Coalitions to Implement or Comply with Irrigated Lands Program.

What, if any, value the existing coalitions may have brought to the program to facilitate some of the regional monitoring and performing outreach to growers, has now passed. The ILRP, to be effective, must now concentrate on getting individual farmers to take actions necessary to control their pollution discharges and document implementation of BPTC. CSPA's review of the coalitions' management plans approved 104-24

by the Regional Board under the existing program shows that the coalitions have no intention of documenting each farm's management measures or their effectiveness. Instead, as their management plans make clear, the coalitions propose to replace various office meetings with groups of growers as a surrogate for documenting each farm's BMPs and their effectiveness. Of course, to confirm the selection, implementation and monitoring of BPTC on each farm, each farm must provide that information. Adding a layer of unofficial bureaucracy with an interest in obscuring information from both the Board and the public does not add any efficiency to the program. In 2003, CSPA pointed out that:

> If one thing is clear, the existing Coalition program has managed to mask from the Regional Board what is going on on-the-ground at most of the farms around the Valley. As several Board members commented and as is painfully evidenced from reviewing the available documents, we still do not have the most basic information about what, if any, BMPs are being applied in the fields, where they're being applied, whether they are working or improving the quality of discharges and what other BMPs might be tried in the future.

Letter from Law Office of Michael R. Lozeau on behalf of Deltakeeper, pp. 5-6 (Nov. 4, 2005). Remarkably, seven years later, the mask erected by the coalitions remains in place. Neither the Board nor the public has any idea what if any management practices have been proposed or implemented by any of the estimated 30,000 farms in the Central Valley. *See e.g.*, Technical Memo, p. 1-2 ("Although Alternative 1 represents the continued implementation of current Central Valley Water Board policies, limited information was available to determine the extent of management practice implementation to date"); *Id.*, p. 2-2 ("Conceptually, the best source of this type of information would be growers or grower coalitions. Because this information was not widely available, other sources were used to estimate the existing conditions (NRCS 2005; DWR 2001)"); Staff Report, p. 117 (explaining that only effort to date by coalitions to "track the progress of management practice implementation through the results of periodic surveys sent to growers"). Nor does the informal effort of the coalitions to collect the farm-specific data appear to have changed since the Regional Board's approval of management plans. *See, e.g.* East San Joaquin Water Quality Coalition Web Site ("Properties adjacent to or in close proximity to each waterway sampled by the Coalition are the primary focus of mailings and notices for local workshops that cover BMPs to solve the water quality problem"); San Joaquin County and Delta Water Quality Coalition, 2010 Annual Monitoring Report, p. 4 (March 1, 2010) (focused outreach in three subwatersheds consists of asking growers to complete surveys and then conducting unspecified follow-up with growers). The next phase of the ILRP cannot allow coalitions to continue and further obstruct the Board's collection of discharger information.

104-24 cont'd

The use of coalitions also will continue to undermine the Regional Board's enforcement discretion. As the staff acknowledges, by relying on coalitions, the Board effectively limits the availability of all of its enforcement tools. "The Central Valley

Water Board does not have any direct enforcement authority over a third-party group that is not responsible for the waste discharge (i.e., the Board cannot take enforcement against the coalition." Staff Report, p. 117. The only option available to the Regional Board to address coalitions' noncompliance is not to enforce the requirements, but to eliminate the entire program within large areas of the Central Valley. Rather than a readily available and precise tool available to the Regional Board, like a notice of violation or an administrative civil liability, a decision to dismantle the ILRP for an entire area would be the least likely response the Board would want to take and would not be commensurate with the scope and seriousness of most of the violations the Board was trying to address. The coalitions also undermine the Board's ability to effectively enforce against individual dischargers as well by failing to collect the necessary data regarding management practices on individual farms and otherwise obstructing or slowing down the review and analysis of that information. *See* Staff Report, p. 140 (discussing Alternative 1, "the Board . . . would not have information regarding the method(s) and practices the operation has or plans to implement to work toward solving identified water quality concerns").

Staff's proposal argues that the presence of coalitions will "take advantage of local knowledge and administrative/cost efficiencies in dealing with a few groups versus thousands of individual operations." Staff Report p. 3. The only administrative/cost efficiencies visible from the record are those realized by the coalitions' successful effort to date to avoid gathering the key information and data that is necessary to implement a successful program – farm-specific management practices and monitoring data to prove they have been implemented and are effective at reducing the pollutants of concern. It makes no sense that establishing an intermediate layer of bureaucracy between the dischargers who have the information and the agency that needs to know the information makes that process more efficient.

104-24 cont'd

Nor do the coalitions bring the local knowledge necessary for a successful ILRP. If anything, the coalitions are preventing local knowledge of each farm from reaching the Board. As far as CSPA can tell, staffing by the coalitions consists of a few staff for each coalition. There is no reason that the Regional Board itself could not provide the same local presence by modestly expanding its staff and gain efficiencies by cutting out the middleman. To the extent any alternative proposes to rely on coalitions who are not themselves dischargers to conduct sampling, gather information, and prepare plans and reports pursuant to a conditional waiver or WDRs, the program will continue to fail to measurably reduce any pollution discharges and perpetuate or worsen the existing pollution discharges from irrigated lands.

2. Alternatives that rely solely on regional monitoring to determine the adequacy of BPTC or enforcement of individual farms are destined to fail and do not meet CEQA's duty to mitigate impacts.

104-25

The four alternatives that rely on regional monitoring to determine that the program is reducing, rather than increasing, pollution discharges and that management

practices are installed and equal to BPTC, do not provide for the mitigation of impacts required by CEQA. CEQA requires public agencies to avoid or reduce environmental damage when "feasible" by requiring "environmentally superior" alternatives and mitigation measures. CEQA Guidelines § 15002(a)(2) and (3); *See also, Berkeley Jets*, 91 Cal. App. 4th 1344, 1354; *Citizens of Goleta Valley*, 52 Cal.3d at 564. The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to "identify ways that environmental damage can be avoided or significantly reduced." CEQA Guidelines §15002(a)(2). If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns." Pub. Res. Code § 21081; CEQA Guidelines § 15092(b)(2)(A) & (B).

In general, mitigation measures must be designed to minimize, reduce or avoid an identified environmental impact or to rectify or compensate for that impact. CEQA Guidelines § 15370. Where several mitigation measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified. *Id.* at § 15126.4(a)(1)(B). A lead agency may not make the required CEQA findings unless the administrative record clearly shows that all uncertainties regarding the mitigation of significant environmental impacts have been resolved. A public agency may not rely on mitigation measures of uncertain efficacy or feasibility. *Kings County Farm Bureau*, 221 Cal.App.3d at 727 (finding groundwater purchase agreement inadequate mitigation measure because no record evidence existed that replacement water was available). "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. CEQA Guidelines § 15364. Mitigation measures must be fully enforceable through permit conditions, agreements or other legally binding instruments. *Id.* at § 15126.4(a)(2).

104-25 cont'd

By not requiring any farm-specific mitigation measures, Alternatives 1 and 2 fail to meet CEQA's mitigation requirements. These two alternatives make no effort to resolve the vast uncertainties surrounding the selection and implementation of management practices on irrigated lands throughout the Central Valley, the very mitigation measures relied upon by the PEIR to find that impacts to water quality will be less than significant. Despite the PEIR's acknowledgement that "[t]he appropriate management practice is typically selected on a site-specific or property-specific basis[,]" Alternatives 1 and 2 do not include any site-specific BPTC requirements that are or will be fully enforceable.

Similarly, Alternatives 3 and 4, although requiring FWQMPs that would require, in the future, individual farms to describe their management practices, the absence of any farm specific and BMP-specific monitoring to confirm their implementation and effectiveness also fails to eliminate the rampant uncertainty regarding BMP implementation and their effectiveness at reducing pollution from specific farms. And, again, making believe that one can monitor for the implementation and effectiveness of

management practices on a specific farm from several miles downstream makes any management practice mitigation unenforceable, never mind fully enforceable. 104-25 cont'd

3. Alternative 3 includes components that begin to address the shortcomings of the current program but is weighed down with odious requirements and illegal delegation of Board responsibilities.

Although flawed, some of the alternatives described in the PEIR include components that CSPA believes are necessary to an effective ILRP. However, in each instance, the PEIR weighs down the effective components with various poison pills and odious requirements that stifle any serious consideration of alternatives that substantially change the current program. Additional comments and flaws in Alternative 3, in addition to the absence of any effluent quality monitoring discussed above, include the following. 104-26

Alternative 3 does include the important requirement that all irrigated land dischargers prepare a FWQMP. CSPA believes this requirement is fundamental to a program that will achieve BPTC, achieve water quality standards and allow proper oversight by the Regional Board. However, the 2-year time period for developing a FWQMP should be shortened to 6 months for surface water discharges and one year for groundwater discharges. 104-27

Alternative 3's proposal that the Regional Board review and approve every FWQMP is unrealistic and unnecessary. *See* PEIR, p. 3-14 ("Review applications and determine priorities for FWQMP review and approval"); p. 3-16 ("Submit the FWQMP for review and approval by the Central Valley Water Board"). As proposed, the task of reviewing in advance each and every FWQMP is unrealistic. Moreover, such review and approval would be a desk top review of whatever information is included in the FWQMP without the benefit of any field observations. This process would simply repeat the currently inadequate surveys and informal meetings which the coalitions claim can accurately evaluate management practice implementation and effectiveness. Rather than requiring review of and approval of all FWQMPs, the program should specify in sufficient detail the contents of the FWQMP and require them to be submitted under penalty of perjury. CSPA also believes there is a role for an iterative process. The requirements for the FWQMP should include requiring additional management practices wherever effluent data indicates that pollutant discharges are not decreasing or standards are being violated. Any review by the Board staff would be in the context of reviewing for compliance and prioritizing any inspections and enforcement investigations. Staff also could, of course, require additional measures or monitoring for specific problem farms. 104-28

Similarly, because such up front review and approval is unnecessary, any resources expended to review proposals by third-parties to take over such review and approval of FWQMPs is also unnecessary. To the extent the Board thought it was

possible to review and approve every FWQMP, farming that task out to third parties would be an illegal delegation of discharge requirements. Water Code § 13223. 104-28 cont'd

CSPA certainly agrees that the Regional Board should prioritize and conduct a significant number of site inspections every year. It is through this oversight and enforcement process that CSPA believes the Regional Board can realistically and accurately review a specific farm's FWQMP to determine its compliance with the program requirements. Likewise, to the extent the Board staff wanted to "coordinate" with a specific farmer or even a group of farmers, such an inspection would be the opportunity for coordination. By including effluent monitoring, the Regional Board would have a better means of prioritizing its inspections and evaluating whether management practices are BPTC. By publicizing through Board meetings and the web site the outcome of these inspections including any "certifications" issued or, equally important, enforcement responses by the Board or staff, CSPA believes that the Regional Board would be taken seriously by a much larger percentage of individual dischargers who would then seek to comply with BPTC and water quality standards. 104-29

As discussed in various sections of these comments above, Alternative 3's failure to require any farm-specific water quality monitoring is a fatal flaw. *See* PEIR, p. 3-16 ("unless specifically required in response to water quality problems, owners/operators would not be required to conduct water quality monitoring of adjacent receiving waters or underlying groundwater"). CSPA believes that monitoring of discharged effluent is what needs to be required to determine compliance with both the BPTC requirement and applicable water quality standards. As outlined in CSPA's proposed alternative, such monitoring should be limited to Tier 2 and Tier 3 dischargers within areas covered by management plans and limited to basic parameters plus any pollutants triggering the management plan. CSPA agrees that visual monitoring does have a role but cannot be the only monitoring. CSPA has many years of experience reviewing annual reports and initiating enforcement actions under the Statewide General Industrial Storm Water Permit. The visual monitoring conducted under that permit is of limited value to documenting pollution discharges or BMP effectiveness (though with appropriate photographs, visual monitoring can document the installation of BMPs and their condition). 104-30

4. Alternative 4 includes fewer poison pills but its failure to require BMP and effluent monitoring means that it would not achieve water quality objectives or ensure implementation of BPTC.

Alternative 4 also includes a number of components that CSPA believes are key components to a successful ILRP, including FWQMPs and a tiering component to guide both BMP implementation and different levels of monitoring. Alternative 4 proposes the same procedures for preparing, reviewing and approving FWQMPs. CSPA agrees with requiring all dischargers to prepare and implement FWQMPS but CSPA has the same concerns with the FWQMP procedures discussed for Alternative 3 above. 104-31

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The key difference proposed in Alternative 4 would be the inclusion of a tiering system to guide dischargers on the proper levels of BMPs they should be considering as well as the intensity of monitoring that is required. PEIR, p. 3-17 ("The tiers represent fields with minimal (Tier 1), low (Tier 2), and high (Tier 3) potential threat to water quality. Requirements to avoid or minimize discharge of waste would be the least stringent for Tier 1 fields and the most stringent for Tier 3 fields"). CSPA agrees that a tiering system is important to controlling the costs of implementing and overseeing the program and assuring that limited resources are aimed at potentially significant pollution dischargers. CSPA believes that the three tiers proposed in the PEIR for both surface and groundwater make sense in providing some initial guidance on the selection and implementation of BMPs. However, CSPA believes both Tier 2 and 3 should conduct similar levels of farm-specific water quality monitoring, albeit not as extensive as that proposed for Alternative 5 and, at least theoretically, for Alternative 4. In addition, CSPA also would use the information gleaned from the ambient monitoring and water quality management plans to further prioritize the farms that must conduct effluent water quality monitoring. 104-31 cont'd

Alternative 4's monitoring requirements for both Tier 2 and 3 dischargers fail to implement Resolution 68-16, evaluate management practice effectiveness and assure compliance with water quality standards by allowing regional monitoring by discharger coalitions to replace the outlined farm-specific monitoring. *See* PEIR, p. 3-19. The inclusion of farm specific monitoring is an illusion as every discharger obviously will opt for the cheaper monitoring far away from their activities and effluent. Monitoring required by the ILRP should be focused on effluent monitoring and BMP effectiveness. 104-32

Likewise, for groundwater monitoring the Alternative should focus on onsite wells and leave the regional monitoring to the Regional Board and its consultants. Regional monitoring could also be supplemented by use of the California Department of Public Health public drinking water supply database. Use of the database, in selecting for pesticide and nitrate concentrations in Central Valley wells, would allow for an analysis of the effectiveness of the Alternative as implemented. CSPA believes the monitoring of existing wells is a reasonable proposal and should be implemented by both Tier 2 and 3 groundwater dischargers. Most farms will have one or more functional wells already in place. It is a simple step to require nutrient and pathogen monitoring of those existing wells. The data also would be much more relevant (though perhaps initially not sufficient to define the scope of any water quality exceedances) to that particular discharger. Any regional groundwater problem would simply measure in that locale and say little if anything about dischargers several miles away. 104-33

The proposed monitoring frequency for Tier 2 dischargers of once every five years is also woefully inadequate, whether considered on a farm-specific or regional basis. It is already difficult enough to make determinations about compliance with standards or implementation of BPTC based on edge of field monitoring four times in a single year. To then wait five more years before the next set of samples would prevent 104-34

any determination of trends and any improvements to BMPs for that amount of time or longer. Sampling needs to occur every year, whether a discharger is in Tier 2 or Tier 3.

Although not ideal, CSPA believes the proposed number of sampling events in any given year strikes a proper balance. PEIR, p. 3-24 ("Tailwater discharges during the first discharge of the irrigation season and once mid-season. Storm water discharges during the first event of the wet season (between October 1 and May 31) and once during the peak storm season (typically February). Discharges of subsurface (tile) drainage systems annually"). CSPA incorporates this proposal into its preferred alternative. 104-34 cont'd

Alternative 4 again discloses staff's penchant for encouraging the formation of intermediate bureaucracies and entities over whom they have no enforcement authority by inviting groups of dischargers to form "legal entities that could serve a group of growers who discharge to the same general location and share monitoring locations." PEIR, p. 3-20. CSPA agrees that there exist opportunities for neighboring farms to work together to monitor shared irrigation ditches and implement joint control measures. CSPA does not see any reason for the individual dischargers to have to form a separate entity to accomplish this goal. Each of them could incorporate the measure into their respective FWQMPs and each would simply be jointly and severally responsible for its implementation and effectiveness. The Regional Board could respond to one or all, though obviously any inspection and follow-up would want to be with all of the cooperating farms. 104-35

5. Alternative 5's aggressive agency reviews and approvals and expensive monitoring proposals go beyond the reasonable next step but it is the one alternative reviewed in the PEIR that, if implemented would dramatically reduce irrigated lands pollution discharges.

Of the five alternatives described in the PEIR, Alternative 5 is the only one that proposes an effective framework that (1) would comply with Resolution 68-16's requirement that each discharger demonstrate BPTC and prevent degradation, (2) assure the attainment of water quality standards not only miles downstream but in the immediate area of a discharger's effluent, and (3) provide information sufficient for the Regional Board staff to properly prioritize its inspections and enforcement. Alternative 5 is modeled on the successful industrial and construction site storm water permit programs, with a few important exceptions. Unfortunately, in their apparent excitement, the PEIR drafters could not refrain themselves from layering in too many requirements the sole purpose of which appears to be to make the alternative so expensive that it would never be selected. CSPA believes that, although the regulatory framework of Alternative 5 is sound, the monitoring frequency and constituents (at least as defined in the accompanying economic analysis) are excessive and the absence of any tiering that would prioritize the riskier dischargers also misses a reasonable method of reducing costs. 104-36

Alternative 5 proposes monitoring that goes well beyond, for example, the storm water general permits' focus on basic parameters and representative metals monitoring. Technical Memo, pp. 2-17 – 2-19. *See* Kings River Coalition Annual Monitoring Report (2010) (according to the Technical Memo, the monitoring constituents are based on the regional samples taken by the Kings River Coalition). This is overkill for site specific monitoring. The frequency of monitoring also is dramatically increased in this Alternative for tailwater discharges. For example, Alternative 5 would require monthly sampling of tailwater as compared to Alternative 4's proposal of twice per irrigation season (albeit with its regional monitoring exception). CSPA believes the extensive and costly monitoring parameters proposed for Alternative 5 go well beyond what is necessary for the Board and a discharger to determine whether they have installed BPTC and are protecting water quality objectives. 104-37

The most obvious poison pill in Alternative 5 is the proposal that every farmer drill and install groundwater monitoring wells. Focusing on existing wells would be much more reasonable. Additionally, use of the California Department of Public Health public drinking water supply database would allow for an analysis of the effectiveness of Alternative 5 as implemented. The database could be queried for pesticide and nitrate concentrations in wells in the Central Valley to determine of concentrations are increasing or decreasing. The database could also be used for analysis to determine the role of the Alternative in contributing to trends (*i.e.* what role the Alternative plays in increases or decreases). 104-38

As for the FWQMPs, CSPA does not believe there is any basis for allowing dischargers two-years to prepare and implement FWQMPs. PEIR, p. 3-27. They have been on notice for the last seven years that they need to implement management measures. In many areas, management plans that supposedly will not lead to implementation of BMPs have been in place for some time. CSPA believes that all dischargers should prepare and implement FWQMPs within 6 months. 104-39

Alternative 5 does drop the proposal to have the Regional Board coordinate with dischargers regarding their FWQMPs and review and approve each plan as well. CSPA believes this is a reasonable omission. However, the FWQMPs need to be submitted to the Regional Board, ideally as pdfs that could be posted on-line. The proposal to have them on-site and available upon the Regional Board's request would eliminate their utility for staff to rely upon them to make decisions about enforcement priorities, undercuts the public's ability to review FWQMPs, precludes other dischargers from reviewing similar dischargers' plans, and sends a message to dischargers that they need not worry until the Board shows up. 104-40

Alternative 5 states that Board staff will "[f]ollow up and coordinate with growers to ensure that FWQMPs and implemented management practices are addressing identified water quality problems." PEIR, p. 3-26. The economic analysis presumes that by merely interacting directly with growers, Board staff will have to provide them 104-41

technical assistance on their FWQMPs. *See* Technical Memo, p. 2-24 ("Board staff will be required to interact directly with growers and provide technical assistance when requested"). In so presuming, the economic analysis comes up with an estimated staffing level of 356 staff. *Id.* This number completely exaggerates the level of staff necessary to implement this alternative. Indeed, the industrial and construction storm water program covers more than 7,500 facilities throughout the Central Valley. Currently, the Regional Board assigns fewer than a dozen staff to implement and enforce that entire program, which also includes overseeing the 93 Phase I and II municipal stormwater permits. More staff is clearly necessary to more effectively implement that program. Even with those few staff however, it is clear that almost all of the 7,500 facilities have implemented some level of management measures.

104-41 cont'd

Alternative 5 itself does not suggest that Board staff are obliged to act as dischargers' consultants. That notion, expressed in the economic analysis, is entirely improper. Any follow-up by staff should be pursuant to its oversight and enforcement authority. The Regional Board need not add 356 staff to effectively implement this alternative. As CSPA also proposed for Alternatives 3 and 4, the Board should focus its limited resources by using the monitoring data and FWQMPs to prioritize site inspections and distribute the results – providing examples of good compliance and issuing enforcement orders and penalties where compliance falls short.

6. The PEIR fails to consider the true no project alternative – automatic termination of the waiver and implementation of individual WDRs

The PEIR's formulation of the no project alternative is wrong because the PEIR incorrectly treats the existing general waivers as continuing in perpetuity. PEIR, p. 3-4 ("no project alternative" identified as future renewal of existing program and continued implementation) (emphasis added). The PEIR claims that a future extension or renewal of the existing waiver is of a "ministerial nature." *Id.* Both of these assertions are incorrect as a matter of law. If the Board takes no action, the existing waiver terminates on June 30, 2011. Order No. R5-2006-0053, p. 17; Water Code § 13269(a)(2). Any renewal of the existing waiver is not ministerial but discretionary, requiring the Regional Board to hold a hearing and exercise its discretion to determine whether renewing an existing waiver complies with the Basin plan, is in the public interest and includes adequate monitoring. Water Code §§ 13269(a)(2), (f). Hence, the no project alternative is allowing the existing waiver to automatically terminate on June 30, 2011 and what would reasonably be expected to occur once that happens.

104-42

The PEIR cites out-of-context a single sentence from the CEQA Guidelines relating to revising a regulatory plan. The PEIR quotes the following sentence from CEQA Guideline § 15126.6(e)(3)(A) – "When the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the 'No Project' Alternative will be the continuation of the existing plan, policy, or operation into the future." PEIR, p. 1-3. The PEIR suggests that guidance allows the Regional Board to make believe that

doing nothing somehow magically renews the existing waivers come June 20, 2011. That, of course, is not a "no action" or "no project" alternative. Renewing the waivers would be selecting a discretionary action.

CEQA requires that an EIR consider a no project alternative. CEQA Guidelines § 15126.6(e)(1) ("The specific alternative of "no project" shall also be evaluated along with its impact"). "The purpose of describing and analyzing a no project alternative is to allow decisionmakers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." *Id.* "The "no project" analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. CEQA Guidelines § 15126.6(e)(2). "The [no project] description must be straightforward and intelligible, assisting the decision maker and the public in ascertaining the environmental consequences of doing nothing; requiring the reader to painstakingly ferret out the information from the reports is not enough." *Planning & Conservation league v. Dept. of Water Resources* (2000) 83 Cal.App.4th 892, 911 (emphasis added).

The Guidelines note that "[a] discussion of the "no project" alternative will usually proceed along one of two lines . . . CEQA Guidelines § 15126.6(e)(3). The PEIR attempts to rely on the first category, which states in full that:

> When the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the "no project" alternative will be the continuation of the existing plan, policy or operation into the future. Typically this is a situation where other projects initiated under the existing plan will continue while the new plan is developed. Thus, the projected impacts of the proposed plan or alternative plans would be compared to the impacts that would occur under the existing plan.

CEQA Guidelines § 15126.6(e)(3)(A) (emphasis added). However, the existing waiver, unlike a typical land use or general plan (or for example the Regional Board's Basin Plan) that does not expire by a date certain, expires as a matter of law on a date certain, June 30, 2011. The Guidelines make clear that the Regional Board cannot treat one of its alternatives to a proposed project (assuming the PEIR included a proposed project) as a no project alternative:

> After defining the no project alternative . . ., the lead agency should proceed to analyze the impacts of the no project alternative by projecting what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

104-42 cont'd

CEQA Guidelines § 15126.6(e)(3)(C). The current relevant plans germane to the PEIR are the existing waivers. If the Regional Board were to do nothing by June 30, 2011, *i.e.*, a true no project alternative, the waivers will automatically expire. The Board cannot assume it will select one of the project's alternatives and pretend it is not approving the project. This methodology was firmly rejected by the Court in *Planning & Conservation League*:

> A no project description is nonevaluative. It provides the decision makers and the public with specific information about the environment if the project is not approved. It is a factually based forecast of the environmental impacts of preserving the status quo. It thus provides the decision makers with a base line against which they can measure the environmental advantages and disadvantages of the project and alternatives to the project. By contrast, the discussion of alternatives is evaluative.

Planning & Conservation League, 83 Cal.App.4th at 917-918. The PEIR fails to project out an actual no project alternative, incorporating the reality that the existing waivers are temporary with only 10 months to live.

The PEIR's assertion that the existing waivers can be ministerially extended or renewed is blatantly incorrect. *See* PEIR, p. 3-29 ("If the Central Valley Water Board fails to take the ministerial action to extend or renew the waiver program, regulation of irrigated agriculture would not cease"); *id.*, p. 1-3 ("Given the ministerial nature of the extension or renewal of the ongoing waiver, which would allow continuation of the existing program, Alternative 1 is best characterized as the "No Project" Alternative"). Pursuant to Water Code § 13269, the Regional Board must apply its discretion to adopt or renew a conditional waiver. Water Code §§ 13269(a)(2), (f). *See* CEQA Guidelines §§ 15002(i)(2) ("[w]hether an agency has discretionary or ministerial controls over a project depends on the authority granted by the law providing the controls over the activity"). The initial decision as to whether to renew a waiver or adopt waste discharge requirements or a prohibition are highly discretionary. Assuming the Regional Board chooses to pursue issuance of a conditional waiver, the Regional Board wields considerable discretion in adopting the necessary conditions of the waiver. The Regional Board must employ its discretion to make the fundamental determinations that the conditional waiver will be consistent with the Basin Plan and in the public interest. Lastly, Section 13269 precludes the Regional Board from renewing any waiver without holding a public hearing where it must review the terms of the waiver.

Porter-Cologne's waiver renewal process cannot be equated even remotely with a ministerial action. "'Ministerial' describes a governmental decision involving little or no personal judgment by the public official as to the wisdom or manner of carrying out the project. The public official merely applies the law to the facts as presented but uses no special discretion or judgment in reaching a decision." CEQA Guidelines, 14 CCR § 15369. "A ministerial decision involves only the use of fixed standards or objective

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measurements, and the public official cannot use personal, subjective judgment in deciding whether or how the project should be carried out." *Id.* As we are all well aware, having gone through this waiver process several times now, the decisions to be made by the regional Board are loaded with subjective, personal judgment. *See* CEQA Guidelines § 15357 ("'Discretionary project' means a project which requires the exercise of judgment or deliberation when the public agency or body decides to approve or disapprove a particular activity, as distinguished from situations where the public agency or body merely has to determine whether there has been conformity with applicable statutes, ordinances, or regulations"); § 15002(i) ("[a] project subject to . . . judgmental controls is called a 'discretionary project'"). *See also* CEQA Guidelines § 15268(d) ("Where a project involves an approval that contains elements of both a ministerial action and a discretionary action, the project will be deemed to be discretionary and will be subject to the requirements of CEQA").

104-42

The PEIR must be revised and recirculated with a properly defined and evaluated no project alternative.

H. The PEIR Ignored CSPA's and Others Scoping Comments.

As the PEIR recognizes, "[i]n accordance with State CEQA Guidelines Section 15123(b)(2), the areas of controversy known to the lead agency, including issues raised by agencies and the public, shall be identified in the EIR." PEIR, p. 1-8. *See* CEQA Guidelines § 15123 ("(a) An EIR shall contain a brief summary of the proposed actions and its consequences. . . . (b) The summary shall identify: . . . (2) Areas of controversy known to the lead agency including issues raised by agencies and the public. . .).

CSPA and others have participated in the development of the EIR from its inception, submitting detailed scoping comments that fully advised the Regional Board of CSPA's long-standing criticisms of the existing ILRP and the need for FWQMPs, farm-specific monitoring and compliance with antidegradation requirements. *See* CSPA/Baykeeper Scoping Comments (May 30, 2008); CSPA et al. Scoping Comments (March 12, 2003). In those comments, CSPA emphasized the main controversies surrounding the ILRP – embellished further by these PEIR comments – that the ILRP and EIR "must directly address and eliminate . . . violations of water quality standards in light of the fact that, under the present program, the Regional Board cannot know who is actually discharging pollutants, what specific pollutants are being discharged, what are the localized water quality impacts in the vicinity of the discharge, who has or has not implemented best management practices (BMPs) and whether any reductions in pollutant loading or improvements in water quality have occurred." CSPA/Baykeeper Scoping, p. 3 (May 30, 2008). CSPA also reiterated the ongoing controversy "that Reports of Waste Discharge and individual farm-based management plans (similar to pollution prevention plans under the industrial or construction stormwater permits) are fundamentally necessary for any meaningful program addressing discharges from irrigated lands." *Id.*, p. 4. The scoping comments also highlighted the ongoing controversy that the ILRP, to be successful and comply with Resolution No. 68-16, must

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include farm specific water quality monitoring. *See id.*, p. 2 ("[EIR] cannot rely on information collected far downstream to adequately address and mitigate upstream adverse impacts to sensitive biological resources, *i.e.*, it must identify localized impacts in the vicinity of actual discharge locations"). Many of these same issues have been raised by CSPA and others in their comments on the previous waivers as well, debated by the Regional and State Boards, and been the subject of previous litigation. *See, e.g.* CSPA et al. Comments (May 23, 2003); Deltakeeper et al. Comments (November 4, 2005). 104-43 cont'd

Despite these well-known areas of controversy, the PEIR fails to include them in the summary as required by CEQA. This blatant omission underscores the bias built-into the PEIR and ultimately informing staff's separate recommendation in its staff report. Indeed, the few controversies listed in the summary are for the most part restricted to those articulated by the coalitions. PEIR, p. 2-9. The PEIR's summary needs to be rewritten to comply with the CEQA Guidelines.

I. The PEIR Overlooks a Number of Important Significant Impacts.

The PEIR opts not to discuss any impacts on at least three issue categories – recreation, aesthetics, public health and cultural impacts – which common sense would indicate will be adversely affected by the Regional Board's selection of an ILRP that is ineffective and fails to significantly reduce pollution discharges from irrigated lands. PEIR, p. 1-8. Since the EIR fails entirely to analyze the impact of the alternatives on these issues, these impacts are subject to the fair argument, rather than the substantial evidence standard. Fair argument standard applies even to EIRs if the EIR fails entirely to analyze a particular impact. *Bakersfield Citizens For Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1208. 104-44

Under the "fair argument" standard, an EIR must analyze an impact if *any* substantial evidence in the record indicates that a project may have an adverse environmental effect – even if contrary evidence exists to support the agency's decision. CEQA Guidelines § 15064(f)(1); *Pocket Protectors*, 124 Cal.App.4th at 931; *Stanislaus Audubon v. Stanislaus* (1995) 33 Cal.App.4th 144, 150-151 (1995); *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal. App. 4th 1597, 1602. The "fair argument" standard creates a "low threshold" favoring environmental review through analysis in an EIR. *Pocket Protectors*, 124 Cal.App.4th at 928.

1. The PEIR fails to address impacts to Recreation and Aesthetics.

In its scoping comments, CSPA pointed out the need to evaluate the ILRP's alternatives on recreational uses in the Central Valley. *See* CSPA et al. Scoping Comments (March 12, 2003) (EIR should analyze impacts on "recreational, tourism and beneficial uses"). There is clearly a "fair argument" that any version of the ILRP may have significant impacts on both recreation and aesthetics in the Central Valley. 104-45

especially within the Delta. By authorizing irrigated lands discharges without FWQMPs or "edge-of-field" effluent quality monitoring, any new ILRP could further exacerbate pollution discharges from irrigated lands. Discharges of both nutrients and pesticides likely would have adverse affects on recreational and aesthetics by continuing to support the growth of nuisance aquatic species, including for example water hyacinth. The growth of water hyacinth in turn results in further water quality impacts to the Delta, including depressed dissolved oxygen levels, increased herbicide spraying, including toxic surfactants, and other pollution concerns. None of these potential impacts were discussed in the PEIR. *See* PEIR, p. 5-11-2 ("It is not anticipated that the program alternatives would substantially increase or decrease the use of recreational facilities, create the need for such facilities, or result in any other foreseeable significant impact on recreational opportunities in the program area"); p. 5.11-1 (no review of impacts to aesthetics).

104-45

Discharges of nutrients from farms contribute to the explosive growth of water hyacinth (*Eichhornia* crassipes) and Brazilian elodea (*Egeria densa*) in the Sacramento-San Joaquin River Delta. Both Brazilian elodea *Egeria densa* and water hyacinth *Eichhornia crassipes* "form dense growths that block waterways and destroy natural habitat by slowing water flow and drastically changing water quality. http://www.dbw.ca.gov/PDF/Egeria/WHSciProbsExcerpts.pdf. As the San Francisco Estuary Institute reports, "[d]ense contiguous mats" of water hyacinth "create navigation and safety concerns in waterways, harbors, and marinas." http://legacy.sfei.org/nis/hyacinth.html. Hyacinths "[i]nterfere[] with irrigation and power generation by clogging pumps and siphons." *Id.* Hyacinth "[c]an completely exclude native floating and submerged vegetation, shade habitat, change water temperature [and] ... deplete dissolved oxygen." *Id.* As Dr. G. Fred Lee has summarized,

> Delta waters experience excessive growths of aquatic plants such as water hyacinth and *Egeria densa*. These water weeds interfere with recreational use of Delta waters for boating, swimming, water skiing, fishing, etc. The water weeds develop on nutrients added to Delta tributaries from urban, agricultural and wetlands sources in the Delta watershed, and from Delta island discharges. The California Department of Boating and Waterways spends several hundred thousand dollars per year to apply chemicals for controlling water weeds. There is concern about the potential toxic and other impacts of these chemicals on non-target organisms, such as fish food organisms, in the water column and sediments.

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Lee, G. Fred and Anne Jones Lee, "Overview of Sacramento-San Joaquin River Delta Water Quality Issues," p. v (June 24, 2004). Because of the significant contribution of nutrients from irrigated lands, there is plainly a fair argument that the Regional Board's authorization of irrigated lands discharges may have a significant impact on recreational boaters and persons recreating in the Delta and observing vast areas of water hyacinth.

Because of the navigational, recreational and aesthetic impacts resulting from excessive water hyacinth growth, the State of California expends resources every year spraying herbicides into Delta waterways. *See* Lee, p. 19 ("large amounts of aquatic herbicides are used in the Delta to control excessive growths of water hyacinth this could be an important issue impacting Delta water quality"). *See* Dept. of Fish & Game, "Acute Toxicities of Herbicides Used to Control Water Hyacinth and Brazilian Elodea on Larval Delta Smelt and Sacramento Splittail (June 8, 2004).

In addition to increasing herbicide discharges to the Delta, water hyacinths also provide habitat for other nonnative crabs and parasites, which ultimately may affect endangered salmon in the Central Valley. As one recent study reports,

> [t]he newfound presence of these crustaceans could have significant ramifications apart from just adding their names to the already lengthy list of non-indigenous species in the Delta. Amphipods and isopods are known to be intermediate hosts of a number of parasites, including acanthocephalan parasites of fish (Nagasawa et al. 1983, Yasumoto and Nagasawa 1996). *Asellus hilgendorfii* has specifically been shown to serve as an intermediate host for numerous species of acanthocephalans that parasitize salmonids and other fish in waters of Japan (Nagasawa and Egusa 1981, Nagasawa et al. 1983, Mayama 1989). Infection occurs when fish prey upon *A. hilgendorfii* that contain acanthocephalan larvae. Adult acanthocephalans parasitize the intestinal tract of the definitive host fish (Nagasawa et al. 1983). Studies have shown that salmonids can have infection levels of 83-100% depending on the season, when *A. hilgendorfii* is only 2.1 % of the total wet weight of food items in the fish diet (Nagasawa et al. 1983). Thus, even though *A. hilgendorfii* occurs in low abundance in the diets of fish in the Sacramento/San Joaquin Delta, it could still potentially infect the entire population of salmonids with acanthocephalan parasites."

Toft, Jason David, "Community Effects of the Non-Indigenous Aquatic Plant Water Hyacinth (*Eichhornia crassipes*) in the Sacramento/San Joaquin Delta, California" (2000). All of these direct and indirect effects must be discussed and analyzed in the PEIR.

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In addition, the presence of bacteria in samples collected by the existing ILRP obviates the need to address the affect of PEIR's alternatives and their ability to reduce fecal discharges on recreation, especially swimming, and human health. In CSPA's experience, it is not possible to keep kids from playing in water. As the staff report summarizes:

> The fecal pathogen indicator *E. coli* is the most common parameter with surface water exceedances of water quality objectives in the ILRP; it was detected in 99 percent of all samples. Fecal contamination is a concern

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> because certain pathogenic bacteria found in feces can cause gastrointestinal illness.

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Staff Report, p. 33. Indeed, 24 and 55 management plans in the Sacramento River and San Joaquin, respectively, have been triggered because of exceedances of E. coli standards in those rivers. Staff Report, p. 26, Table 3. The PEIR makes a passing reference to the fecal coliform problem, noting that "[t]oxicity, and bacteria are also known water quality problems in the Sacrament River Basin." PEIR, p. 5.9-6. The obvious impacts of fecal coliform discharges on recreational uses like swimming and boating in the Delta and other waters of the Central Valley must be addressed in the PEIR.

Lastly, CSPA is aware of numerous individuals who once recreated in and on the Delta and other Central Valley waters who have stopped or reduced such recreation because of fears of contaminants and experiencing health effects that were associated with exposure to Central Valley waters. For example, one of CSPA's members, Linda Forbes, reports:

> I was a frequent visitor to the Delta region for five years, enjoying water skiing, camping, boating and swimming. I experienced several strange skin rashes after weekends of recreation at the Delta, with the severity increasing over time. Two summers ago I began to feel more and more uncomfortable about the risks of pursuing my water sports passion there; I have not gone swimming or skiing in Delta waters for over a year.

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E-mail from Linda Forbes to Bill Jennings, CSPA (Sept. 23, 2010). Another example is from Barbara Barrigan-Parrilla, a CSPA member and the Director of Restore the Delta. She tells of her daughter's first swim in the Delta as an infant resulting in an emergency room visit and her refusal to swim in the Delta since that day. E-mail from Barbara Barrigan-Parrilla to Bill Jennings, CSPA (Sept. 25, 2010). Kari Burr, a fisheries biologist, also describes the adverse impacts of agricultural discharges on her professional and recreational activities. E-mail from Kari Burr to Bill Jennings, CSPA (Sept. 26, 2010). *See also* E-mail from Frank T. Rauzi to Bill Jennings (Sept. 26, 2010) (Mr. Rauzi, a lifelong resident and fisherman of the Delta, recounts his refusal to eat fish and concerns about swimming in the Delta). Based on conversations between Bill Jennings and other CSPA members over the years, CSPA does not believe Ms. Forbes,' Ms. Barrigan-Parilla's, Ms. Burr's or Mr. Rauzi's experiences are isolated incidents but unfortunately are shared by numerous people who would recreate in waters of the Central Valley but for the incredible levels of toxic and health-threatening pollution that is discharged from irrigated lands.

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2. PEIR fails to analyze cultural impacts re: traditional uses of salmon or other fish.

The PEIR opts not to evaluate any cultural impacts of the various ILRP alternatives. PEIR, p. 5.3-9. Contaminants affecting Central Valley salmon and contributing to their decline have adverse impacts on Native American culture and religious practices. It is widely acknowledged by scientists and government agencies that agricultural runoff is one of the factors adversely affecting Chinook salmon. *See* PEIR, p. 5.8-22 ("Other factors affecting the fall-run/late fall–run Chinook salmon include . . . pollution (*e.g.*, municipal discharges and agricultural runoff), ... (Moyle et al. 2008:141–143)"). *Id.* at 5.8-39 ("NMFS (2008) concluded that EPA registration of chlorpyrifos, diazinon, and malathion would jeopardize the continued existence of, and destroy or adversely modify critical habitat for, the Central Valley spring-run Chinook salmon ESU, the Sacramento River winter-run Chinook salmon ESU, and the California Central Valley steelhead DPS"); National Academy of Sciences, "A Scientific Assessment of Alternatives for Reducing Water Management Effects on Threatened and Endangered Fishes in California's Bay–Delta," p. 42 (2010) ("It has long been recognized that contaminants are present in the delta, have had impacts on the fishes, and may be increasing (Linville et al., 2002; Davis et al., 2003; Edmunds et al., 1999).

Native American traditional uses and religious ceremonies involving salmon continue on the Sacramento River and, to a lesser degree, the San Joaquin River, and their tributaries. As the United States District Court for the Eastern District of California recently ruled, "salmon have sustained the Winnemem Wintu and have formed the foundation of the Tribe's cultural and spiritual ceremonies and beliefs." Order, p. 88. (May 18, 2010). Judge Wanger specifically recognized the "significant cultural and spiritual interests of the Winnemem Wintu" tied to the health of salmon. *Id.*, pp. 88-89. The District Court relied upon the declaration of Gary Hayward Slaughter Mulcahy, the Governmental Liaison and a Tribe member of the Winnemem Wintu Tribe. As Mr. Mulcahy testified to the Court,

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> For centuries, the Winnemem Wintu have had a deep cultural and spiritual relationship with the salmon that utilize the Sacramento River and its tributaries. We sing to the salmon and the waters that sustain them. Our history, traditions, ceremonies, and culture are filled with respect, reverence, appreciation, and dependence on the salmon and these waters. Salmon were the staple of the Winnemem Wintu. Salmon are the food necessary to complete and fulfill many of the Winnemen Wintu's very special sacred ceremonies. Salmon are the sustainer of health and life of the Winnemem Wintu. We believe that when the first spirits were choosing what form they would take (i.e., Salmon, Eagle, Bear, Human, etc.), when Human chose to be human, the Grandfather spirit said that these Humans will need lots of help, and each of the other spirits gave something to Humans to help them through life. We believe that Salmon gave us speech and in return we promised to always speak for them. This

> is remembered and celebrated in ceremonies on the McCloud River, Sacramento River, Squaw Creek and at Mt. Shasta several times a year. We believe that if the salmon go, the Winnemem Wintu will also disappear.

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Declaration of Gary Hayward Slaughter Mulcahy, ¶ 3 (March 12, 2010). The Tsi-Akim Maidu Tribe conducts a "calling back the salmon" ceremony on the Yuba River. http://www.callingbackthesalmon.com/ceremony.php. The PEIR must gather in and discuss relevant information regarding Native American cultural and religious uses of salmon that may be affected by the Regional Board's proposal to authorize contaminants affecting salmon in the Central Valley.

3. The PEIR fails to address public health impacts of authorizing continued discharges of pesticides and other pollutants from irrigated lands effluent to groundwater.

As early as March 2003, CSPA and others urged the Regional Board to consider human health impacts of authorizing irrigated land discharges in its EIR. CSPA et al. Scoping Comments (March 12, 2003) (EIR must consider "human health throughout the Central Valley and California in terms of both acute and chronic impacts including, but not limited to: - children, including residents and school children - laborers, including farmworkers, farmers, pesticide appliers, etc. – residents – anglers - pregnant women - newborn infants"). Despite that request, the PEIR has opted to ignore potential human health impacts of the various ILRP alternatives approval of continuing irrigated land discharges.

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More than two million Californians have been exposed to harmful levels of nitrates in drinking water over the past 15 years and the population of those exposed keeps growing. The PEIR acknowledges the extent of nitrate contamination and includes, as Figure 5.9-17, a map that shows nitrate contamination to be concentrated in the Central Valley. Incredibly, however, the PEIR makes no attempt to analyze how nitrogen-based fertilizer application in the Central Valley results in the exposure of the public to contaminated groundwater, the health impacts of that exposure, or how implementation of any of the five alternatives would reduce exposure, other than to say, for Alternative 1:

> Nutrient management would improve both surface water quality and groundwater quality by improving the use of chemicals and using improved application techniques, and by limiting the use of nutrients as fertilizer that could potentially seep to groundwater and add nitrate to the groundwater table.

PEIR, p. 5.9-14.

The assertion that ongoing nutrient management efforts would somehow improve water quality is not borne out by recent data. In fact, the status quo, as proposed in Alternative 1, has resulted in an increase, statewide, in the number of wells that exceeded the health limit for nitrates, from nine in 1980 to 648 by 2007. http://articles.sfgate.com/2010-05-17/news/20901575_1_nitrate-contamination-water-supply-water-systems. In Tulare County, more than 40% of private domestic water wells exceed the drinking water standard for nitrate. http://www.swrcb.ca.gov/ gama/docs/ekdahl_gra2009.pdf. On the basis of more than 25 years of data, the number of wells that exceed the drinking water standard for nitrate is growing as a percentage of all nitrate detections. http://www.swrcb.ca.gov/gama/docs/ekdahl_gra2009.pdf Clearly the status quo is not working.

Health effects of exposure to nitrates most notably results in methemoglobinemia or "blue baby syndrome." Toxic effects of methemoglobinemia occur when bacteria in the infant stomach convert nitrate to more toxic nitrite, a process that interferes with the body's ability to carry oxygen to body tissues. Infants with these symptoms need immediate medical care since the condition can lead to coma and eventually death. Pregnant women are susceptible to methemoglobinemia and should be sure that the nitrate concentrations in their drinking water are at safe levels. Additionally, some scientific studies suggest a linkage between high nitrate levels in drinking water with birth defects and certain types of cancer. http://www.swrcb.ca.gov/water_issues/programs/gama/docs/coc_nitrate.pdf.

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The PEIR should be rewritten to include an assessment of the potential for the public to be exposed to nitrates in drinking water from agricultural practices in the Central Valley and measures implemented as a result of the ILRP. This is especially important to the extent the Regional Board anticipates the installation of numerous tailwater recovery systems. *See* Technical Memo, p. A-2. The assessment of each alternative should include an estimate of nitrogen loading to fields; nitrogen fate and transport in soil, surface water, and groundwater; nitrogen monitoring; and a summary nitrogen impacts to water supplies. Linking monitoring to measurement of each of the alternatives is critical. An annual assessment of the performance of the alternative that is selected should be required and use of the 10,000-well California Department of Public Health database should be required as a tool for evaluation.

Another potential health impact unaddressed by the PEIR is the potential threats from fecal contamination of wells and surface waters. As the Existing Conditions Report tells us:

> The presence of pathogen indicators, such as fecal coliform and *E. coli*, are ubiquitous in water samples collected throughout the Central Valley and are frequently measured at levels higher than the EPA recommended criterion for *E. coli*. Not all strains of *E. coli* are pathogenic, but the presence of *E. coli* or fecal coliform is an indicator of fecal contamination.

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Several coalitions funded a study to determine the sources of *E. coli* contamination.

Existing Conditions Report, p. 3-11. See also U.S. EPA, "Conceptual Model For Pathogens and Pathogen Indicators in The Central Valley and Sacramento-San Joaquin Delta - Final Report, " p. ES-1 (Aug. 24, 2007) (highest concentrations of E. coli data "were observed for waters affected by urban environments and intensive agriculture in the San Joaquin Valley") (http://www.swrcb.ca.gov/rwqcb5/water_issues/drinking_water_policy/concept_path_indicators/cover_toc_es.pdf). As the California Department of Public Health's health notices explain:

> Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.

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DPH, Tier 1 Fecal Coliform or E. coli Notice Template (http://www.cdph.ca.gov/certlic/drinkingwater/Documents/Notices/Tier%201%20Fecal%20Coliform%20or%20E%20coli%20Notice.doc). Despite its ubiquitous presence and clear connection to irrigated land discharges, the only mention of pathogens in the PEIR is a passing reference in the Fisheries section. PEIR, p. 5.8-49 ("Pathogens are monitored for potential exceedance of trigger limits in relation to human health. Pathogens of concern to fish may affect fish populations in the program area, but data are insufficient to draw any conclusions about existing effects"). Like nitrates, no effort is made in the PEIR to discuss the obvious human health and recreational impacts that are adversely affected by an ILRP that authorizes coliform discharges from farms.

Lastly, the PEIR fails to consider any human health impacts PEIR associated with discharges of other pollutants, including certain metals, that will be authorized through the ILRP. The Existing Conditions Report acknowledges that irrigated land discharges authorized by the ILRP will mobilize various metals that can pose serious human health risks, including lead and arsenic. Existing Conditions Report, p. 3-55 ("elevated levels of naturally occurring metals that are mobilized and suspended in agricultural return flows are common in these watersheds—such as copper, arsenic, cadmium, boron, nickel, lead, and selenium"). The PEIR also should explore the human health impacts of ILRP-authorized discharges of metals.

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J. PEIR's Analysis of Many Key Potential Impacts and the Alternatives' Proposed Mitigations Are Not Supported by Substantial Evidence.

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The alternatives, at their core, are projects by which the Regional Board proposes to authorize discharges of polluted effluent from irrigated lands to surface and

groundwater throughout the Central Valley. Each alternative includes various program elements which are the mitigations proposed to purportedly reduce the effect of the Regional Board authorizing the discharge of hundreds of millions of gallons of polluted effluent. The PEIR's discussion of impacts boils down to a discussion of the alternatives' proposed mitigation measures. In addition to those proposed mitigations, the actual dischargers would have to implement site-specific mitigation measures, *i.e.* BPTC, in order to address the impacts of discharging to the State's waters.

The PEIR fails to substantiate or properly analyze the alternatives' programmatic-level mitigation measures, including for example the effectiveness of any FWQMPs and reporting requirements, monitoring requirements, and third party actions. Nor does the PEIR adequately discuss the effectiveness in reducing pollution of any of the BMPs that are listed and which might achieve BPTC. The PEIR leaves out any discussion of numerous management measures that likely will be applied on irrigated lands. Lastly, the PEIR fails to analyze cumulative impacts of the alternatives when considered with numerous other projects in the Central Valley relating to water diversions, dam operations, proposed development, pending pesticide registration proceedings, dredging projects and others that are and will affect water quality, fisheries, and other impacts.

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Mitigation measures must be designed to minimize, reduce or avoid an identified environmental impact or to rectify or compensate for that impact. CEQA Guidelines § 15370. Mitigations may be proposed as part of the project but must still be fully discussed and analyzed. "The discussion of mitigation measures shall distinguish between the measures which are proposed by project proponents to be included in the project and other measures proposed by the lead, responsible or trustee agency or other persons which are not included but the lead agency determines could reasonably be expected to reduce adverse impacts if required as conditions of approving the project." CEQA Guidelines § 151126.4(a)(1)(A)

Where several mitigation measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified. *Id.*, § 15126.4(a)(1)(B). A lead agency may not make the required CEQA findings unless the administrative record clearly shows that all uncertainties regarding the mitigation of significant environmental impacts have been resolved. A public agency may not rely on mitigation measures of uncertain efficacy or feasibility. *Kings County Farm Bureau*, 221 Cal.App.3d at 727 (finding groundwater purchase agreement inadequate mitigation measure because no record evidence existed that replacement water was available). "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. CEQA Guidelines § 15364.

CEQA requires the lead agency to adopt feasible mitigation measures that will substantially lessen or avoid the Project's potentially significant environmental impacts and describe those mitigation measures in the CEQA document. Pub. Res. Code §§ 21002, 21081(a), 21100(b)(3); CEQA Guidelines § 15126.4. Mitigation measures must be fully enforceable through permit conditions, agreements or other legally binding

instruments. *Id.* at § 15126.4(a)(2). If a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure shall be discussed but in less detail than the significant effects of the project as proposed. CEQA Guidelines § 151126.4(a)(1)(D).

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1. The analysis of impacts to water quality is flawed because there is no evidentiary support for the assumption that mitigation measures proposed by each alternative would be equally effective.

The most obvious impact of the Regional Board authorizing discharges of waste from irrigated lands to surface or groundwater is impaired water quality. The PEIR, however, takes an entirely cavalier approach to evaluating this obvious impact. No effort is made in the PEIR to discuss the efficacy and uncertainty of the various monitoring and management plans proposed by each alternative. The PEIR makes no effort to quantify or compare the actual pollution reductions that would be likely to occur under each alternative. Nor does the PEIR discuss whether the monitoring proposed or omitted by each alternative would be effective in informing the Regional Board and public about whether irrigated lands pollution in specific areas is increasing or decreasing. Nor does the PEIR compare how long it would take to figure out pollution trends based on the level of monitoring proposed or omitted in each alternative.

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As mentioned above, a fundamental flaw in the PEIR is its failure to estimate the relative effectiveness of the five alternatives. It generally assumes that they will all lead to sufficient pollution reductions. This flaw is magnified in the discussion of impacts to water quality. In addressing water quality impacts, the PEIR assumes that surface water quality improvements under Alternative 1 would be the same as all of the other alternatives, including Alternative 5. As for groundwater, the PEIR makes a similar assumption – that Alternatives 2 through 5 will be equally effective at reducing pollution to groundwater (the PEIR does acknowledge that not addressing groundwater at all would be less effective).

Thus, for Alternative 1, the PEIR states that "[i]t is expected that existing water quality conditions, such as the surface water quality impairments detailed in the environmental setting section above and in the ECR, would improve over time as the program would continue to implement surface water management practices and management plans." PEIR, p. 5.9-14. The same is said for Alternatives 2 and 3, even though the former reduces water quality monitoring and the latter eliminates water quality monitoring. *Id*, pp. 5.9-16 ("Under Alternative 2, existing water quality impairments are expected to improve over time as third parties develop and implement surface water and groundwater quality management plans"), 5.9-17 ("Alternative 3, existing surface water quality and groundwater quality impairments are expected to improve over time as the FWQMPs are developed and implemented"). The same unexplained expectation is stated for Alternatives 4 and 5, simply incorporating the assertion made for Alternative 2. Id., p. 5.9-18 (Alternative 4) ("Potential impacts to water quality and hydrology under Alternative 4 would be similar to those described for

Alternative 2"); p. 5.9-18 ("Potential impacts to water quality and hydrology under Alternative 5 would be similar to those described for Alternative 2").

These expectations are unsupported by any evidence in the record. The Regional Board cannot point to anything in its current record that "clearly shows that all uncertainties" of the mitigations set forth in each alternative will eliminate the well-documented significant environmental impacts of allowing irrigated lands to discharge waste to surface and ground water.

The PEIR's simplistic and conclusory assertions fail to assist the Regional Board or the public in discerning the real life differences in pollution discharge rates that the different mitigations incorporated into each of the proposed alternatives will have. For example, in regard to FWQMPs, it is simply not realistic to assume that the two alternatives that do not require FWQMPs – Alternatives 1 and 2 – will be as effective at identifying and implementing measures as the alternatives that do require dischargers to prepare FWQMPs and, at least for two of them, require them to be submitted to the Regional Board. Likewise, for the alternatives that require FWQMPs, there would have to be some difference in effectiveness and pollution reductions between the two alternatives (3 and 4) that would have the Regional Board review and approve FWQMPs and Alternative 5's provision that FWQMPs not be reviewed or approved. Conversely, if the proposal to have the Regional Board approve every FWQMP before they go into effect slows down their implementation, then there would undoubtedly be an impact during the term the Board did not act on any FWQMPs. Until the PEIR can remove the uncertainty of how the Regional Board can assure BPTC is implemented without requiring FWQMPs, the Regional Board may not rely on alternatives that do not propose FWQMPs.

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In terms of monitoring, no evidence could support the PEIR's assumption that Alternative 3's omission of any water quality monitoring for surface or groundwater discharges could somehow be as effective as any of the alternatives that do provide some water quality monitoring. And as between Alternative 5's farm-specific monitoring requirement and Alternatives 1, 2 and in effect 4's proposal to rely on regional monitoring, no evidence could support the PEIR's assertion that the regional monitoring measures will tell the Board or anyone whether a particular dischargers' management measures in fact reduce any pollution discharges and would address specific dischargers' pollution problems as promptly as a measure that required them to monitor their discharges. Until the PEIR sufficiently discusses and eliminates the obvious uncertainty of a regional monitoring mitigation measure to evaluate the effectiveness of an on-site management measure miles upstream, the Regional Board cannot rely on alternatives relying on such regional monitoring.

As noted above, the PEIR's assumption that the monitoring required by each of the proposed alternatives is equally effective, is inconsistent with the PEIR's acknowledgment in its discussion of fisheries that more farm-specific monitoring results in more pollution reductions and fewer impacts. PEIR, p. 5.8-52 ("given the probability

of increased monitoring of individual farms, and especially those at higher risk of generating significant impacts—in addition to wellhead protection, nutrient management plans, tracking of nutrient and pesticide application, and monitoring of individual wells—the positive benefit of Impact FISH1 (improved water quality) would probably be greater under Alternative 4 than under Alternative 2 or Alternative 3"); *Id.*, p. 5.8-53 (Alternative 5) ("Given the emphasis on monitoring of individual farms, wellhead protection, nutrient management plans, tracking of nutrient and pesticide application, monitoring of individual wells, and potential installation of monitoring wells, the positive benefit of Impact FISH1 (improved water quality) probably would be greater under Alternative 5 than under any other alternative"). Although as discussed below, these analyses also must be better analyzed, the general observation is obvious and the PEIR's failure to discuss these differences in the water quality section renders it inadequate.

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Nor is there any attempt in the water quality discussion to quantify the effectiveness of management measures that will likely be employed by individual farms. The PEIR lists a handful of likely measures. This list is incomplete, omitting numerous measures that one can find by reviewing some of the management plans that have been developed. Of particular note is the complete omission in the PEIR of any discussion of integrated pest management options to reduce the use or rate of pesticide applications. Until the Regional Board can sufficiently discuss the available management measures and whether any of them, alone or in combination will effectively eliminate the significant impacts of the Board authorizing waste discharges from irrigated lands, then the Board cannot rely on them.

2. The analysis of impacts to fisheries is flawed because there is no evidentiary support for the assumption that all alternatives would be equally effective at protecting fisheries

The PEIR's handling of impacts to fisheries suffers from flaws similar to those described in the discussion of water quality above. The PEIR's discussion of fisheries impacts, again without any evidence or common sense, simply assumes that the same level of management measures and surface water pollution control effectiveness will result with implementation of any of the alternatives, with or without FWQMPs and without regard to how far away some water quality monitoring may (or may not) be occurring. PEIR, p. 5.8-50 ("Under this alternative, management practices would be implemented to reduce the levels of identified constituents of concern below the baseline conditions. Monitoring and management plan requirements of Alternative 1 are expected to result in further implementation of management practices by growers") As for groundwater, the same is true with the exception of Alternative 1.

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The PEIR's assertion that Alternative 1 will improve surface water quality is entirely unsupported by any evidence. Alternative 1, now in its seventh year of implementation, has failed to result in the Regional Board documenting the installation of a single management measure anywhere in the Central Valley. Nor is there any evidence of a trend that the rampant violations of water quality standards throughout the

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Central Valley resulting from irrigated lands discharges are on the mend. Nevertheless, the PEIR asserts that "[i]mprovements to surface water quality from implementation of management practices [under Alternatives 1] in impaired water bodies receiving inputs from lands in the program area are likely to benefit fish (e.g., by reducing contaminant loads and decreasing sedimentation and total suspended solids)." PEIR, p. 5.8-50. The PEIR makes the same assertion for Alternative 2. *Id.*, p. 5.8-52. As discussed above, the coalitions' current plans are to have informal meetings with some farms to discuss BMPs. *See supra*, Section F.1. The coalitions have no legal authority to require implementation of any BMPs by any of their members. What, if any, BMPs may result from the proposed meetings is anybody's guess. And, without FWQMPs, whether or not the Regional Board would even be aware of a specific farmer's installation of measures is not clear. The PEIR's cavalier assertion that Alternatives 1 and 2, despite omitting any FWQMPs or farm-specific monitoring could somehow lead to the certain implementation of pollution reduction measures, does not resolve the uncertainties that coalitions and regional monitoring will resolve irrigated land's water pollution impacts.

Although the PEIR does acknowledge some relevant benefit from the mitigations included in Alternatives 4 and 5 farm-specific monitoring proposals, coupled with the farm-specific plan requirements, the discussion is still insufficient to remove uncertainties about the efficacy of Alternative 4's proposal. *See* PEIR, pp. 5.8-52; 5.8-53. Specifically, because a discharger may opt out of farm-specific monitoring in exchange for participation in regional monitoring, it is uncertain whether any discharger will conduct farm-specific water quality monitoring. As a result, and as discussed above, there is no certainty that the Regional Board will be able to determine that any measures installed on that farm will amount to BPTC or assure compliance with water quality standards. In addition, the PEIR's discussion of the relative benefit to water and additional pollution reductions one should expect from requiring FWQMPs coupled with farm-specific monitoring is not specific enough for the Regional Board to compare those benefits to the other alternatives.

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Even assuming all of the alternatives may have some benefit on water quality, the PEIR also makes no effort to determine the time frames within which any such improvements would be realized under the various alternatives. Given the frames of reference in each alternative, it appears clear that some, for example, Alternative 5, would result in measures being installed faster and hence pollution reductions being achieved more quickly, as compared to any other alternative.

The PEIR cannot succeed in achieving the goals of CEQA if it shies away from frankly addressing the mitigations proposed in each alternative and comparing their ability or inability to reduce pollution that will be discharged to surface and groundwater from irrigated lands.

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3. The PEIR fails to discuss numerous cumulative impacts to water quality and fisheries habitat currently plaguing the Delta and other areas of the Central Valley.

The PEIR attempts to pass on evaluating the cumulative impacts of the ILRP. PEIR, p. 6-1 ("Because of the unidentified location of potential impacts, the Lead Agency has not identified any projects or programs adequately similar in nature, location, and type to result in a meaningful comparative analysis"). The notion that either the geographic area or obvious water quality and fisheries impacts of allowing discharges of irrigated lands waste is unknown is patently incorrect, as the preceding sections of the PEIR make clear despite their obvious flaws. The PEIR recognizes a number of specific categories of actions in the Central Valley that are contributing to impacts to fisheries and water quality, in addition to discharges from agricultural lands. Of particular note is the operation of the massive state and federal water projects, which are having obvious cumulative impacts to fish in the Central Valley by killing massive numbers of fish at their respective pumping facilities. *See* http://www.swr.noaa.gov/ocap/Executive_summary_to_NMFS'_CVP-SWP_operations_BO_RPA.pdf; 5.8-17 ("water projects have adversely modified [longfin smelt's] habitat, distribution, food supply, and probably abundance"); *See* NMFS Biological Opinion Regarding Proposed Long-Term Operations of the Central Valley Project And State Water Project (June 4, 2009) (http://www.swr.noaa.gov/ocap/NMFS_Biological_and_Conference_Opinion_on_the_Long-Term_Operations_of_the_CVP_and_SWP.pdf). Both EPA's registration of various pesticides that the National Marine Fisheries Service has determined will jeopardize the continued existence of listed salmon must be considered, especially considering NMFS's proposed mitigation requirements prohibiting pesticide application on irrigated lands within 1000 feet of water. PEIR, p. 5.8-39 ("NMFS (2008) concluded that EPA registration of chlorpyrifos, diazinon, and malathion would jeopardize the continued existence of, and destroy or adversely modify critical habitat for, the Central Valley spring-run Chinook salmon ESU, the Sacramento River winter-run Chinook salmon ESU, and the California Central Valley steelhead DPS"); NMFS Biological Opinion on the Effects of the U.S. Environmental Protection Agency's Proposed Registration of Pesticide Products (Nov. 18, 2008) (http://www.nmfs.noaa.gov/pr/pdfs/pesticide_biop.pdf).

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The proposed Peripheral Canal being pursued by various agencies also is a reasonably foreseeable project that will enormously exacerbate water quality and fisheries impacts within the Delta. *See* Bay Delta Conservation Plan, Status Update 3 (June 2010). Likewise, the Regional Board is in the best position to evaluate the cumulative impacts of the hundreds of discharge permits it has issued to dischargers throughout the Central Valley. *See* Central Valley Regional Board Web Site, Adopted Orders (http://www.swrcb.ca.gov/centralvalley/board_decisions/adopted_orders/index.shtml). The PEIR also should evaluate, for example, cumulative bacterial issues resulting from rampant sewage overflows from municipalities throughout the Valley in combination with the bacteria coming from farms. http://www.waterboards.ca.gov/water_issues/programs/sso/sso_map/sso_pub.shtml (accessed September 27, 2010).

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These and other cumulative impacts must be addressed in the PEIR. Recognizing that several projects may together have a considerable impact, CEQA requires an agency to consider the "cumulative impacts" of a project along with other projects in the area. Pub. Resources Code §21083(b); CEQA Guidelines §15355(b). It is vital that an agency assess "the environmental damage [that] often occurs incrementally from a variety of small sources . . ." *Bakersfield Citizens*, 124 Cal.App.4th at 1214. This requirement flows from CEQA section 21083, which requires a finding that a project may have a significant effect on the environment if "the possible effects of a project are individually limited but cumulatively considerable. . . . 'Cumulatively considerable' means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." "Cumulative impacts" are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." CEQA Guidelines §15355(a). "[I]ndividual effects may be changes resulting from a single project or a number of separate projects." CEQA Guidelines § 15355(a).

"The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." *Communities for a Better Environment v. Cal. Resources Agency ("CBE v. CRA")* (2002) 103 Cal.App.4th 98, 117. A legally adequate cumulative impacts analysis views a particular project over time and in conjunction with other related past, present, and reasonably foreseeable probable future projects whose impacts might compound or interrelate with those of the project at hand.

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> As the court recently stated in *CBE v. CRA*, 103 Cal. App. 4th at 114:
>
> Cumulative impact analysis is necessary because the full environmental impact of a proposed project cannot be gauged in a vacuum. One of the most important environmental lessons that has been learned is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant when considered individually, but assume threatening dimensions when considered collectively with other sources with which they interact.

In *Kings County Farm Bureau v. City of Hanford*, 221 Cal.App.3d at 718, the court concluded that an EIR inadequately considered an air pollution (ozone) cumulative impact. The court said: "The [ ] EIR concludes the project's contributions to ozone levels in the area would be immeasurable and, therefore, insignificant because the [cogeneration] plant would emit relatively minor amounts of [ozone] precursors compared to the total volume of [ozone] precursors emitted in Kings County. The EIR's analysis uses the magnitude of the current ozone problem in the air basin in order to trivialize the project's impact." The court concluded: "The relevant question to be addressed in the EIR is not the relative amount of precursors emitted by the project

when compared with preexisting emissions, but whether any additional amount of precursor emissions should be considered significant in light of the serious nature of the ozone problems in this air basin."[1] The *Kings County* case was recently reaffirmed in *CBE v. CRA*, 103 Cal.App.4th at 116, where the court rejected cases with a narrower construction of "cumulative impacts."

Similarly, in *Friends of Eel River v. Sonoma County Water Agency*, (2003) 108 Cal. App. 4th 859, the court held that the EIR for a project that would divert water from the Eel River had to consider the cumulative impacts of the project together with other past, present and reasonably foreseeable future projects that also divert water from the same river system. The court held that the EIR even had to disclose and analyze projects that were merely proposed, but not yet approved. The court stated, CEQA requires "the Agency to consider 'past, present, and probable future projects producing related or cumulative impacts . . . .' (Guidelines, § 15130, subd. (b)(1)(A).) The Agency must interpret this requirement in such a way as to 'afford the fullest possible protection of the environment.'" *Id.*, at 867, 869. The court held that the failure of the EIR to analyze the impacts of the project together with other proposed projects rendered the document invalid. "The absence of this analysis makes the EIR an inadequate informational document." *Id.*, at 872.

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The court in *Citizens to Preserve the Ojai v. Bd. of Supervisors* (1985) 176 Cal.App.3d 421, held that an EIR prepared to consider the expansion and modification of an oil refinery was inadequate because it failed to consider the cumulative air quality impacts of other oil refining and extraction activities combined with the project. The court held that the EIR's use of an Air District Air Emissions Inventory did not constitute an adequate cumulative impacts analysis. The court ordered the agency to prepare a new EIR analyzing the combined impacts of the proposed refinery expansion together with the other oil extraction projects.

As the PEIR notes, water quality standards already are not being met in locations throughout the Delta. As the National Academy of Sciences report and a plethora of other reports and agency decisions make clear, fisheries and water quality already are adversely affected by the massive water diversions of the State and Federal water projects and flow reductions caused by dams throughout the Valley. As NMFS makes clear, pesticide use currently approved by EPA registrations throughout the Valley is

[1] *Los Angeles Unified v. City of Los Angeles*, 58 Cal.App.4th at 1024-1026 found an EIR inadequate for concluding that a project's additional increase in noise level of another 2.8 to 3.3 dBA was insignificant given that the existing noise level of 72 dBA already exceeded the regulatory recommended maximum of 70 dBA. The court concluded that this "ratio theory" trivialized the project's noise impact by focusing on individual inputs rather than their collective significance. The relevant issue was not the relative amount of traffic noise resulting from the project when compared to existing traffic noise, but whether any additional amount of traffic noise should be considered significant given the nature of the existing traffic noise problem.

threatening salmon with extinction throughout the Central Valley. In short, the need for a cumulative impact analysis of water quality, fisheries, and other related impacts like human health, cultural, recreational, air quality, and aesthetic cannot be seriously questioned. It is plain that massive cumulative impacts from water diversions, pesticide use approvals and, with the ILRP, massive pollution from irrigated lands are occurring throughout the Central Valley and particularly in the Delta. 104-58 cont'd

4. The PEIR's discussion of possible agricultural impacts is inadequate because it relies on a flawed economic analysis.

CSPA retained the economic consulting firm ECONorthwest to evaluate and comment on the economic analysis accompanying the PEIR. *See infra*, Section IV. The PEIR's consideration of agricultural impacts relies almost exclusively on the economic analysis. PEIR, p. 5.10-1 ("The catalyst for these impacts is the cost of achieving and maintaining compliance with the alternatives as discussed in *Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program* (ICF International 2010) (Draft ILRP Economics Report), incorporated herein by reference"). Because the economic analysis is not reliable, as is discussed in detail below and in the accompanying ECONorthwest Review, the PEIR's discussion of asserted impacts to agricultural production is unsupported by substantial evidence. 104-59

IV. THE ECONOMIC ANALYSIS RELIED UPON BY THE PEIR AND STAFF REPORT IS SUBSTANTIALLY DEFICIENT AND BIASED TOWARD THE LEAST EFFECTIVE AND COALITION-PREFERRED ALTERNATIVES.

Both the PEIR, especially in its discussion of potential agricultural impacts, and the Staff Report rely extensively on ICF International's Technical Memo. A review of that analysis by ECONorthwest, a firm exclusively dedicated to expert economic consulting, reveals fundamental errors and biases. Because of the following errors, any reliance on the Technical Memo by the Regional Board and its staff would be an abuse of discretion. The Regional Board cannot substantiate a finding under Resolution No. 68-16 or the federal antidegradation policy that under a newly adopted ILRP, "the highest water quality consistent with maximum benefit to the people of the State will be maintained." Resolution No. 68-16 (emphasis added). Similarly, to the extent the Board intends to rely on any conditional waivers to implement the next version of the ILRP, a finding by the Regional Board pursuant to Water Code § 13269 that such waiver is in the public interest also would not be supported by substantial evidence. 104-60

The ECONorthwest Review discloses the following fundamental errors in the preparation of the Technical Memo.

1. **The Analytical Objectives and Approach**: ECONorthwest demonstrates that the Technical Memo ignores generally accepted guidelines for this type of analysis, including for example guidelines prepared by the California Department 104-61

of Water Resources, an agency with, of course, considerable experience interfacing with California's agricultural community. Because of this failure, ECONorthwest concludes that the Technical Memo "provides decision-makers and stakeholders with biased and unreliable descriptions of the economic outcomes likely to materialize if the Board were to implement any of the alternatives in the EIR." ECONorthwest Review, pp. 1, 2-5. 104-61 cont'd

2. **Baseline**: ECONorthwest's review establishes that ICF International's analysis "does not compare the alternatives against an appropriate baseline that describes potential future conditions absent implementation of each alternative" further biasing its conclusions. Hence, it provides an incomplete, biased representation of the alternatives' economic consequences. ECONorthwest Review, pp. 1, 5-7. 104-62

3. **Management Practices**: ECONorthwest's review discloses that ICF International only considered a truncated range of the more expensive management practices in determining projected costs of the various alternatives and excluding the less expensive and more efficient practices. ECONorthwest Review, pp. 1, 7-9. As a result, "the EIR and *Technical Memo* provide an incomplete and biased representation of the choices that realistically are available to the [Regional] Board." *Id.*, p. 1. 104-63

4. **Costs and Benefits**: ECONorthwest's review shows that the Technical Memo incorrectly calculates the costs of adopting practices that improve water quality and completely overlooks major categories of economic costs and benefits, once again skewing its conclusions to support the less rigorous and coalition-preferred alternatives. *See* ECONorthwest Review, pp. 1, 9-11. 104-64

5. **Risk and Uncertainty**: ECONorthwest also criticizes the Technical Memo for failing to provide information and analysis of the risks and uncertainty facing irrigators and others from each proposed alternative. The omission of this standard component of any complete economic analysis of a program such as the IRLP is a fatal flaw in the Technical Memo. *See* ECONorthwest Review, pp. 1, 11. 104-65

6. **Regional Impacts**: Lastly, ECONorthwest's review demonstrates that the Technical Memo's discussion of regional impacts "emphasize[s] negative outcomes and ignore[s] the analytical assumptions that overstate costs and the resulting negative outcomes." ECONorthwest Review, p. 1. Even with this built-in bias, the Technical Memo still must acknowledge the improvement to the Central Valley's economy by implementation of Alternatives 3 through 5. An accurate economic analysis likely would further support the economic benefit of the alternatives that incorporate farm specific measures. 104-66

Because of these fundamental flaws, the Technical Memo, as well as the portions of the PEIR and Staff Report that rely upon it, must be redone and recirculated in order to provide the Regional Board with substantial evidence upon which it may rely.

V. THE STAFF REPORT FAILS TO ACKNOWLEDGE THE LEGAL AND POLLUTION CONTROL SHORTCOMINGS OF THE CURRENT ILRP

The Staff Report disingenuously seeks to justify a predetermined and environmentally non-protective course of action by misrepresenting the present program and carefully crafting a needlessly expensive and overly bureaucratic strawman to reject alternatives that would better protect water quality. Water quality problems and the adverse impacts resulting from the continuing discharge of agricultural pollutants are largely ignored while the Staff Report focuses on potential impacts to farmers from having to comply with water quality standards. 104-67

A. Rather Than Keep Its Eye On The Regional Board's Primary Mission To Protect Water Quality, Staff's Analysis And Proposed Alternative Make Believe The Serious Flaws In The Current Program Are Actually Benefits.

The "elements" from each of the alternatives selected by Regional Board staff to be included in the long-term irrigated lands program (or recommended alternative) are flawed and represent the continuation of a program that has failed to protect water quality.

There can be no doubt that, after seven years, the ILRP has not demonstrated any success at protecting or even reducing the rampant pollution of Central Valley waters by irrigated land dischargers. According to the *Revised Draft of the 2007 Review of Monitoring Data for the Irrigated Lands Conditional Waiver Program*, 12 July 2007, between 2003 and 2007, agricultural coalitions and the U.C. Davis Irrigated Lands Monitoring Project collected data from 313 sites throughout the Central Valley. Coalitions or individual water agencies monitored 148 sites and U.C. Davis monitored the remaining 165 sites. While the adequacy of monitoring (*i.e.*, frequency and comprehensiveness of monitoring) varied dramatically from site to site, the report presents a dramatic panorama of the epidemic of pollution caused by the discharge of agricultural wastes. Toxicity to aquatic life was present at 63% of the sites monitored for toxicity (50% were toxic to more than one species). Pesticide water quality standards were exceeded at 54% of sites monitored for pesticides (many for multiple pesticides). One or more metals violated criteria at 66% of the sites monitored for metals. Human health standards for bacteria were violated at 87% of sites monitored for coliform. More than 80% of the locations reported exceedances of general parameters (dissolved oxygen, pH, salt, TSS). It would be difficult for anyone reading the Surface Water Summary (p. 23-44) of the Staff Report to appreciate the extent of pollution caused by irrigated agriculture. An Examination of the Draft 2007 Review of Monitoring Data, Irrigated Lands Condition Waiver Program, CSPA, p. 1-2. The PEIR 104-68

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Staff Report discussion of surface water quality also fails to describe and discuss the monitoring results from other programs (i.e., NPDES, SWAMP, etc.).

After seven years of the irrigated lands program, the Central Valley Regional Water Quality Control Board still does not know who is actually discharging pollutants, the points of discharge, the constituents discharged, receiving water impacts, whether management measures have been implemented or if those measures are BPTC that are effective in reducing pollutant discharges. The Board cannot enforce against recalcitrant dischargers because it cannot know who they are and dischargers have little incentive to comply because they know that monitoring far downstream cannot produce the evidence to hold them accountable.

The irrigated lands waiver adopted by the Central Coast Regional Board in 2004 is illustrative. The Central Coast Board conditional waiver is substantially more rigorous than the waiver adopted by Region 5. The Central Coast Board had hopes that, because there were fewer irrigated lands dischargers in the region, they would be able to see significant water quality improvements within the first term of the waiver. The Central Coast waiver requires farmers to enroll with the Board, prepare individual farm management plans, attend water quality education courses and participate in a third-party watershed monitoring program. Yet, it has proved incapable of protecting water quality, even in that smaller region, because it fell short of requiring farm-specific monitoring. If that more robust program in a smaller region could not protect water quality, the less stringent program currently in place and proposed to be continued by staff for the much larger Central Valley will certainly fall even further short of protecting water quality.

104-68 cont'd

Unlike the Central Valley staff's report, the Central Coast staff frankly addressed their existing program's shortcomings . As the Central Coast *Preliminary Draft Staff Recommendations For An Agricultural Order* (February 2010) puts it, "[t]he current Conditional Waiver . . . lacks clarity and does not focus on accountability and verification of directly resolving the known water quality problems" and "[c]urrently, the Water board and the public have no direct evidence that water quality is improving due to the 2004 Conditional Waiver." Central Coast Staff Report, p. 6. It goes on to note, "[t]he current watershed monitoring program only indicates long-term (multi-year), receiving water changes without measuring: 1) if individual agricultural dischargers are in compliance with Conditional Waiver conditions or water quality standards, or 2) if short-term progress towards water quality improvements on farms or in agricultural discharges is occurring" and "[c]urrently, information that provides evidence of on-farm improvements and reductions in pollutant loading from farms is not required, and therefore probably does not exist for most farms. The public, including those who are directly impacted farm discharge, and the Water Board, do not have the necessary evidence of compliance or improvements. This is unacceptable given the magnitude and scale of the documented water quality impacts and the number of people directly affected. At a minimum, we continue to observe that agricultural discharges continue to severely impact water quality." *Id.*, 7.

Acknowledging the failure of its present program (i.e., "Most of the same areas that showed serious contamination from agricultural pollutants five years ago are still seriously contaminated," (*id.* Page 11), Central Coast Board staff has recommended a revised program where dischargers must; 1) enroll to be covered by the order, 2) develop and implement a farm plan that includes management practices, 3) eliminate non-storm water discharges, or use source control or treatment such that non-storm water discharges meet water quality standards, 3) demonstrate through water quality monitoring that individual discharges meet certain basic water quality targets (that are or indicate water quality standards that protect beneficial uses), 4) demonstrate through water quality monitoring that receiving water is trending toward water quality standards that protect beneficial uses or is being maintained at existing levels for high quality water and 5) farm operation must support a functional riparian system and associated beneficial uses. *Id.*, p. 20. Individual monitoring is in addition to the watershed monitoring program. *Id.*, p. 23.

Inexplicably, Central Valley Board staff persists in the illusion that inserting an unaccountable bureaucracy between the Board and actual dischargers and relying upon a monitoring program that ignores numerous waterways and collects ambient data far removed from the point of actual discharges will somehow protect water quality. Right from the opening paragraphs, the Staff Report predetermines its analysis by conjuring up five "[e]lements of the long-term ILRP alternatives found to best achieve evaluation measures are summarized below." Staff Report, p. 2. Four out of five of these elements are baseless. Staff boldly asserts that unaccountable coalitions' "local knowledge" and claimed efficiencies somehow trump the Regional Board taking a lead role in implementing an ILRP; that regional monitoring is more effective at implementing measures than farm-specific monitoring; that providing incentives is better than requiring; and that in order to coordinate with other failed regional programs, the ILRP must also avoid focusing on individual dischargers and only address problems from a distance. As is discussed above in CSPA's comments on the PEIR, these are not attributes of an effective or legal program. Staff's generalizations dramatically conflict with the Central Coast Regional Board staff's more objective and frank assessment. Contrary to Central Valley staff's blind optimism that doing less equals more, the evidence in the record demonstrates that the staff's recommendation will not be able to document any improvements in water quality, the effectiveness of applied management measures or compliance with water quality standards by individual dischargers.

104-68 cont'd

1. Staff cannot continue to pretend that relying on discharger coalitions conducting regional monitoring and management plans with no plan to require BMPs by dates certain will implement BPTC on individual farms and achieve standards in a timely manner.

104-69

The first element that staff claims best achieve its "evaluation measures" is the reliance on "[t]hird-party lead or coalitions groups, as opposed to Central Valley Board lead, to take advantage of local knowledge and administrative/cost efficiencies in dealing with a few groups versus thousands of individual operations."

There is no evidence coalition groups have successfully used their purported "local knowledge" to secure and verify implementation of management measures at the farm level and quantitatively reduce the mass loading of agricultural contaminates. *See supra*, Section G.1. Nor is there any evidence of cost efficiencies that would materialize if coalitions actually instituted a comprehensive program that successfully complied with regulatory requirements and held farmers accountable for implementing management measures and reducing pollutant loading.

Other Central Valley Board regulatory programs with inadequate resources have been far more successful in protecting water quality than the irrigated lands program. For example, the Board has less than a dozen staff to manage a stormwater program that oversees more than 7,500 industrial and construction operations and more than 93 Phase I and Phase II municipal permits. *State of the Central Valley Region*, slide 32, presentation by Executive Officer Pamela Creedon at the Central Valley Water Board meeting of August 2007. The stormwater program requires industrial and construction program applicants to submit a Notice of Intent, develop a comprehensive Stormwater Pollution Prevention Plan (SWPPP), implement BMPs, monitor individual discharges, revise BMPs, iteratively install new BMPs as needed and submit annual reports. Municipal permits are complicated, resource draining and consume the majority of staff time. However, CSPA has reviewed the files of literally hundreds of industrial and construction program permittees and found that the severely understaffed program (the program has less than 12% of needed staff, *Id.*) has been able to routinely review annual reports, conduct many routine site evaluations, send corrective and enforcement notices to numerous facilities. The relative successes of the stormwater program stand in stark contrast to the black hole of the irrigated lands program that remains unable to document any implementation of management measures or reduction of pollutant mass loading. For staff to claim still unproven coalitions as a key element to success is contrary to the available evidence.

104-69 cont'd

2. Staff cannot protect water quality by making believe that regional monitoring results in clear expectations for dischargers or by putting reducing paperwork ahead of protecting water quality.

The next key element to success identified by the Staff Report is to rely upon "[r]egional surface and groundwater quality management plans, as opposed to individual water quality management plans, to minimize paperwork/administrative burdens while clearly defining the expectations and approach for addressing water quality problems." Staff Report, p. 2. Again, staff cannot cite to any evidence that this statement is reliable. Avoiding paperwork is simply a euphemism for not collecting information. At some point, staff has to acknowledge that the Board cannot claim to regulate 30,000 farms without at some point gathering information from them about their pollution discharges. The notion that the requisite information becomes less bureaucratic and involves less paperwork by inserting fictitious entities – with their own layers of management and paperwork – between the Regional Board and the dischargers is nonsensical. And staff has no explanation as to how plans devised on a

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regional basis can clearly define expectations of all relevant dischargers in that area. Especially where, as the PEIR acknowledges, "[t]he appropriate management practice is typically selected on a site-specific or property-specific basis." PEIR, p. 3-9. Even the Staff Report admits that "[w]ith regard to selection of measures and practices, the Central Valley Water Board and USEPA recognize that there is often site-specific, crop-specific, and regional variability that affects the selection of appropriate management measures, as well as design constraints and pollution-control effectiveness of various practices." Staff Report, p. 66-67. Only by addressing site-specific measures that are at least BPTC and assure compliance with standards can expectations and water quality measures be clearly defined. To rely exclusively on regional management plans rather than FWQMPs, the Board will only continue to maintain the existing fog that obscures individual farm's actions or, more likely, inactions. *See supra*, Section F-2.

3. Staff cannot protect water quality by making believe that repeating the regional scale of other monitoring efforts that have not curtailed irrigated lands' pollution dischargers will miraculously characterize effluent quality and BPTC implementation at individual farms.

Staff continues to regulate in a dream state by claiming a third element to achieve success is that "[r]egional surface and groundwater quality monitoring, as opposed to individual or no water quality monitoring, to take advantage of cost efficiencies in coordinating with other monitoring efforts while providing sufficient information to characterize water quality." Once again, staff's claim that regional monitoring miles downstream from a farm's discharge location would characterize that discharger's water quality is absurd. It is not clear what monitoring efforts staff is referring to, but there is no evidence that any regional monitoring effort to date has reduced any irrigated lands pollution in the Central Valley. For example, the Rice Pesticide Program has not succeeded in reducing pesticide discharges from rice fields by relying on regional monitoring. Rice farmers monitor specific fields before releasing their irrigation waters. As discussed above, like the absence of FWQMPs, allowing farm dischargers to rely solely on regional monitoring to determine water quality impacts occurring near their discharge locations or to evaluate whether their management measures are BPTC defies common sense. *See supra*, Sections F.1 - .2, G.2. No current monitoring program is monitoring only farm discharges. Nor has any existing program, including even the current ILRP regional monitoring, reduced the massive pollution from irrigated farms. Any "cost efficiencies" claimed by staff are simply another way of saying they do not want the most relevant information necessary to implement BPTC and achieve water quality standards.

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B. The "Goals and Objectives" selected by a stakeholder group dominated by agriculture protect the regulated community more than they protect water quality, in contrast to virtually every other regulatory program.

As discussed in Section III.C above, CSPA is concerned with the language of the objectives selected by the coalition-dominated stakeholder process. CSPA's concerns are heightened by the further spin placed on the objectives by staff's interpretations of those objectives applied in the staff report. Invariably, staff's interpretation of each objective favors the status quo and avoiding any site specific regulation of farms and trumping resolution 68-16.

Staff restates the PEIR's goals and objectives. Staff Report, pp. 98-99. The objectives, other than the objectives of restoring and/or maintaining beneficial uses, ensuring that all state waters with the Central Valley meet applicable water quality objectives and ensuring that irrigated agricultural discharges do not impair Central Valley communities' and residents' access to safe and reliable drinking water are flawed. In fact, the other four objects work against the successful attainment of restoring beneficial uses and meeting standards. Yet, invariably, the non-water quality or public safety objectives are the hooks which staff uses to propose an ineffectual ILRP recommendation. 104-71

For example, the goal of maintaining the economic viability of agriculture in California's Central Valley is highly subjective because it contains no yardsticks by which to measure impacts to irrigated agriculture and is buttressed by a seriously deficient economic analysis. Retirement of some farmland may be an overall economic benefit where overproduction has depressed commodity prices. Retirement of lands because of an inability to continue externalizing adverse costs of production benefits farmers who internalize those costs and comply with regulatory requirements. Economic viability of agriculture cannot be considered in a vacuum where the costs of agricultural pollution are simply transferred to other economic sectors, *i.e.*, recreation, commercial fishing, public health, municipalities, etc. It is unreasonable to establish a program goal of maintaining the economic viability of agriculture at the expense of other sectors of society who comply with requirements to protect water quality.

Also for example, the objective of maintaining "appropriate" beneficial uses ignores mandates to protect all identified beneficial uses. Encouraging "implementation of management practices that improve water quality in keeping with the first objective without jeopardizing the economic viability for all sizes of irrigated agriculture" ignores the fact that discharging pollutants is a privilege allowable only so long as measures are implemented to reduce or eliminate conditions of pollution. Likewise, providing "incentives for agricultural operations to minimize waste discharge to state waters" ignores that this is a mandated requirement. The objective to coordinate with other programs, such as the Grasslands Bypass Project, TMDLs, CV-Salts and WDRs for dairies is simply a non sequitur as none of those programs have been effective in cleaning up polluted waterways. For example, the Central Valley Board recently

extended the compliance schedule for the Grasslands Bypass Project to more than 20 years. To "promote coordination with other regulatory and non-regulatory programs associated with agricultural operations" is simply an attempt to replicate other regional programs that have failed to protect water quality. The Central Valley Board has apparently forgotten the failures of the Management Agency Agreement with the Department of Pesticide Regulation (DPR), where after the five-year agreement had expired, DPR claimed it didn't have the authority to implement the measures it had agreed to.

The last four objectives simply provide Regional Board staff the rationale to avoid rigorously implementing what staff believes to be a politically unpalatable program that would meet the first objective of maintaining beneficial uses and meeting water quality standards. Consequently, staff dismisses individual edge-of-field monitoring because it would be expensive, *i.e.*, subject farmers to the same requirements applicable to every other segment of society that discharges pollutants to waters of the state. However, without individual discharger monitoring, the Board will never know the impacts of individual discharges or whether implemented management measures are effective.

104-71 cont'd

Direct Regional Board administration is rejected because it would require the Regional Board to candidly acknowledge the politically unpalatable need to assess additional fees to provide sufficient staff to regulate 30,000 plus farms spread over eight million acres. In 2002-05, Regional Board staff estimated that 40 to 70 staff would be needed to effectively implement the program. This seems to be a reasonable estimate based upon the stormwater program.

C. Staff's Recommended Alternative Continues The Existing Flaws Of The Existing Program.

1. The "recommended alternative" cannot identify sources of pollution, localized water quality impacts, the implementation of Best Management Practices (BMPs) or the effectiveness of BMPs.

The reality is that the regional monitoring approach embraced by staff has been woefully inadequate, as revealed by even a cursory review of coalition monitoring reports. What staff characterizes as cost efficiencies is simply insufficient monitoring that is incapable of characterizing all receiving waters, let alone identify specific sources or quantify the effectiveness of management measures. Coalition monitoring only represents a small percentage of irrigated acres. For example, review of recent monitoring reports submitted to the Regional Board by coalitions representing irrigated lands that discharge into the Sacramento-San Joaquin Delta estuary or waters tributary to the estuary shows that:

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The San Joaquin County and Delta Water Quality Coalition comprises approximately 609,134 acres of irrigated land. SJCDWQC Annual Monitoring Report

2010, p. 6. Between October 2008 and March 2009, the Coalition monitored 10 sites and six sites from April 2009 through December 2009. In addition, three sites were monitored for Management Plan monitoring. *Id.*, p. 1. The report observes, "...water quality is still not protective of beneficial uses across most of the Coalition." *Id.*, p. 4. Rough calculations reveal that irrigation season monitoring represented approximately one site for every 60,000 plus acres.

The East San Joaquin Water Quality Coalition comprises approximately 919,730 acres of irrigated land. ESJWQC Annual Monitoring Report 2010, p. 5. Between October 2008 and December 2009, the Coalition monitored 20 sites and eleven additional sites were monitored for Management Plan monitoring. *Id.*, p. 1. Fourteen sites were monitored during the 2009 irrigation season and 12 sites were monitored during the 2009 wet season. *Id.*, p. 23-24. The report observes, "...water quality is still not protective of beneficial uses across most of the Coalition." *Id.*, p. 4. Rough calculations reveal that irrigation season monitoring represented approximately one site for every 54,000 plus acres.

The Westside San Joaquin River Watershed Coalition comprises approximately 460,500 acres. Westside Coalition Semi-Annual Report, 15 June 2010, p. 3. The Coalition monitors 17 discharge sites during the irrigation and wet seasons. *Id.*, Table 3, p. 5. This represents approximately one site for every 27,000 acres.

The Sacramento Valley Water Quality Coalition comprises approximately 27,000 square miles and contains over a million acres of farms. SVWQC Annual Monitoring Report 2009, March 2010, p. 3. Apparently, the Coalition monitored 32 sites, of which 18 were sampled during the irrigation season. *Id.*, Table 5, Planned Annual Sampling Frequency, p. 19. This would represent irrigation season monitoring of one site for approximately every 55,000 acres.

Monitoring a downstream point draining thousands of acres accomplishes little other than long-term trend analysis. And trend analysis requires a program that consistently monitors the same set of constituents over many years. Most coalition sites are not monitored every year for the same parameters and, consequently, existing coalition monitoring programs are unreliable even for trend analysis. In any case, trend analysis of downstream monitoring points can never establish whether an individual upstream discharger is in compliance with water quality standards or implementing BPTC.

Staff has apparently forgotten that the 2003 waiver originally required coalitions to yearly monitor all major drainages, 20% of intermediate drainages on a yearly rotating basis and minor drainages where downstream problems are identified. Those requirements have been substantially relaxed and currently large areas of the Central Valley are not monitored and have never been monitored, despite identification of serious downstream water quality problems.

104-72 cont'd

Monitoring of actual discharge points is important because upstream waterways are disproportionally important as their increased energy inputs, higher invertebrate production, spawning, nursery and rearing habitat and lower discharge make these smaller aquatic systems vital to the overall health of the aquatic system. Larval fish and their food supplies found in these areas also are particularly vulnerable to adverse impacts of pesticides and other pollutants. Monitoring at the edge-of-field is crucial for evaluating the presence of BPTC and determining if recommended management practices are being implemented properly or if benefits from adopted practices are actually being realized.

104-72 cont'd

2. The "recommended alternative" cannot ensure that dischargers will demonstrate that they have implemented Best Practical Treatment and Control (BPTC) or prevent degradation of water quality.

The Staff Report states: "... the Regional Water Board still must require the discharger to demonstrate that the proposed manner of compliance constitutes BPTC (SWRCB Order No. WQ 2000-7)." Staff Report, p. 62. And that, "...implementation of the program must work to achieve site-specific antidegradation requirements through implementation of BPTC and representative monitoring to confirm the effectiveness of the BPTC measures in preventing or minimizing degradation. Any regulatory program adopted will rely on implementation of practices and treatment technologies that constitute BPTC, based to the extent possible on existing data, and require monitoring of water quality to ensure that the selected practices in fact constitute BPTC where degradation of high quality waters is or may be occurring." *Id.*, p. 69. However, staff's recommended alternative abandons any effort to implement staff's own admonition. *See supra*, Section C.2.

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3. The "recommended alternative" cannot ensure that the Regional Board can enforce program requirements.

As discussed above, any enforcement efforts by the Regional Board will be hampered by staff's recommendation. *See supra*, Section F.2. Staff's concept that enforcement will be vigorous by not having information available in the form of FWQMPs and individual monitoring data to assist in prioritizing inspections and enforcement cannot be rationalized. Without this information, staff's enforcement efforts will be as nominal as we have seen for the last seven years. Instead of enforcing water quality requirements, staff will be lead down a well-papered path of regional coalition monitoring – none of which will identify a single potential violator.

4. The "recommended alternative" is clearly inconsistent with the state's Non-Point Source Control Policy.

For the same reasons discussed above, staff's recommendation fails to comply with the NPS Policy. *See supra*, pp. Section F.2. Like the PEIR's first four alternatives

staff's recommendations falls well short of all five key elements required by the NPS Policy. /d

104-73 cont'd

6. The "recommended alternative" cannot be in the public interest.

Staff continues to treat irrigated agriculture as a privileged sector by allowing farmers to externalize adverse production impacts by transferring the costs of pollution from the polluter to the general public. The recommended alternative does not serve the interests of California's 35 million residents. It arguably does not even serve the interests of the discharger's it seeks to immunize from monitoring, reporting and permitting requirements applicable to everyone else.

Central Valley fisheries are experiencing catastrophic collapse. The team of federal and state scientists investigating the decline of fisheries has identified toxic pollutants as one of the three major suspected causes of the collapse of the Delta's pelagic fishery. This collapse has cost the recreational and commercial fishing communities tens upon tens of millions of dollars.

The degraded aquatic ecosystem in the Delta threatens the reliability of the delivery system that supplies water to 23 million Californians. Polluted waters have forced municipalities to spend hundreds of millions of dollars on increased wastewater and drinking water treatment. Degraded waters threaten public health and have diminished the aesthetic and recreational enjoyment of millions of individuals.

104-74

Central Valley agriculture is a relatively small part of the California community. According to the July 2010 (revised) employment data by the California Employment Development Department, total employment in the 34 Central Valley counties under the ILRP and analyzed in the PEIR's economic analysis is 3,509,620, of which farm labor comprises 237,000 or 6.758%. EDD, Employment by Industry Data at: http://www.labormarketinfo.edd.ca.gov/?pageid=166. Statewide, the agriculture production and processing industry directly accounts for approximately 4.3% of the state output, 3.8% of the jobs, 2.5% of labor income and 2.9% of value added in the state. The Measure of California Agriculture, 2006, Agricultural Issues Center, University of California, Chapter 5, Table 5.5, p. 10.

The PEIR's severely deficient economic analysis with its unrealistic assessment of the cost impacts of potential management measures, acknowledges that Alternative 5, despite being burdened with absurd administrative and monitoring requirements, would be of negligible cost to the overall economy. In fact the economic analysis predicts that, under Alternative 5: 1) jobs in the Central Valley would increase, 2) personal income and industrial output would increase in the Tulare Lake Basin, 3) personal income would only decrease by 0.013% in the Sacramento River Basin and by 0.019% in the San Joaquin River Basin and 4) industrial output would only decrease by 0.045% in the Sacramento River Basin and by 0.043% in the San Joaquin River Basin. And the economic analysis inexplicably failed to analyze the cost benefits of reduced pollution. Had the advantages of better water quality been evaluated, implementation of

Alternative 5 would be shown to result in significant economic benefit across the spectrum for the entire Central Valley.

The recommended alternative will not reduce agricultural pollution any time in the near future. Nothing in the recommended alternative precludes agricultural dischargers from continuing the historic trend to discharging wastes into the foreseeable future. At its core, the recommended alternative will perpetuate substantial discharges of wastes from thousands of farms to impaired waters throughout the Central Valley, causing irreversible and substantial harm to degraded and stressed ecosystems, threatening public health and imposing increased costs to millions of Californians.

104-74 cont'd

It cannot be in the public interest to exempt one small segment of the California economy from regulatory requirements applicable to everyone else. It clearly cannot be in the public interest, as the recommended alternative does, to exempt farmers from having to monitor their discharges in order to establish compliance with water quality standards and BPTC requirements.

6. **CSPA agrees ILRP must restrict groundwater pollution but unfortunately staff's proposed reliance upon regional efforts is unlikely to be more successful than existing programs that have chaperoned groundwater degradation.**

Groundwater pollution is a serious problem and relying upon regional efforts is unlikely to address site-specific sources of groundwater pollution. The staff alternative of requiring farmers to participate in a regional groundwater program once every five years ignores the obvious protective step of requiring individual farms to monitor their own wells to evaluate groundwater pollution. The staff recommendation also contains no specific measures to identify and prevent contamination of groundwater from management measures implemented to prevent surface water pollution.

104-75

The California Department of Water Resources (DWR) has concluded that water from California's groundwater basins "has been the most important single resource contributing to the present development of the state's economy." Between 25% and 40% of California's water supply comes from groundwater. That figure can rise to as much as two-thirds during critically dry years. Fifty percent of California's population depends upon groundwater for all or part of their drinking water. Data from the waterboards, USGS, Department of Health, DPR and others, demonstrate that groundwater has been severely degraded. DWR has stated that three-fourths of the impaired groundwater in California was contaminated by salts, pesticides, and nitrates, primarily from agricultural practices. Thousands of public drinking water wells have been closed because of pollution. Many of California's more than 71,000 agricultural irrigation wells are degraded or polluted. USGS data collected over a ten-year period in Fresno County showed that some 70% of the wells sampled exceeded the secondary MCL and agricultural goal for total dissolved solids. Kings County was even worse, with 87% exceeding criteria. Even the State Board's own data indicates that more than one third of the areal extent of groundwater assessed in California is so polluted that it

cannot fully support at least one of its intended uses, and at least 40 percent is either impaired by pollution or threatened with impairment.

For example, a study conducted by the United States Geological Survey documented extensive contamination of groundwater by pesticides applied to rice fields. Dawson, B., USGS, "Shallow Ground-Water Quality Beneath Rice Areas in the Sacramento Valley, California 1997" (2001). Pursuant to an existing Basin Plan prohibition, rice growers are required to hold their irrigation waters for up to 30 days in order to facilitate the breakdown of toxic pesticides. Rice fields are typically flooded from April to September with some significant portion also flooded during winter months to help break down leftover straw. Detections of pesticides and nitrites in groundwater beneath rice fields were attributed to pesticide and fertilizer applications to the fields. The study explains that holding irrigation waters on the fields in order to protect surface water may be allowing more recharge containing the pesticides molinate and thiobencarb to reach shallow groundwater. Another study in the record documents routing of pesticide-contaminated surface runoff from orchards into drainage wells that drain the contaminated runoff into groundwater. Troiano, J, et al., Cal. Dept. of Pesticide Regulation, "Movement of Simazine in Runoff water from Citrus Orchard Row Middles as Affected by Mechanical Incorporation" (1998) ("evidence linked contamination [of groundwater] to movement of [pesticide] residues in orchard runoff water that was directed into drainage wells"). *See also* Ingalls, Charles A., U.C. Davis, pp. 5-10, "Movement of Chemicals to Groundwater," of "Protecting Groundwater Quality in Citrus Production" (1994)).

104-75 cont'd

The USGS study and other studies show that one potential negative environmental impact of a management measure that stores polluted water as a means of protecting surface water quality is an acceleration of the pollutants discharged into groundwater through recharge or existing pathways such as wells. Nevertheless, staff's proposed alternative relying upon regional monitoring efforts is unlikely to identify impacts from implementation of management measures and specific monitoring requirements must be included to prevent redirected impacts of management measures employed to protect surface waters.

VI. CONCLUSION.

After seven years of the irrigated lands program, the Central Valley Regional Water Quality Control Board still does not know who is actually discharging pollutants, the points of discharge, the constituents discharged, receiving water impacts, whether management measures (or BMPs) have been implemented or if those BMPs have been effective in reducing pollutant discharges. The Board cannot enforce against recalcitrant dischargers because it cannot know who they are and dischargers have little incentive to comply because they know that monitoring far downstream cannot produce the evidence to hold them accountable. The PEIR continues the theme of not providing the Regional Board the necessary information to make a decision that will protect water quality and human health. Staff proposes an alternative that perpetuates the existing program's flaws, including basic compliance with the NPS Policy and Resolution No. 68-

16. On the other hand, CSPA's alternative sets forth a reasonable program that would comply with statutory requirements, protect water quality and, where it is consistent with those two goals, reduce the potential burden on the farming community. CSPA respectfully requests that the Regional Board instruct staff to redraft their recommended program, send the PEIR back to be supplemented with necessary elements and include detailed analysis of an improved staff recommendation, CSPA's recommendation, and other required elements. We appreciate staff's and the Regional Board's consideration of these comments.

Sincerely,

Michael R. Lozeau
Lozeau Drury LLP

Bill Jennings
California Sportfishing Protection Alliance

Encls.

An Economic Review of the Draft Irrigated Lands Regulatory Program Environmental Impact Report

September 27, 2010

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I. INTRODUCTION

The Central Valley Water Board (Board) authorized the preparation of an Environmental Impact Report for the Irrigated Lands Regulatory Program (ILRP). The ILRP regulates water discharges from irrigated agricultural lands. ILRP goals include preventing agricultural discharges from impairing receiving waters. At the Board's direction, consultants prepared the *Draft Irrigated Lands Regulatory Program Environmental Impact Report (Draft EIR)*. Appendix A to the *Draft EIR* is the *Draft Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (Technical Memo)*.

Michael Lozeau of Lozeau Drury LLP, contracted with ECONorthwest (ECONW) to review and provide preliminary comments on the *Technical Memo*. Specifically, he asked that we review the economic analysis described in the *Technical Memo*, including the analytical approach, simplifying assumptions, data, analyses and conclusions, to determine if it provides reliable information on which the Board can base decisions regarding the alternatives described in the *Draft EIR*. In this report we describe our preliminary findings to date. If we are asked to review additional information, or address additional topics, we may revise our critique and findings.

II. OVERVIEW OF RESULTS

The following discussion substantiates our conclusion that the *Technical Memo* developed in support of the *Draft EIR* has serious errors of omission and commission that violate the generally accepted standards of practice that apply to this type of economic analysis. Because of these errors, the report does not provide a reliable basis for understanding the full potential economic consequences of each the five alternatives the *Draft EIR* considers. It also does not fully depict the differences in potential economic consequences among the five alternatives. The various errors are interrelated but, to facilitate our discussion of them, we separate them into these six categories:

A. **The Analytical Objectives and Approach**: The study's analytical objectives and approach do not follow generally accepted guidelines. The analysts ignored standards and procedures developed by the California Department of Water Resources specifically for this type of economic analysis. The resulting analysis is flawed and incomplete, and, hence, it provides decision-makers and stakeholders with biased and unreliable descriptions of the economic outcomes likely to materialize if the Board were to implement any of the alternatives in the *Draft EIR*.

B. **Baseline**: The economic analysis described in the *Technical Memo* does not compare the alternatives against an appropriate baseline that describes potential future conditions absent implementation of each alternative. Hence, it provides an incomplete, biased representation of the alternatives' economic consequences.

E. **Management Practices**: The management practices considered in the *Draft EIR* and *Technical Memo* do not reflect the full range of options available to irrigators. They particularly exclude low-cost, high-benefit options. Hence, the *Draft EIR* and *Technical Memo* provide an incomplete and biased representation of the choices that realistically are available to irrigators or the Control Board.

F. **Costs and Benefits**: The analysis described in the *Technical Memo* incorrectly calculates the costs of adopting practices that improve water quality. The analysis also overlooks major categories of economic costs and benefits that would be affected by the alternatives. Hence, it provides an incomplete, biased representation of the alternatives' economic costs.

G. **Risk and Uncertainty**: The *Technical Memo* provides no information on how each of the five alternatives would affect the risks and uncertainty facing irrigators and others. Economic analyses of the scale and scope described in the *Technical Memo* typically include analyses of risk and uncertainty as a matter of course. The analysts' failure to comply with this generally accepted standard of practice gives decision-makers and stakeholders incomplete descriptions of the economic significance of the alternatives' outcomes.

H. **Regional Impacts**: The *Technical Memo* provides a biased and incomplete description of the regional impacts of the alternatives. The conclusions in this section emphasize negative outcomes and ignore the analytical assumptions that overstate costs and the resulting negative outcomes.

We describe each category in the following sections.

III. Analytical Objectives and Approach

The study's analytical objectives and approach do not follow generally accepted guidelines. In particular, the analysts ignored standards and procedures developed by the California Department of Water Resources specifically for this type of economic study. The resulting analysis is flawed and incomplete, and provides decision-makers and stakeholders with biased and unreliable descriptions of the economic outcomes likely to materialize if the Board were to implement any of the five alternatives in the *Draft EIR*. 104-76

The *Technical Memo* gives this description of its analytical objectives and approach: 104-77

> "The analysis of economic (and fiscal) effects for the long-term Irrigated Lands Regulatory Program (ILRP) focuses on addressing the following three analytical questions.
>
> - "How much currently is being spent annually by growers, landowners, and administering entities in the Central Valley on compliance with the ILRP pollution control implementation program?

- "What are the expected additional costs, both to growers and administering entities, of compliance with the long-term ILRP alternatives?
- "How is imposition of these additional costs expected to affect the economic viability of farming in the Central Valley? (*Technical Memo* p. 1-1)

By focusing on just these three questions, the study's authors restrict their analysis to a subset of the economic issues the Board must consider to satisfy its obligations. Hence, the *Technical Memo* cannot provide an adequate basis for the Board's consideration of these issues. The Board's responsibilities extend well beyond the narrow set of costs described in the *Technical Memo*. For example, the Board's website describes its mission as, "To preserve, enhance, and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations."[1] [emphasis added] The Board can assess the extent to which the *Draft EIR*'s alternatives promote efficient water use only if it weighs all of their relevant economic costs and benefits, not just those that are the focus of the *Technical Memo*.

104-77 cont'd

The Board's website also lists the strategic goals for California's nine water boards, including the Central Valley Board. These goals include:

- "Goal 1 - The Boards' organizations are effective, innovative and responsive."
- "Goal 2 - Surface waters are safe for drinking, fishing, swimming, and support healthy ecosystems and other beneficial uses."
- "Goal 3 - Groundwater is safe for drinking and other beneficial uses."
- "Goal 6 – Water quality is comprehensively measured to evaluate protection and restoration efforts."[2]

From an economic perspective, the analysis described in the *Technical Memo* is neither effective nor innovative given the study's limited and incomplete focus relative to the generally accepted guidelines for these types of economic analyses. We describe these guidelines below. For example, the study ignores the economic benefits of the *Draft EIR*'s alternatives on drinking water, fishing, swimming, ecosystems and other beneficial uses. A comprehensive assessment of the changes in water quality brought about by the *Draft EIR* alternatives would include these and other relevant costs and benefits.

104-78

[1] California Water Boards web site: [illegible] accessed September 22, 2010.

[2] California Water Boards web site: [illegible] accessed September 22, 2010.

Specific to the study at issue, the *Existing Conditions Report (Existing Conditions)* referenced throughout the *Technical Memo*, describes the regulatory setting for the economic analysis and notes the purpose of water quality regulations in California:

> "Water quality regulation and permitting processes are designed to limit the discharge of pollutants to the environment in an effort to achieve the highest surface water and groundwater quality, protect fish and wildlife and their habitats, and protect other beneficial uses (e.g., domestic and agricultural water supply and recreational resources)." (*Existing Conditions* p. 2-1)

The study's analytical approach focuses on a narrow subset of the full range of potential economic outcomes of the *Draft EIR*'s alternatives, and, hence, provides limited and biased information regarding the proposed regulations' overall economic costs and benefits. Board members and others interested in furthering the Board's goals will find little useful information in the economic analysis described in the *Technical Memo*. This study does not serve these groups well.

Those interested in an unbiased and comprehensive assessment of the economic outcomes of adopting the *Draft EIR* alternatives will find the study's deficiencies especially troubling, given the fact that the study area includes a large part of California. It also includes the majority of the state's irrigated land. The study leaves uncounted many of the economic costs and benefits that would occur throughout much of the state with the adoption of the *Draft EIR* alternatives. The *Existing Conditions* describes the geographic extent of the Board's responsibilities:

> "The jurisdiction of the California Regional Water Quality Control Board, Central Valley Region ... extends from the Oregon border to the northern tip of Los Angeles County and includes all or part of 58 of the State's 58 counties. ... The three basins [major watersheds included in the study area] cover about 40% of the total area of the State and approximately 75% of the irrigated acreage [citation omitted]." (*Existing Conditions*, page ES-1)

An economic study of this magnitude should conform to generally accepted analytical guidelines. Many such guidelines apply here.[1] The California Department of Water Resources' *Economic Analysis Guidebook* (*Guidebook*) is particularly relevant, given the study area and topic. The *Guidebook* notes:

> "... the Department of Water Resources (DWR) has a policy that all economic analyses conducted for its internal use on programs and projects be fundamentally consistent with the federal *Economic and Environmental*

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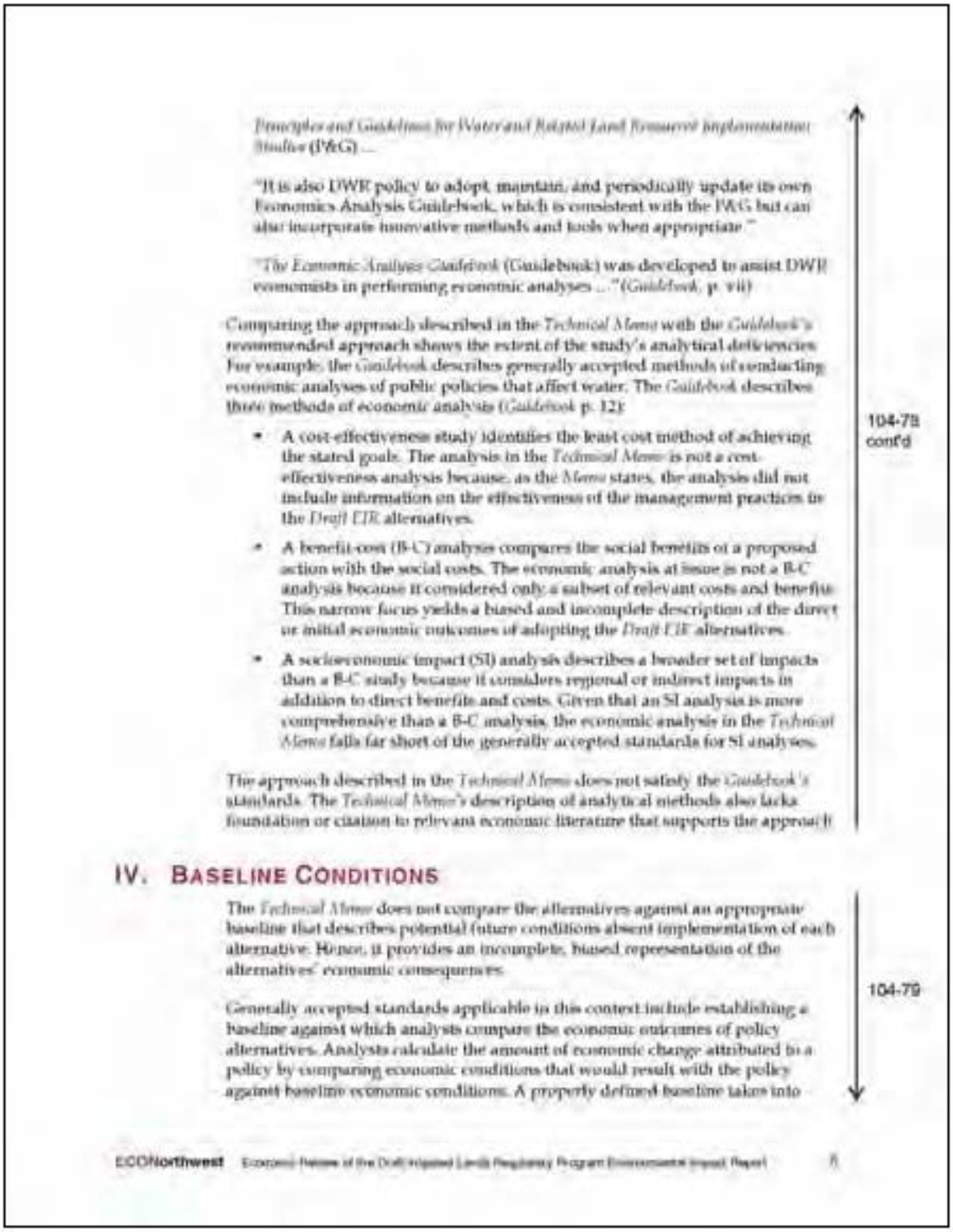
[1] Examples include: California Department of Water Resources. 2008. *Economic Analysis Guidebook*. January. U.S. Army Corps of Engineers. 1983. *Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies*. March—and 2009 Draft Update; U.S. Environmental Protection Agency. 200. *Guidance for Preparing Economic Analyses*. EPA 240-R-00-003. September.



Principles and Guidelines for Water and Related Land Resources Implementation Studies (P&G) ...

"It is also DWR policy to adopt, maintain, and periodically update its own Economics Analysis Guidebook, which is consistent with the P&G but can also incorporate innovative methods and tools when appropriate."

"The *Economic Analysis Guidebook* (Guidebook) was developed to assist DWR economists in performing economic analyses ..." (*Guidebook*, p. vii)

Comparing the approach described in the *Technical Memo* with the *Guidebook*'s recommended approach shows the extent of the study's analytical deficiencies. For example, the *Guidebook* describes generally accepted methods of conducting economic analyses of public policies that affect water. The *Guidebook* describes three methods of economic analysis (*Guidebook* p. 12):

- A cost-effectiveness study identifies the least cost method of achieving the stated goals. The analysis in the *Technical Memo* is not a cost-effectiveness analysis because, as the *Memo* states, the analysis did not include information on the effectiveness of the management practices in the *Draft EIR* alternatives.
- A benefit-cost (B-C) analysis compares the social benefits of a proposed action with the social costs. The economic analysis at issue is not a B-C analysis because it considered only a subset of relevant costs and benefits. This narrow focus yields a biased and incomplete description of the direct or initial economic outcomes of adopting the *Draft EIR* alternatives.
- A socioeconomic impact (SI) analysis describes a broader set of impacts than a B-C study because it considers regional or indirect impacts in addition to direct benefits and costs. Given that an SI analysis is more comprehensive than a B-C analysis, the economic analysis in the *Technical Memo* falls far short of the generally accepted standards for SI analyses.

The approach described in the *Technical Memo* does not satisfy the *Guidebook*'s standards. The *Technical Memo*'s description of analytical methods also lacks foundation or citation to relevant economic literature that supports the approach.

104-78 cont'd

IV. Baseline Conditions

The *Technical Memo* does not compare the alternatives against an appropriate baseline that describes potential future conditions absent implementation of each alternative. Hence, it provides an incomplete, biased representation of the alternatives' economic consequences.

Generally accepted standards applicable in this context include establishing a baseline against which analysts compare the economic outcomes of policy alternatives. Analysts calculate the amount of economic change attributed to a policy by comparing economic conditions that would result with the policy against baseline economic conditions. A properly defined baseline takes into

104-79

account economic changes that will occur for reasons other than the policy alternative. Analyses that lack a baseline, or use an improperly defined baseline, yield biased results because costs or benefits that would have otherwise occurred are mistakenly attributed to the policy alternative. The *Guidebook* describes the importance of establishing a baseline using a *with* and *without* analytical approach:

> "The objective of economic analysis is to determine if a project represents the best use of resources over the analysis period. ...
>
> The test of economic feasibility is passed if the total benefits that result from the project exceed those which would accrue without the project by an amount in excess of the project costs. It is important that the comparison be *with* and *without* rather than *before* and *after* because many of the after effects may even occur without the project and can thus not properly be used in project justification. ..." (*Guidebook* p. 5)

104-79

The *Technical Memo* lacks a clear and concise description of baseline conditions. The available information indicates that analysts did not control for factors other than the *Draft EIR*'s alternatives that can affect irrigators' costs of managing water quality. For example, the analysis incorrectly attributes costs of management practices previously implemented to the future costs of adopting the *Draft EIR*'s alternatives. This overstates the costs of adoption.

> "Although Alternative 1 represents the continued implementation of current Central Valley Water Board policies, limited information was available to determine the extent of management practice implementation to date. Further, the existing conditions information used as a baseline for analysis dates from the early 2000s. As a result, changes from Alternative 1 relative to existing conditions do not capture implementation that has already occurred at the time of this report, and thus likely overstate the impacts of further implementation of Alternative 1." (*Technical Memo* p. 1-2)

104-80

The analysis also incorrectly attributes adoption costs to the *Draft EIR*'s alternatives in cases where growers adopt management practices for reasons other than the alternatives. The authors recognize the importance of accounting for costs attributable to other factors:

> "Existing conditions corresponds to the level of water quality management practices that are in the baseline. It is acknowledged that most practices are not implemented to improve water quality but rather to provide for another agronomic or economic need. ... Therefore adjustments were made to best capture costs attributable only to improvements in water quality. ..." (*Technical Memo* p. 2-2)

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Here they describe the adjustment:

> "Potential cost savings or other benefits from the irrigation system changes also were considered. These included estimates of savings in grower's costs for water, fertilizer, and labor and revenue increases resulting from improved crop yield and quality. These benefits were subtracted from the implementation cost of the irrigation system or management changes, so the analysis considered only the net cost to growers of implementing a change." (*Technical Memo* p. 3-1)

This "adjustment," however, ignores the fact that the management practices at issue were adopted for reasons *other than* the *Draft EIR* alternatives. Such changes belong in the baseline conditions and not the *Draft EIR* alternatives. The authors provide no citations to economic literature or other relevant sources that support such an adjustment. The resulting adjusted costs overstate the true costs of the alternatives.

Our critique of the *Technical Memo's* treatment of the alternatives' costs (see below) notes that the analysis selected some of the most expensive management alternatives available. Assuming for the sake of argument that we agree with the described adjustment – which we do not – using more realistic adoption costs would yield lower or negative "net" costs of adopting the practices in the *Draft EIR* alternatives.

104-80 cont'd

Had the analysts used a *with* vs. *without* analytical approach they could have isolated the extent to which irrigators adopt management practices that have water-quality impacts, but were adopted for other reasons. For example, they may change irrigation practices from flood to drip or sprinkler systems not to improve water quality but to reduce their fertilizer and pesticide costs. The analysts acknowledge the likelihood that irrigators make such changes for purposes other than to accomplish the Board's water-quality goals. But they then do not account for these changes in a manner that yields an accurate, unbiased representation of the costs of the alternatives being considered by the Board.

A similar conclusion applies to the *Technical Memo's* treatment of various laws that affect irrigators' behavior. Chapter 2 of the *Existing Conditions* report, for example, notes that the Federal Endangered Species Act (ESA) could affect future irrigation practices. The *Technical Memo*, however, makes no provision for the potential impacts of the ESA or other laws and regulations on irrigation methods and costs. Instead, it attributes all future irrigation changes and costs to the *Draft EIR* alternatives. A *with* vs. *without* analytical approach would acknowledge that regulations other than the *Draft EIR* alternatives can influence irrigators' practices and costs in the future.

V. Management Practices

The management practices considered in the *Draft EIR* and *Technical Memo* do not reflect the full range of options available to irrigators. Instead, they consider seven practices that emphasize high-cost options and exclude low-cost, high-

104-81

benefit options. Hence, the *Draft EIR* and *Technical Memo* provide an incomplete and biased representation of the choices that realistically are available to irrigators and the Control Board.

The *Technical Memo* identifies the management practices in the analysis but provides no justification for how the analysts selected these practices.

> "Although a wide variety of management practices could be used to reduce impacts on water quality, this suite [the seven practices selected and listed in Table 2-1] of management practices is deemed sufficient from a programmatic point of view to encompass all flow path and management needs that must be addressed to reduce impacts on water quality." (*Technical Memo* p. 2-2)

The *Technical Memo* provides no assessment of how these practices were "deemed sufficient" for the analysis. More fundamentally, the authors provide no discussion of selection criteria they applied to reach their conclusion. Without this information, the Board, other decision-makers and stakeholders cannot assess the appropriateness of the selected practices. This is especially important given that, as we describe in our critique of adoption costs, the selected practices are some of the most expensive available.

As described in the *Existing Conditions* report, over 100 practices exist with proven potential to improve water quality.

104-81 cont'd

> "This section provides a summary of the management and hardware actions that have been proven to provide a water quality benefit. ... The single most comprehensive reference for individual management practices is the NRCS [citation omitted]. This website lists over 100 proven practices that provide information for physical actions that apply to several of the management measure categories. Although the NRCS guides were developed for general use, they contain sufficient guidance for local implementation." (*Existing Conditions* p. 3-5)

Without information on the "deemed sufficient" selection criteria, the choice of management practices appears arbitrary, and lacks analytical rigor.

The *Technical Memo* also provides no information on the effectiveness of the management practices in the analysis:

> "Management practices were assumed to be 100 percent effective." (*Technical Memo* p. 2-1)

Assuming complete effectiveness strays outside the bounds of rational expectations. The analysts make this assumption without support or citation to relevant studies. The assumption thus appears arbitrary and devoid of analytical veracity.

Given these considerations, the standard analytical approach applicable to the *Draft EIR* and *Technical Memo* would entail describing the full range of options before the Board and their respective consequences. The *Draft EIR* and *Technical Memo* exhibit neither of these characteristics. Consequently, they do not (and cannot) provide a reliable basis for the Board to make decisions that will satisfy its obligations to "preserve, enhance, and restore the quality of California's water resources and ensure their proper allocation and efficient use for the benefit of present and future generations".[1]

104-81 cont'd

VI. Costs

The *Technical Memo* incorrectly calculates the costs associated with irrigators adopting practices that reduce their impacts on water quality. The analysis also overlooks major categories of economic costs and benefits that the *Draft EIR* alternatives would affect. Hence, it provides an incomplete, biased representation of the alternatives' overall economic costs.

The *Technical Memo* describes that the management practices in the *Draft EIR* alternatives are "relatively expensive." The report provides no information about the criteria the authors used to reach this judgment, no evaluation of the extent to which the projects included in the *Draft EIR* are more expensive than those excluded from it, and no justification for why those who constructed the alternatives selected the more expensive projects. The inclusion of more expensive projects and exclusion of less expensive ones has an important impact on the economic analysis and biases its conclusions, insofar as the large majority of the acres in the study produce field, forage, grain, and other crops whose value is lower than crops in other categories. By selecting more expensive projects, the analysis also increases the number of acres that growers take out of production as operating costs increase.

104-82

> "Some key analytical assumptions and data limitation contributed to the relatively large estimated change in acreage.
>
> "More importantly, management practices assumed to be implemented for the analysis are relatively expensive, especially for lower-revenue crops. ... As a result, crops such as irrigated pasture, hay, and some small grains would have difficulty supporting such costs. The analysis indicated large reductions in their acreages in the regions where those costs were incurred."
>
> "Irrigated pasture, hay, and other field crops ... accounted for more than 95 percent of the acreage reductions shown in Table 3-7. To the extent growers of these crops could identify less-expensive ways to comply, such as avoiding

[illegible] accessed September 22, 2010.

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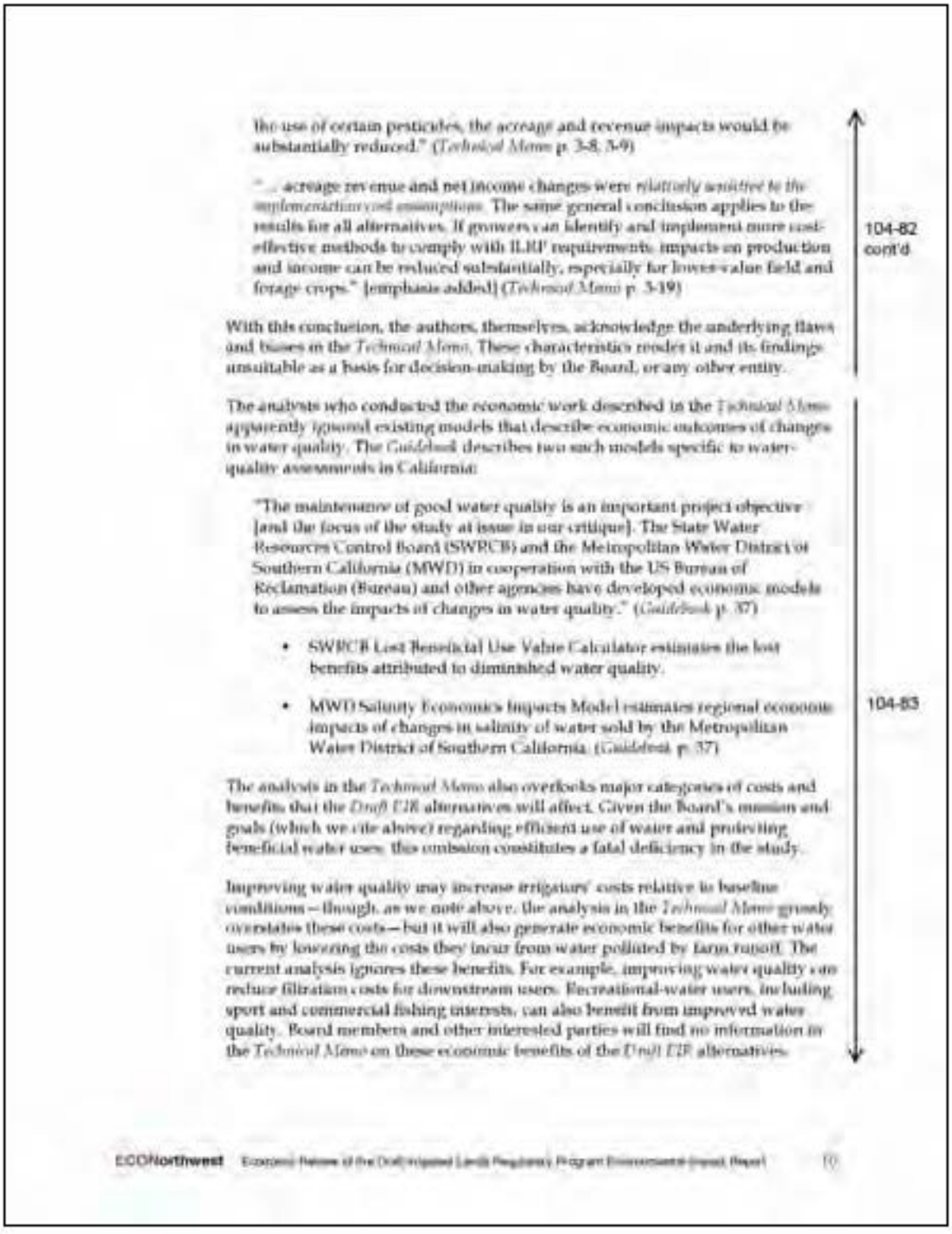

the use of certain pesticides, the acreage and revenue impacts would be substantially reduced." (*Technical Memo* p. 3-8, 3-9)

"... acreage revenue and net income changes were *relatively sensitive to the implementation cost assumptions*. The same general conclusion applies to the results for all alternatives. If growers can identify and implement more cost-effective methods to comply with ILRP requirements, impacts on production and income can be reduced substantially, especially for lower-value field and forage crops." [emphasis added] (*Technical Memo* p. 3-19)

104-82 cont'd

With this conclusion, the authors, themselves, acknowledge the underlying flaws and biases in the *Technical Memo*. These characteristics render it and its findings unsuitable as a basis for decision-making by the Board, or any other entity.

The analysts who conducted the economic work described in the *Technical Memo* apparently ignored existing models that describe economic outcomes of changes in water quality. The *Guidebook* describes two such models specific to water-quality assessments in California:

"The maintenance of good water quality is an important project objective [and the focus of the study at issue in our critique]. The State Water Resources Control Board (SWRCB) and the Metropolitan Water District of Southern California (MWD) in cooperation with the US Bureau of Reclamation (Bureau) and other agencies have developed economic models to assess the impacts of changes in water quality." (*Guidebook* p. 37)

- SWRCB Lost Beneficial Use Value Calculator estimates the lost benefits attributed to diminished water quality.
- MWD Salinity Economics Impacts Model estimates regional economic impacts of changes in salinity of water sold by the Metropolitan Water District of Southern California. (*Guidebook* p. 37)

104-83

The analysis in the *Technical Memo* also overlooks major categories of costs and benefits that the *Draft EIR* alternatives will affect. Given the Board's mission and goals (which we cite above) regarding efficient use of water and protecting beneficial water uses, this omission constitutes a fatal deficiency in the study.

Improving water quality may increase irrigators' costs relative to baseline conditions – though, as we note above, the analysis in the *Technical Memo* greatly overstates these costs – but it will also generate economic benefits for other water users by lowering the costs they incur from water polluted by farm runoff. The current analysis ignores these benefits. For example, improving water quality can reduce filtration costs for downstream users. Recreational-water users, including sport and commercial fishing interests, can also benefit from improved water quality. Board members and other interested parties will find no information in the *Technical Memo* on these economic benefits of the *Draft EIR* alternatives.

Readers can look no further than the Central Valley Region's own Water Quality Control Plan (Plan) for information on the significance of beneficial water uses. Chapter II of the Plan describes these uses.

> "Beneficial uses are critical to water quality management in California. State law defines beneficial uses of California's waters that may be protected against quality degradation to include (and not be limited to) '... domestic; municipal; agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources of preserves' [citation omitted]. Protection and enhancement of existing and potential beneficial uses are primary goals of water quality planning."[1]

The *Technical Memo* provides a biased and incomplete assessment of the economic outcomes of adopting any of the *Draft EIR* alternatives. This is especially true regarding the economic benefits of the alternatives. Consideration of these benefits is essential, given the "primary goal" of water quality planning, as described by the Central Valley Region. Because of these flaws, Board members cannot not rely on the analysis and conclusions in the *Technical Memo* for a balanced, comprehensive, or informed assessment of the relevant economic outcomes of the *Draft EIR* alternatives.

104-53 cont'd

VII. Risk and Uncertainty

The *Technical Memo* provides no information on how each of the five alternatives would affect the risks and uncertainty facing irrigators and others. Economic analyses of the scale and scope described in the *Technical Memo* typically include analyses of risk and uncertainty as a matter of course. The analysis' failure to comply with this generally accepted standard of practice gives decision-makers and stakeholders incomplete descriptions of the economic significance of the alternatives' outcomes.

The *Guidebook* describes the importance of accounting for risk and uncertainty in economic analyses of policies that affect water management:

> "Although it is impossible to account for all sorts of uncertainty and risk in a planning study, there are techniques that can be used to acknowledge their existence and to assign some quantitative importance to them in the analysis. These techniques include ..." (*Guidebook*, p. A-17)

The economic analysis described in the *Technical Memo* violates generally accepted standard by not assessing how the *Draft EIR* alternatives affect the risks and uncertainty that irrigators and other water users face.

104-54

[1] California Regional Water Quality Control Board Central Valley Region. 2009. The Water Quality Control Plan (Fourth Plan) for the California Regional Water Quality Control Board Central Valley Region. Fourth edition. Page II-1.00.

VIII. Regional Impacts

The *Technical Memo* provides a biased and incomplete description of the regional impacts of the alternatives. The conclusions in this section emphasize negative outcomes and ignore the analytical assumptions that overstate costs and the resulting negative outcomes.

104-85

In spite of the fact that the analysis described in the *Technical Memo* overestimates the costs of adopting the alternatives in the ILRP, Alternatives 3, 4, and 5 yield *net positive* impacts on employment and personal income. According to the *Technical Memo*, total personal income and total regional employment would *increase* with the adoption of Alternatives 3, 4, or 5. (*Technical Memo* p. 4-35)

The Conclusions subsection of the Regional Impacts portion of the *Technical Memo* describes reasons why the analysis likely underestimated the net adverse effects of the alternatives, which overstates the positive impacts on employment and personal income. A more balanced summary of this portion of the analysis would also comment on the reasons why the analysis likely overstates—perhaps significantly—the estimated costs of the alternatives.

104-86

The analysts present their IMPLAN assessment of regional impacts without disclosing the limitations of these types of multiplier models, or the implications of these limitation for their conclusions. For example, IMPLAN and other input-output models assume a static economy, or an economy that cannot respond to economic forces and trends, e.g., increasing market pressure to improve irrigation efficiency by switching from flood to sprinkler irrigation. In this example, the IMPLAN limitation compound the deficiencies associated with the study's baseline, which we describe above.

104-87

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September 27, 2010

Mr. Michael Lozeau
Lozeau | Drury LLP
1516 Oak Street
Alameda, California 94501

Subject: Comments on the Draft Program Environmental Impact Report for the Long-term Irrigated Lands Regulatory Program

Dear Mr. Lozeau:

I have reviewed the "Draft Program Environmental Impact Report (PEIR) for the Long-term Irrigated Lands Regulatory Program (ILRP) within the Central Valley Region" ("PEIR") (July 28, 2010). I have also reviewed the "Irrigated Lands Regulatory Program Long-Term Program Development Staff Report (July 2010) and the "Draft Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program" (July 2010). I have prepared comments on the PEIR that address proposed surface water and groundwater monitoring and management practices.

1. The Alternatives are not Adequately Evaluated

The PEIR does not evaluate the relative effectiveness of the five alternatives in the control of contaminated discharges from agricultural operations in the Central Valley. Furthermore, the PEIR provides no quantitative analysis of the amount of contaminant loading to surface water and groundwater that would result from implementation of the alternatives. These are fundamental flaws of the PEIR that leave the reader with no basis to judge the merits and shortcomings of the alternatives. Because contaminant loads are not quantified, the cumulative impact to water quality cannot be predicted, as discussed in Comment (2) below. Finally, the PEIR fails to provide a basis to determine best practicable control or technology (BPTC) as required by Resolution No. 68-16 (Oct. 28, 1968).

104-68

Our brief qualitative analysis of the alternatives is as follows:

Alternative 1, because it is the status quo would fail to reduce contaminant loads and improve water quality and, because it relies on regional or watershed scale monitoring, would not allow for a determination of BPTC. To determine BPTC, monitoring and data comparison is necessary upgradient and downgradient of points of control, i.e., where measures are implemented in the field. Because of the reliance on current management practices and because only regional monitoring is to be used, Alternative 1would not result in measureable improvement to water quality and in fact foster further degradation of water quality.

104-89

Alternative 2, which includes some groundwater management practices, would not demonstrably reduce contaminant loads and improve water quality. The groundwater management practices include only token wellhead protection measures involve only the placement of dirt in berms adjacent to the wellhead to prevent movement of surface water to the wellhead. These minor improvements are already required under Title 3, California Code of Regulations Division 6 (effective May 27, 2004) for areas where pesticides are mixed, rinsed and stored (http://www.cdpr.ca.gov/docs/emon/grndwtr/guidance/gw0702.pdf). Implementation of these measures more broadly, i.e., at all farms, is not likely to result in significant water quality gains because the berms would only marginally protect against pesticide and nitrate transport in stormwater in the areas where wellheads are located and would not address subsurface transport of pesticides and nitrates.

104-90

No farm-scale monitoring requirements are included under Alternative 2 and therefore, a determination of BPTC is not possible. Because only token wellhead protection measures are to be undertaken, Alternative 2, like Alternative 1, would not result in measureable water quality improvements and may be just as likely to result in water quality degradation.

Alternative 3 requires farm plans that use a tiered approach to address water quality concerns. This alternative is an improvement and may result in some gains in water quality; however, because no surface water or groundwater monitoring is required, the implementation of this alternative would not result in measureable improvement to water quality and the lack of monitoring does not allow for BPTC determinations.

104-91

Alternative 4 provides for nutrient management and regional or individual monitoring under a tiered hierarchy. Whereas use of tiering is acceptable in determining the intensity of monitoring, the option to participate in regional scale monitoring would not allow for the determination of BMP effectiveness nor BPTC. Costs under Alternative 4 could also be reduced by incorporating groundwater quality information from public water supply systems into a database to compliment the data obtained from Tier 2 and Tier 3 farms that would be required to participate in regional groundwater monitoring. As with Alternative 3, Alternative 4 may provide some gains in water quality; however, those gains would not be measurable because only regional monitoring is required.

104-92

Alternative 5 requires surface water and groundwater monitoring at individual farms and would likely be most protective of water quality. Because discharger-scale monitoring

104-93

would be required, BMP effectiveness could be evaluated and a determination of BPTC could be made. As monitoring data from BMPs are evaluated, BPTC can be determined and deployed in the field.

The monitoring under this alternative, however, is duplicitous and overly burdensome. Instead, use of a tiering scheme (i.e., to reduce monitoring at low risk farms in low risk environments) would reduce costs as would better coordination between farms in fulfilling monitoring requirements. For example, if groundwater wells were to be installed, groundwater monitoring at neighboring farms could be coordinated with one farm's downgradient well serving as the adjacent farm's upgradient location. Alternative 5, while inefficient, would result in the greatest potential for water quality gains because of the monitoring that would be required at farms.

104-93 cont'd

To properly evaluate the five alternatives, a quantitative estimate of the contaminant loads to surface water and groundwater needs to be integrated into Chapter 3 of the PEIR, Program Description. Additionally, consideration of each alternative's capability to meet BPTC needs to be incorporated into Chapter 3, including specification of monitoring at a scale that allows for the determination of BPTC.

104-94

2. Cumulative Impacts on Downstream Ecologic Receptors are not Assessed

The PEIR fails to consider cumulative impacts of the alternatives on ecologic receptors downstream of the agricultural discharges in the Central Valley, namely the Delta and the San Francisco Bay and Estuary. Wildlife in the Delta and the Bay at risk include, for example, special-status fish species such as the Delta Smelt and anadromous fish such as Chinook Salmon and Steelhead Trout. Clearly, contaminant loading of pesticides and nutrients to upstream waters impacts habitat for these fish and their prey yet no consideration of these or any individual species is given in Section 6, Cumulative and Growth-Inducing Impacts. The PEIR states only in Chapter 6:

> Because many of the existing effects discussed in the section "Existing Effects of Impaired Water Quality on Fish" are cumulative, it is difficult to determine the relative contribution of irrigated lands and other sources. For example, low DO in the Stockton Deepwater Ship Channel is a result of contamination from upstream nonpoint sources (possibly including agricultural runoff) and discharges from the Stockton sewage treatment plant (Lehman et al. 2004; Central Valley Water Board 2005). Application of pesticides to non-agricultural lands such as urban parks and the resultant contaminant runoff also cumulatively contribute to impacts of inputs from irrigated lands.

104-95

This level of analysis is insufficient and provides no basis for comparison of the cumulative impacts that would result from the five alternatives. Section 6 should be re-written to estimate and incorporate contaminant loads from agricultural practices on irrigated lands to both surface water and groundwater under each alternative. The contaminant loads should be compared to other contaminant loads (other agricultural operations (e.g. dairies) and industrial discharge (e.g., treated sewage discharges) that are

3

contributed to downstream water bodies, including the Delta and the San Francisco Bay, to predict cumulative impacts from Central Valley irrigated agricultural operations.

Cumulative effects are essential to consider, given the impact of poor water quality on downstream ecologic receptors. For example, pelagic organisms such as the delta smelt are in decline in the upper San Francisco Estuary. The decline is not only because of direct smelt mortality from entrainment at pump intakes but also because of exposure of smelt and smelt prey to toxics and nitrogen. (http://www.sciencedaily.com/releases/2010/05/100517161144.htm and http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/pelagic_organism/docs/pos_reposdoc_2007synthesis_011508.pdf) Studies have also shown that contaminants, including pesticides, have been linked to the decline of striped bass in the Upper Sacramento River (http://www.sciencedaily.com/releases/2008/12/081209100940.htm). Cumulative impacts are also important to consider in the decline of anadromous fish, where contaminants are one factor contributing to significant population reductions (see, for example PEIR p 5.8-20).

104-95 cont'd

Cumulative impacts are also important to consider in impacts on recreation. For example, the growth of water hyacinth (Eichhornia crassipes) in the Sacramento-San Joaquin River Delta as a result of increased nutrient loads (nitrogen and phosphorus). (http://www.dfg.ca.gov/PDF/Egeria/WHSeilProbsExcerpts.pdf) The rapid growth of water hyacinth has resulted in impacts to boating and recreational use by impeding waterway navigation and swimming.

Despite these and other well-known and significant impacts, the PEIR fails to discuss cumulative impacts to water quality, fisheries, and recreation from implementation of the five alternatives. The failure to consider cumulative impacts stems from the fact that contaminant and nutrient loads were not quantified in the PEIR, by alternative, as noted in Comment 1. The PEIR needs to conduct a thorough assessment of cumulative impacts that will include consideration of contaminant contributions from irrigated agricultural lands to surface water and groundwater under each alternative.

3. Surface Water Monitoring Required under Alternatives 4 and 5 is Vague

The PEIR lacks fundamental detail regarding those alternatives where farm-scale surface water monitoring may be conducted (i.e., Alternatives 4 and 5). The PEIR describes Tier 2 and Tier 3 monitoring for Alternative 4 as follows (p. 3-19):

> Tier 2: Individual tailwater, stormwater, tile drainage monitoring for constituents of concern 1 year of every 5 years.
>
> Tier 3: Individual tailwater, stormwater, tile drainage monitoring for constituents of concern.

104-96

The PEIR describes surface water monitoring under Alternative 5 as follows:

4

Under Alternative 5, each operation would be required to conduct the following monitoring and tracking for each field and submit the results to the Central Valley Water Board annually.

- Discharge monitoring for constituents of concern
- Tailwater discharges monthly
- Storm water discharges during the first event of the wet season (between October 1 and May 31) and once during the peak storm season (typically February).
- Discharges of subsurface (tile) drainage systems annually. (PEIR, p. 3-28)

104-96 cont'd

The PEIR is vague on how surface water monitoring practices and resultant data would be reviewed stating only that the Regional Board would review and approve monitoring plans of third parties and legal entities and would review monitoring reports (PEIR, p. 3-21). The PEIR does not specify criteria that would define acceptable practices for monitoring including use of appropriate QA/QC, use of state-certified laboratories, methodology for selection of constituents of concern, and required locations for stormwater sampling (i.e., upgradient/downgradient, pre- and post BMP). We understand the PEIR is a programmatic EIR; however, some level of detail is needed in a revised PEIR to evaluate the effectiveness of the farm-scale surface water monitoring that is proposed in Alternatives 4 and 5.

4. Public Health Impacts from Exposure to Contaminated Groundwater is not Considered

More than two million Californians have been exposed to harmful levels of nitrates in drinking water over the past 15 years and the population of those exposed keeps growing. The PEIR acknowledges the extent of nitrate contamination and includes, as Figure 5.9-17, a map that shows nitrate contamination to be concentrated in the Central Valley. Incredibly, however, the PEIR makes no attempt analyze how nitrogen-based fertilizer application in the Central Valley results in significant exposure of the public to contaminated groundwater, the health impacts of that exposure, or how implementation of any of the five alternatives would reduce or increase exposure, other than to say, for Alternative 1:

> Nutrient management would improve both surface water quality and groundwater quality by improving the use of chemicals and using improved application techniques, and by limiting the use of nutrients as fertilizer that could potentially seep to groundwater and add nitrate to the groundwater table. (PEIR, p. 5.9-14)

104-97

The assertion that ongoing nutrient management efforts would somehow improve water quality is not borne out by recent data. In fact, the status quo, as proposed in Alternative 1, has resulted in an increase, statewide, in the number of wells that exceeded the health limit for nitrates, from nine in 1980 to 648 by 2007. (http://articles.sfgate.com/2010-05-17/news/20901575_1_nitrate-contamination-water-supply-water-systems) Of 13,153 wells sampled statewide, 1,077 active and standby drinking water wells have

5

concentrations of nitrate above the drinking water standard of 45 mg/L. (http://www.swrcb.ca.gov/water_issues/programs/gama/docs/coc_nitrate.pdf) In Tulare County, more than 40% of private domestic water wells exceed the drinking water standard for nitrate and statewide, the majority of nitrate exceedences appear to be in the Central Valley. (http://www.swrcb.ca.gov/gama/docs/glodahl_gra2009.pdf) On the basis of more than 25 years of data, the number of wells that exceed the drinking water standard for nitrate is growing as a percentage of all nitrate detections. (http://www.swrcb.ca.gov/gama/docs/glodahl_gra2009.pdf) Clearly the status quo is not working and implementation of Alternatives 1 and 2 would likely lead for further increases in nitrate drinking water violations in the Central Valley.

Health effects of exposure to nitrates most notably results in methemoglobinemia or "blue baby syndrome." Toxic effects of methemoglobinemia occur when bacteria in the infant stomach convert nitrate to more toxic nitrite, a process that interferes with the body's ability to carry oxygen to body tissues. Infants with these symptoms need immediate medical care since the cyanosis can lead to coma and eventually death. Pregnant women are susceptible to methemoglobinemia and should be sure that the nitrate concentrations in their drinking water are at safe levels. Additionally, some scientific studies suggest a linkage between high nitrate levels in drinking water with birth defects and certain types of cancer. (http://www.swrcb.ca.gov/water_issues/programs/gama/docs/coc_nitrate.pdf)

The PEIR should be rewritten to include an assessment of the potential for the public to be exposed to nitrates in drinking water from agricultural practices in the Central Valley. The assessment of each alternative should include an estimate of nitrogen loading to fields; nitrogen fate and transport in soil, surface water, and groundwater; nitrogen monitoring; and a summary nitrogen impacts to water supplies. Linking monitoring to reassessment of each of the alternatives is critical. An annual assessment of the performance of the alternative that is selected should be required and use of the 13,000-well California Department of Public Health database should be required as a tool for evaluation of nitrate trends.

104-07 cont'd

Sincerely,

Matt Hagemann, P.G.

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27 September 2010

Bill Jennings, Executive Director
California Sportfishing Protection Alliance
3536 Rainier Avenue
Stockton, CA 95204

Subject: Monitoring Requirements for Compliance with the Irrigated Lands Regulatory Program.

You've asked me my opinion in the form of several questions about water quality monitoring. These questions are within the context of the irrigated lands regulatory program that deals with farmland and the water runoff from these lands into receiving waters in the State of California.

I am a professional geologist specializing in water chemistry, water quality, groundwater, and engineering geology. I hold professional licenses and certifications issued by the State of California for these practices, and operate a private consulting business providing these services. I have more than twenty-five years experience evaluating natural and contaminant water chemistry problems and issues. Eleven of those years were working for the California State Regional Water Quality Control Board on water quality issues related to the impacts and remedies of water pollution from industrial and cultural activities. My experience includes the development, preparation, and review of hundreds of water quality monitoring programs involving surface water as well as groundwater systems. A true and correct copy of my curriculum vita is attached.

You asked if it is possible to protect the beneficial uses of waters of the State without monitoring those waters. The answer is a simple no. Protection of beneficial uses of waters of the State is function of the ability to monitor those waters to determine their quality. This done to verify their conformity to water quality standards and goals as defined in the Basin Plan. 104-98

You asked if it was possible to evaluate the effectiveness of a water treatment system or of a management practice at a farm without monitoring the discharge. My answer is no. Evaluating the effectiveness of a technology or a practice requires that the change in water quality attributable to the specific practice or technology be verified. To do that a reference sample from the point of discharge and then a comparison sample taken from the same location after the technology or practice is implemented must be collected and analyzed. In actual practice, multiple samples over range of operating conditions must be collected to verify positive changes. 104-99

You also asked if it was possible to evaluate the effectiveness of a water treatment system or of a management practice at a farm from a distant downstream monitoring location. The basic answer is no. In such a case, before the samples are collected, the discharge is mixed and diluted in the receiving water with other sources of pollution from other farms. Any changes in water quality that may occur at the discharge are masked within this soup of waters and pollution and the performance of the technology or practice are essentially unknowable. 104-100

You asked if the downstream water quality of a complex watershed composed of multiple sub-watersheds, is a valid measure of the water quality in any or all of the individual sub-watersheds. My answer is no. While gross average conditions may be observed downstream, the conditions of individual upstream sub-watersheds will remain unknown. Between the downstream monitoring station and the various upstream watersheds, mixing and dilution occurs and the conditions at any upstream point are obscure to the downstream location. 104-101

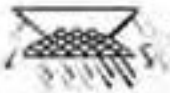
I've attached a 26 May 2003 letter from me to the Chairman of Central Valley Regional Water Quality Control Board on the subject of the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands within the Central Valley Region. This letter also addresses many of the issues associated with water quality monitoring of irrigated lands.

Sincerely

SOBC

Steve Bond PG, CEG, CHG
Principal, Steven Bond and Associates

Attachments



Steven Bond and Associates, Inc.

26 May 2003

Mr. Robert Schneider
Chairman, Central Valley Regional Water Quality Control Board
3443 Routier Road, Suite A
Sacramento, CA 95827-3003

Subject: Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands within the Central Valley Region, 24 April 2003

Chairman Schneider and Members of the Board.

I have reviewed the proposed Monitoring and Reporting Programs (MRP) for the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands within the Central Valley Region which was prepared for the 24 April 2003 Regional Board hearing. I prepared this letter on 23 May 2003 but was unable to transmit because I lacked various information available only on the Regional Water Quality Control Board Web Site, which was unavailable at that time. I was informed today that the deadline for comments was extended due to technical problems with that web site. I am submitting this letter on behalf of the Delta Keeper and Water Keepers of Northern California.

I find that the proposed MRP and associated Quality Assurance Project Plan are impressive documents with many positive elements to offer for the protection of water quality. However, in certain respects the proposed MRP is too general and provides loop holes that may result in less than adequate monitoring data.

I am a professional geologist specializing in water chemistry, water quality, groundwater, and engineering geology. I hold professional licenses and certifications issued by the State of California for these practices, and operate a private consulting business providing these services. I have eighteen years experience evaluating natural and contaminant water chemistry problems and issues. Eleven of those years were working for the California State Regional Water Quality Control Board on water quality issues related to the impacts and remedies of water pollution from industrial and cultural activities. My experience includes the development, preparation, and review of hundreds of water quality monitoring programs involving surface water as

well as groundwater systems. A true and correct copy of my curriculum vita is attached.

The decades of growth and development of the Central Valley and its agricultural industry has coincided with the decline of the quality of the Central Valley waterways. Although this decline is a matter of record, discharges and runoff from irrigated agriculture and other agricultural operations have contributed to this decline in ways that are often difficult to quantify. They are not easily quantified because because critical monitoring programs were not in place to require the collection of essential data. 104-102

Water Quality Monitoring Fundamentals

Monitoring is the central supporting element of water quality protection and conservation. All actions to protect and safeguard our water resources rely on what the monitoring informs us about the conditions of the water bodies. Monitoring programs are like the physical senses; they are the faculties which we perceive the conditions of the water bodies. Without monitoring, we are blind to all but the grossest conditions in our rivers, streams, and lakes. Further, a poor or inadequate monitoring program provides us with questionable information and ambiguous clues to guide us in making intelligent decisions regarding water quality control.

A valid monitoring program usually begins as a well-reasoned plan. It will include an assessment of water flow onto and off of an area of possible or potential pollution, and contaminants. It will include an assessment of all the potential sources of pollution and contamination and identify the elements and constituents associated with the sources. The elements can include individual constituents as well as possible adverse effects of combinations of individual constituents and or conditions. These effects will be measured as toxicity. The well-reasoned plan will address the representativeness of sample collection by the method and timing of sample collection and measurement. 104-103

A well-reasoned water-quality monitoring plan is based on a thorough understanding of flow paths and physical and chemical quality of the water moving through a watershed. This will include an understanding of the variability of the flow and quality of the water over time, and at different locations within the watershed. This understanding of the watershed becomes the standard by which subsequent monitoring data can be measured or judged. Definition of existing conditions within a

watershed will require, at a minimum, the monitoring of a full annual cycle of climatic changes. However, multiple years of data are needed to address variations in the annual cycles.

A good understanding of a watershed (existing-conditions) is highly desirable; it is usually essential. Lacking good understanding of the existing-conditions, the only option left is to measure the quantity and quality of water before (background) it enters the critical area of the watershed (project area), and then conduct identical monitoring of water as it passes from the project area. In this latter case, the background water quality becomes the standard, or benchmark which the down-river water quality can be measured and judged.

Monitoring Point Locations

Valid monitoring data can only be collected from logical points of monitoring placed within the flow path of the discharges from the potential sources of pollution (the agricultural lands) into the receiving waters; the waters of the State.

Monitoring Parameters

A reasonable water-quality monitoring program will track physical and chemical constituents of interest (constituents of concern) specific to the discharge from a source and, will define the mass of contaminants discharging from the source. The constituents of concern will include each constituent reasonably expected to come from the agricultural operation. Constituents of concern will also have the potential to impair the beneficial uses of the receiving waters, or they will be indicators or surrogates of such pollutants.

104-103 cont'd

Sample Collection Timing

Sample collection must coincide with the most likely period of time that discharge of pollutants would occur. In many cases pesticide and fertilizer application occurs only at certain times of the year and these times vary depending on the crop. Consequently a valid plan will address these variables.

Monitoring Cost Estimates

A wide range of alternative technologies exist to assist the responsible parties in efficient and cost conscious data collection. When attempting to assign a dollar cost to monitoring project, it is not reasonable to assume the that the most labor intensive sampling and analytical techniques should be used.

Monitoring Station versus Watershed Area

The proposed MRP is excessively lenient where it indicates that 20 square kilometers (5000 acres) of watershed will be a maximum area allotted per monitoring point. This language will tend to encourage dischargers to design monitoring plans around this figure and in doing so will undermine the quality of monitoring data.

For example, a monitoring plan with a large watershed and few monitoring points will inevitably have a number of small tributary water bodies located between a single monitoring point and a potential source of pollution. These small tributaries will alter the character and quality of the water and the sampled water will not be representative of the water quality impairment immediately down stream of a particular discharge. Such a program will deliver misleading and incomplete information with respect to receiving-water water quality conditions. This will result in contradictory or ambiguous conclusions with respect to the performance of any mitigation measures, or lack thereof, at the project area.

104-103 cont'd

Emphasis should be placed on the requirement that each discharge point be monitored and that each sample collected be representative of the discharge water quality. The size of an area represented by a monitoring station should be a function of the number of discharges from a specific agricultural operation.

Summary

An adequate monitoring program is a valid program. It will assess the impacts to the state's waters from agricultural operations and it will require monitoring stations at the point(s) of discharge. A valid monitoring program will monitor for all constituents of concern as well as toxicity. It will assess the total mass of pollutants discharging from individual agricultural operations and it will also include a comprehensive ambient (background) monitoring program.

Sincerely

Steve Bond
Principal, Steven Bond and Associates, Inc.

Attachment

3.3.9.1 Responses to Letter IL104

104-1

Since initiation of the current ILRP in 2003, the Central Valley Water Board and third-party groups have (1) enrolled over 25,000 growers in the program; (2) collected over 250,000 water quality data points in over 400 Central Valley waterways that receive irrigated agricultural waste discharges; and (3) required the development of regional water quality management plans to address exceedances of water quality objectives for 546 water body-constituent combinations (see Draft PEIR, Appendix A, Table 3, page 26, and Figure 10, page 27).

Concern over whether there have been any reported improving trends in water quality associated with the ILRP.

Third-party regional water quality management plans are currently being developed and many are in various stages of implementation throughout the Central Valley. Once approved by the Central Valley Water Board, third-parties and irrigated agricultural operations are required to implement the plans. Improvement in water quality should follow implementation of management plans. It will also take time to collect enough data points to verify whether any visible trends are real, or an artifact of variability or other uncertainties. The Board is also concerned and must evaluate, as plans are implemented and new data collected, whether water quality is improving under the ILRP. It is too early to associate changes in water quality (trends) with the current ILRP, given that management plans have not been fully implemented. However, a number of plans have been approved as "complete," either because source identification efforts have eliminated irrigated agriculture as a source or sufficient time/ sampling events have taken place with no further exceedances.

Central Valley Water Board may not have any idea whether farms have implemented management measures.

While it is difficult to determine when management practices have been implemented, it is clear that practices are being put in place. For example, Table 2-2 of the Draft ILRP Economics Report indicates that nutrient management is in place on over 60 percent of citrus and subtropical, deciduous fruits and nuts, and truck, nursery, and berry crops. Staff concurs that the current ILRP has not provided adequate tracking information on management practices. Alternatives 2–6 require management practices tracking to ensure that this data gap is filled in the Long-term ILRP.

Because of reliance on regional monitoring, the Board may not know whether implemented management measures are effective or whether they would be considered BPTC.

The concern of whether regional monitoring is appropriate to confirm whether management practices are in place and effective must be considered. As described on page 141 of the Draft PEIR, Appendix A, regional monitoring can be used to determine whether there is a water quality concern and whether implemented practices are effectively addressing the concern (at the regional or watershed level). This is because regional monitoring results should reflect the overall implementation of practices in place within the watershed to protect water quality (as long as monitoring locations are representative of irrigated agricultural waste discharges). If watershed monitoring is unreflective of management plan implementation, then the practices are ineffective. Therefore, review of watershed-based regional monitoring along with tracking management practices implementation will provide the Board with information regarding the implementation

and overall effectiveness of management practices and allow for evaluating whether the practices within the watershed reflect BPTC, where appropriate. Staff has proposed to include more specifics in the Long-term ILRP regarding when site-specific or field studies must be conducted. Also see Comment Letter 104, Response 18.

Farm-specific monitoring and information have not been collected.

Farm specific monitoring has not been collected under the current program. As described in the Draft PEIR, Appendix A, regional monitoring and management can be used to meet program goals and objectives and other state policy requirements (see Draft PEIR, Appendix A, pages 162–172). Development of the Long-term ILRP will consider requirements for additional individual regulation, including collecting farm-specific information, if regional efforts are not leading to improvements in water quality.

Third-party groups do not have enforcement authority to require members to implement water quality management plans.

In general, third-party groups may not have the authority to require that members implement water quality management plans. Consequently, where a third-party is unable or unwilling to require members (irrigated agricultural operations) to implement management plans, the Central Valley Water Board's only recourse would be to enforce requirements individually as the lead entity. Third-party groups provide coordination and help to leverage local expertise (e.g., Agricultural Commissioners, other government entities) in addressing water quality problems, thereby allowing the Board to reach tens of thousands of operations with minimal available staffing. The Central Valley Water Board has considered these benefits along with the mentioned enforcement concerns. The result of this consideration being that continuing the third-party lead structure in the Long-term ILRP would be acceptable as long as the ILRP provides the mechanism for the Board to enforce requirements individually, or where third-parties are noncompliant, replace the third-party as lead entity. For example, in order to ensure that third-party water quality management plans are implemented by operators, Alternative 6 requires that individual water quality management plans be developed where "…objectives are not met, improvements in water quality do not occur within the approved time schedule for implementation, or where irrigated agricultural operations are not implementing requirements in SQMPs/GQMPs."

104-2

See Comment Letter 104, Letter 1.

Alternatives 3 and 5 require individual farm water quality plans and all of the alternatives, except Alternative 3, include some form of water quality monitoring. Accordingly, these recommendations have been considered in the Draft PEIR. Also see Comment Letter 104, Response 3.

The comment's recommendations will be considered in the development of the Long-term ILRP.

104-3

Major components of the alternative described in this comment can be summarized using the program components described in the Draft PEIR, Appendix A (pages 136–141) as follows:

Implementation mechanism: WDRs or conditional waiver of WDRs.

Lead entity: Central Valley Water Board as described under Alternatives 3 and 5 (see Appendix A of the Draft PEIR, Appendix A for a description of the alternatives).

Program organization: Tiered requirements similar to those described under Alternative 4.

Water quality management plans: Individual water quality management plans similar to those described under Alternative 5.

Monitoring: Individual monitoring, similar to Alternative 5. The comment proposes that the individual monitoring could be prioritized to address areas with recognized water quality problems (e.g., surface water management plans under the current program).

The suggested alternative also describes inspection requirements. Alternatives 3, 4, and 5, evaluated in the Draft PEIR include inspection requirements.

The suggested alternative is built from the components of the alternatives evaluated in the Draft PEIR and is best characterized as Alternative 5 with prioritized individual farm monitoring. The ability to construct a proposed alternative utilizing elements contained within the existing Draft PEIR's alternatives, demonstrates that the Draft PEIR provides the Board with a reasonable range of alternatives to the current ILRP.

The following response elements correspond to the numbering in the comment letter.

1: The alternative described in the comment does not involve third-party lead entities, which is the same as Long-term ILRP Alternatives 3 and 5.However, there are no state or federal requirements precluding the involvement of third-party organizations in NPS programs (see discussion of the State NPS policy, Draft PEIR, Appendix A, page 10.)

2: This comment implies that the State Water Board's NPS Policy requires all irrigated agricultural operations to develop individual farm water quality plans, while the quoted language clearly suggests discharger assessment as an important first step. This assessment is described as part of individual farm water quality plans (required under Alternatives 3, 4, 5) and regional water quality management plans (Alternatives 1, 2, and 6). Regional water quality management plans would require growers to report (and, accordingly, assess) the practices that they are implementing to protect water quality. Such a farm specific assessment will be considered during development of the Long-term ILRP.

3: A tiered approach would help to reduce costs and provide focus for regulatory requirements. Alternatives 2, 4, and 6 each provide means of focusing regulatory requirements on problem areas. The Central Valley Water Board will consider incorporation of a tiered approach based on threat to water quality and available data during the development of the Long-term ILRP.

4: The suggested alternative includes tracking: nutrient, pesticide, and management practices. Alternatives 2–6 include mechanisms for tracking implementation of management practices. Alternatives 4 and 5 also include nutrient tracking mechanisms. It is important to note that nutrient tracking alone would not provide the information necessary to evaluate potential water quality impacts. For example, climate, soil type, depth to groundwater, type of irrigation practice, crop type, and nutrients removed during harvest are all factors that must be considered in evaluating nutrient use and potential impacts to water quality. DPR currently tracks pesticide use and that information is available for evaluation by the Central Valley Water Board, third-party groups, and dischargers. Also, see response to item 2, above.

5: The individual surface water quality monitoring described by the comment is similar to the tailwater monitoring described under Alternative 5. However, the comment also suggests that individuals should monitor influent and effluent for areas with implemented management practices to determine the efficacy of said practices. This information is not generally collected for any other Central Valley Water Board regulatory program, unless specific standards have been developed (e.g., publically owned treatment works biochemical oxygen demand [BOD] removal standards, industrial pretreatment standards). The suggested internal waste stream monitoring would be expensive and would only provide data for surface water that exists on the farm, not groundwater that exists beneath the farm or water quality in surface waterways that may or may not receive surface water discharges from the farm. The Board's authority to require monitoring reports, Section 13267 of the California Water Code, requires that: *"The burden, including costs, of these reports [monitoring] shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports."* The requirement for each individual farm to monitor internal waste streams would be difficult to justify under Section 13267. This type of monitoring would be useful and justifiable on a selective basis to demonstrate whether a new practice would be effective, and could be performed as part of research projects or selective demonstrations. Receiving water monitoring at strategically placed locations and/or tailwater monitoring could be used to evaluate the impacts of NPS discharges associated with irrigated agriculture, consistent with NPS and Antidegradation requirements (see Draft PEIR, Appendix A, pages 107–116,[Alternatives 1–5], 165–168 [Alternative 6]). Development of the Long-term ILRP will consider the usage of field studies of management practice effectiveness if improvements in water quality do not occur. Such studies may not be necessary, if water quality is improving or objectives are met.

6: The individual groundwater monitoring described by the commenter is similar to the individual monitoring described for tier 3 operations under Alternative 4, but would cover essentially all Central Valley operations as in Alternative 5 (it is estimated that an insignificant number of operations would apply for Tier 1 due to the burdensome site-specific information necessary). The comment also recommends that each operation should be required to survey nearby public supply well monitoring results for the presence of pesticides or other pollutants. This recommended monitoring would provide growers with information regarding nearby groundwater quality, but it is unclear how the information would be relevant to an individual farm unless a determination of the source of the impact can be made (what direction is groundwater flow, how old is the water in the public supply well, how is the well constructed [depth of perforated interval], or whether the pesticides detected have been used in the farming operations). As described above, California Water Code Section 13267 requires that the costs for reports must bear a reasonable relationship to the need for and benefits to be obtained from the report. In this case, it is difficult to see how the public supply well information would be used by individual growers and what benefits would be derived from the burden associated with gathering the information.

The Central Valley Water Board has the authority to require regional monitoring, but does not have the authority to establish fees to fund the Board to conduct such a program. The legislature would need to authorize such a program and the State Water Board would establish any fee schedule.

The Central Valley Water Board will consider including an option for the Executive Officer to request such site-specific monitoring in the Long-term ILRP. However, information related to nutrient budgeting will provide more timely data on changes to waste discharges to groundwater versus an extensive annual monitoring program. Groundwater aquifers can take many years to respond to changes in overlying land management.

7: This suggestion is similar to the framework described under Alternative 5, where operations would be required to develop an individual farm water quality plan, and submit the plan to the Board upon request.

8: Alternatives 3, 4, and 5 contain prioritized inspection requirements similar to those described by this comment.

9: The merits of establishing a regional monitoring program based on fees collected from all dischargers are outside the scope of the Long-term ILRP. The purpose of regional monitoring and the role of individual monitoring are discussed in the alternatives. Also see Comment Letter 123, Response 32.

10: Funding requests for the Central Valley Water Board will originate with the California EPA. The Governor will determine whether to include any such request in his proposed budget that he submits to the legislature. The Central Valley Water Board does not make decisions on where program funding originates or the level of funding available for the irrigated lands regulatory program.

104-4

See Master Response 10. In addition, CEQA does not require identification of the proposed project. However, each alternative received greater level of analysis due the lack of a proposed alternative.

104-5

The comment describes that the PEIR assumes that similar types of practices would be implemented under Alternatives 1 and 5. It is partially correct that Alternatives 1 and 5 would lead to implementation of similar types of practices to protect surface water quality, working to meet Basin Plan water quality objectives. However, in contrast to Alternative 1, Alternative 5 requires the protection of groundwater quality and specific farm-based nutrient planning requirements. Because Alternative 5 would require that irrigated agricultural operations reduce waste discharge to groundwater, the Draft PEIR assumes that additional groundwater quality management practices would be implemented (e.g., nutrient management) –when compared with Alternative 1. As shown in Table 17 of the Draft PEIR, Appendix A, the estimated costs of management practices under Alternative 5 are nearly twice the estimated costs estimated for Alternative 1. Also see Master Response 8.

The Draft PEIR estimates the types and associated environmental impacts of practices that may be implemented by irrigated agricultural operations in response to ILRP alternatives. The Central Valley Water Board's authorities do not extend to requiring specific types of management practices (California Water Code Section 13360). Therefore, none of the ILRP alternatives describe practices that must be implemented. Instead of requiring specific practices, each alternative requires that Basin Plan water quality objectives be met in waters receiving irrigated agricultural wastes. In developing the programmatic analysis, the Board has assumed that operations would implement management practices in areas throughout the region to address water quality concerns.

See Comment Letter 104, Response 18.

The concern over the effectiveness of the current program is addressed in Comment Letter 104, Response 1.

104-6

Comment noted, no response solicited or required.

104-7

See Master Response 10. In addition, CEQA does not require identification of the proposed project however each alternative received greater level of analysis due the lack of a proposed alternative.

104-8

See Comment Letter 104, Response 71.

See Master Response 10 and Comment Letter 104, Response 3.

104-9

In drafting the Draft PEIR, staff did not intend to imply that it lacked a duty to maintain applicable beneficial uses if the beneficial uses are deemed "inappropriate." In response to the comment, the language has been revised to read, "Restore and/or maintain applicable beneficial uses established in Central Valley Water Board water quality control plans by ensuring that all state waters meet applicable water quality objectives." See Chapter 4, Revisions to the Draft Program Environmental Impact Report, page 4-25 in this Final PEIR.

104-10

Resolution 68-16 does not require BPTC for all waste discharges; only those that could degrade a "high quality water."

The second objective to "*Encourage implementation of management practices that improve water quality in keeping with the first objective*…" (Draft PEIR, page 1-2) is intended to encourage operators to implement practices that would minimize their waste discharge. This objective must be considered along with the other goals and objectives. The concern that this objective diminishes the Central Valley Water Board's mandate to establish requirements that implement or be consistent with water quality control plans is not supported considering the following goal and objective:

> ***Goal 2:*** *"Minimize waste discharge from irrigated agricultural lands that could degrade the quality of State waters."*
>
> ***Objective 1:*** *"Restore and/ or maintain appropriate beneficial uses established in Central Valley Water Board Water Quality Control Plans by ensuring that all state waters within the Central Valley meet applicable water quality objectives."*

Objective 2 does not supplant or supersede Objective 1. Although not required by Resolution 68-16, the Board could determine that "BPTC" is the standard that should be met to minimize waste discharge to all waters regardless of quality.

104-11

The objective to "*Provide incentives for agricultural operations to minimize waste discharge to state waters from their operations*," is intended to encourage operators to minimize waste discharges. This objective must be considered along with the other goals and objectives. The concern that essential

water quality protection and monitoring would be traded as incentives to minimize waste discharge is not supported considering Goal 2 and Objective 1 require that waste discharge that could affect the quality of state waters be minimized and that beneficial uses be protected (Draft PEIR, Chapter 1, Summary, page 1-2). Also see Comment Letter 104, Response 10.

104-12

The comment that regional efforts have been ineffective cannot be responded to due to lack of specificity.

The program goals and objectives were developed and adopted, through consensus, by the Stakeholder Advisory Workgroup. Objective 5 requires that the ILRP promote coordination with other programs associated with irrigated agriculture (see Draft PEIR, Appendix A, page 103).

Irrigated agriculture operations are nonpoint sources. Many of the water quality concerns facing irrigated agriculture have multiple sources that may only be effectively controlled through a combined effort. Examples include nitrate sources from irrigated agriculture, dairies, septic systems, and municipalities; pesticides from cities, golf courses, and irrigated agriculture. Coordination with other programs in a watershed-based model will facilitate coordination with other waste control programs.

104-13

See Comment Letter 111, Response 56.

104-14

See Master Response 8.

104-15

See Comment Letter 104, Response 1 and Master Response 8.

104-16

See Master Response 5.

104-17

The Central Valley Water Board disagrees that farm-specific implementation and monitoring is the only way to meet the requirements of Resolution 68-16. The Draft PEIR, Appendix A programmatic evaluation adequately analyzes the ILRP alternatives with respect to the Antidegradation Policy. Orders developed under the ILRP program will include findings with regard to the consistency with the Antidegradation Policy. It must also be noted that not all operations would be required to implement BPTC; only those with waste discharges that could cause degradation of a “high quality water” are subject to the Antidegradation Policy.

104-18

Each of the alternatives has been evaluated for consistency with applicable state policy and requirements, including the NPS and Antidegradation policies. In the evaluation, only Alternatives 4, 5, and 6 were found to be fully consistent with the NPS and Antidegradation policies.

See Comment Letter 104, Response 17.

The comment also outlines concerns over whether regional monitoring can be used to provide feedback on whether changes in farm management are resulting in changes in water quality. The benefits and drawbacks of regional monitoring compared with farm-based monitoring have been considered in the Draft PEIR, Appendix A (page 95). Water quality objectives apply to the receiving waters. Therefore, regional, watershed-based monitoring of receiving waters is a reasonable approach to determine whether receiving water quality objectives are being met, including antidegradation requirements. This information can be linked to management changes within the watershed. Therefore, watershed-based monitoring can be used to provide program feedback as required by the NPS Policy, and provide information to evaluate implemented practices, on a macro- or watershed-scale.

104-19

See Comment Letter 104, Responses 17 and 18.

The Draft PEIR and Draft ILRP Economics Report discuss the types of management practices that may be implemented for all of the alternatives. Alternatives 4 and 5 require the development of individual farm water quality plans, while Alternative 6 requires the development of regional water quality plans. Regional water quality management plans would be used to assess irrigated agricultural operations, provide grower education, and develop a description of the types of practices that need to be implemented. In Alternative 6, these plans would be linked to watershed, or regional, water quality data and practices tracking, effectively targeting problem constituents in a watershed area and providing information on watershed-based efficacy of practices implemented.

The Central Valley Water Board agrees that representative field monitoring can provide valuable information on the effectiveness of management practices. However, monitoring of every field is not a requirement of the NPS Policy.

104-20

See Master Response 13.

To the extent that the comment indicates that the time schedules set during ILRP implementation should be no longer than reasonably necessary to achieve water quality objectives, Central Valley Water Board concurs.

104-21

See Comment Letter 104, Responses 3 and 18.

104-22

Potential consequences for failure to achieve ILRP objectives are presented in the Draft PEIR, Appendix A (page 113) and include iterative additional monitoring/ practices, enforcement action, and submittal of report of waste discharge. As described in the report, "*…staff will ensure consistency with Key Element 5 by including…potential consequences in the adopted long-term ILRP alternative*."

In addition to the consequences described on page 113, Alternative 6 requires individual water quality management plans where third-party developed regional plans are ineffective.

The Central Valley Water Board agrees with the comment that dissolving a non-compliant third-party would also place difficulties upon the Board. Especially where no general order is in place for individuals not enrolled in a coalition. However, this action is necessary where a third-party group is not fulfilling ILRP requirements. Accordingly, any recommended ILRP will include the development of WDRs or a waiver to be implemented in areas where either no third-party exists or it has been dissolved, or for those individual discharges not in compliance under the third-party framework.

104-23

See Master Response 10.

104-24

See Comment Letter 104, Response 1.

104-25

The project analyzed in the Draft PEIR is not agricultural operations in the Central Valley; rather, existing agricultural operations are part of the baseline of the analysis. The ILRP alternatives include a number of management and eventual regulatory actions that are designed to identify and reduce the adverse effects of runoff or percolation of water from irrigated agriculture. The anticipated effects of all alternatives are beneficial to water quality, including groundwater, in that none of the 6 alternatives will worsen water quality. There are indirect effects of implementing modified farming practices as a result of the program that are potentially adverse; these have been discussed in the Draft PEIR.

Also see Master Response 6 and Comment Letter 104, Response 18.

104-26

The support for Alternative 3 will be considered in the development of the Long-term ILRP. See Comment Letter 104, Responses 3 and 28.

104-27

The recommendation that FWQMPs be developed within 6–12 months instead of 2 years will be considered in the development of the Long-term ILRP. The shorter time frame is likely impractical if the requirement is applied to all 35,000 irrigated agricultural operations. However, a shorter timeframe may be appropriate if the requirement for individual FWQMPs has more limited applicability. In addition, because management practices would often have effects on both surface and groundwater discharges, any farm plan would likely address both issues—there would not be separate plans with different submittal deadlines.

104-28

Alternatives 4 and 5 include the requirement that individual FWQMPs be developed, without a condition that the Central Valley Water Board would review and approve the plans—as suggested by the comment. The recommendation has been evaluated in the Draft PEIR as part of Alternatives 4 and 5.

California Water Code Section 13223 describes delegation authorities between the Central Valley Water Board and Executive Officer. There is no legal requirement that the Board review or approve individual FWQMPs. Because the review of individual FWQMPs is not legally required it follows that the Board has discretion to set conditions under which the Board would not review the FWQMP. The suggested approach to utilize a third-party certifier could be implemented by setting a condition under which the Board would not review the FWQMP.

104-29

The Central Valley Water Board recognizes the support for site inspections on a certain percentage of operations each year, individual water quality plans, and tailwater monitoring.

See Comment Letter 50, Response 14.

104-30

See Comment Letter 104, Response 18.

The concerns expressed regarding the limitations of visual monitoring will be considered in the development of the ILRP. However, the NPS Policy recognizes photo monitoring as a useful means of monitoring.

104-31

The support for a tiered program as a way to focus limited resources on the more significant pollutant issues, development of individual farm plans, and individual monitoring will be considered in the development of the Long-term ILRP.

See Comment Letter 104, Responses 3 and 93.

104-32

See Comment Letter 104, Response 18.

104-33

The support for monitoring onsite wells for nitrates and pathogens will be considered in the development of the Long-term ILRP. The use of existing site wells to monitor groundwater impacts due to irrigated agricultural activates requires specific information on the well construction. See Comment Letter 9, Response 10.

Wells contained within the California Department of Public Health public drinking water supply list are generally large diameter wells that have long screened intervals and have been constructed to avoid known areas of groundwater contamination (drilled deeper to be below impacted depth or not screened opposite impacted interval). It is common practice during drilling of a public supply well to sample groundwater from various depths in the open borehole to investigate water quality. Based on this sampling, a decision is made to go deeper (below impact) to construct the well around the contaminated interval (seal off contaminated interval and only draw water from un-impacted intervals).

The well depth and length of screened interval are critical to any evaluation of groundwater data, particularly nitrate. Shallow (installed in first encountered groundwater) monitoring wells

constructed with short screen lengths provide the most accurate means for determining water quality impacts. As a general rule, the deeper a sample is collected within the water column the older the age of the water. While nitrate impacts are first detected in shallow wells, intensive pumping can result in a vertically downward contaminant migration. This downward migration of nitrate may result in increasing concentrations in the deeper domestic and public-supply wells over time.

104-34

Alternatives 4 and 6 allow for 1 year every 5 years monitoring in low priority situations. Alternative 5 considers annual monitoring. Generally, low priority operations or areas are those where there are no identified water quality problems associated with waste discharge from irrigated agriculture and the operations are not located in an area where surface/ groundwater is vulnerable due to types of operations or geophysical conditions (soil types, rainfall, etc.). The lack of identified water quality problems suggests that a much lower frequency for water quality monitoring is justified and would be consistent with California Water Code Section 13267 requirements.

The support for the individual monitoring described for Tier 3 operations under Alternative 4 will be considered in the development of the Long-term ILRP.

104-35

As discussed throughout the Draft PEIR, Appendix A, there are important advantages to be gained through the use of coalitions rather than direct regulatory oversight of tens of thousands of growers. However, the Central Valley Water Board acknowledges that enforcement options on third-party groups are limited. Any shortcomings on the part of the coalition or their member growers in addressing water quality problems can lead to delays in reducing or eliminating identified water quality impacts. Therefore, additional clarifying language will be considered for inclusion in the Long-term ILRP to describe when the Central Valley Water Board will step in to directly regulate growers in areas where sufficient progress has not been made.

104-36

See Comment Letter 104, Response 37 and Comment Letter 104, Response 93. The support for Alternative 5 will be considered in the development of the Long-term ILRP.

104-37

Not all operations would be required to implement BPTC, only those with waste discharges that could degrade a “high quality water.”

Alternative 5 includes monthly tailwater monitoring of “constituents of concern.” The comment’s suggestion that Alternative 5’s monitoring frequency (e.g., monthly tailwater sampling) is too comprehensive will be considered in the development of the Long-term ILRP. Also, as described in the comment, a reduced individual monitoring frequency has been considered as part of Alternative 4.

Page 2-19 of the Draft ILRP Economics Report provides a cost estimate for monitoring basic parameters (e.g., pH, EC, nitrates, E. coli) and up to 20 constituents of concern (organics, boron, selenium). These costs were used to estimate the potential costs of individual monitoring. The comment describes that the parameters, or constituents of concern, estimated in the Draft ILRP

Economics Report for Alternative 5 monitoring go well beyond what is necessary for protecting water quality objectives. A recommended list of constituents for individual monitoring was provided in Comment Letter, Comment 3. The list includes: flow, toxicity, total nitrogen, nitrate-nitrite, total ammonia, total phosphorous, soluble ortho-phosphate, temperature, turbidity, pH, EC, coliform, applied pesticides, metals. Table 3 of the Draft PEIR, Appendix A lists the constituents for which management plans are required in the current program. There are 7 metals and 13 pesticides in this list. These 20 constituents are essentially the "high threat" constituents of concern for the ILRP. Depending on the number of pesticides used at an individual operation, the estimate of 20 constituents of concern shown in the Draft ILPR Economics Report is reasonably consistent with the comment's description of necessary parameters (basic parameters + pesticides used + metals), notwithstanding the additional monitoring for toxicity described by the comment. Generally, the costs for toxicity monitoring are much higher than chemical parameters. Therefore, the monitoring parameters proposed by the comment would likely be more costly than the estimate provided in the Draft ILRP Economics Report.

104-38

Alternative 5 would require installation of groundwater monitoring wells. However, the alternative does not specify that every operation would be required to install monitoring wells. The alternative specifies that monitoring wells would be required "*…if requested by the Executive Officer. Locations chosen for groundwater monitoring will be prioritized based on Central Valley Water Board staff-developed vulnerability factors*." (Draft PEIR, page 3-28) Regardless, the support for utilizing existing wells for monitoring will continue to be considered in the development of the Long-term ILRP. For example, Alternative 6's regional groundwater monitoring would encourage utilization of existing wells and networks for groundwater quality monitoring.

See Comment Letter 104, Response 33. Public supply wells with their long screened intervals and perforated intervals positioned far below first encountered groundwater are generally not effective as a means of monitoring impacts due to irrigated agricultural activities. This is particularly true when using public water supply wells for evaluating management practice changes made to address a water quality concern. As a general rule, the deeper the water below the water table, the older the water. Impacts occur on the shallowest groundwater first and over time, these impacts move deeper into the aquifer.

104-39

See Comment Letter 104, Response 27.

104-40

Alternative 3 includes a requirement for individual FWQMPs to be submitted to the Central Valley Water Board. The comment's recommendation has been evaluated in the Draft PEIR as part of Alternative 3.

To the extent FWQMPs are a part of the Board adopted program, this request that they be submitted electronically to the Board for internet posting will be considered in the development of the Long-term ILRP. As the comment describes, there are several benefits to having such ready access to FWQMPs.

104-41

See Comment Letter 52, Response 2 for a discussion of the potential complexities involved with individualized ILRP requirements (e.g., Alternative 5). Alternative 5 is based on the Central Valley Water Board's Dairy Program (similar requirements and framework). Staffing needs, expressed as staff:facility ratios are expected to be similar. Accordingly, the projected staffing needs for Alternative 5 have been calculated using current Dairy Program staffing ratios (see pages 119 and 120 of the Draft PEIR, Appendix A). The Stormwater Program has been considered in the development of the ILRP (see page 86 of the Draft PEIR, Appendix A). It is important to note, however, that there are differences in complexity between the Stormwater Program and Alternative 5 that prompt the need for higher staffing ratios. See Comment Letter 104, Response 69 for additional discussion of these complexities.

104-42

See Master Response 2.

104-43

The Long-term ILRP alternatives and scope for the environmental analysis were developed cooperatively after consideration of extensive and thorough public involvement. In compliance with CEQA Guidelines Section 15123(b)(2), the Draft PEIR discusses known areas of controversy in Chapter 2, Section 2.6.4, page 2-8.

104-44

CEQA requires a lead agency to disclose to the public adverse impacts to the environment that may result from their discretionary actions. As explained in *In re Bay-Delta*, an EIR is not required to set forth alternatives and mitigation measures that go beyond reducing project impacts and seek to solve preexisting environmental problems. *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings*, 184 P.3d 709 (Cal. 2008).

The ongoing impacts of agricultural operations in the Central Valley are part of the environmental baseline of the ILRP program analyzed in the Draft PEIR. The comment mistakenly argues that a failure of the Long-term ILRP to "significantly reduce pollution discharges from irrigated lands" would represent an impact of the alternatives. Such an outcome, while unlikely, would result in continued discharges from irrigated lands, and maintenance of the baseline physical condition. Reduction of the pollution discharges the comment mentions is the primary goal of the ILRP. However, a failure to do so would not be considered an adverse impact of the program under CEQA.

The Draft PEIR addresses potential impacts of the program alternatives to recreation, aesthetics, public health and cultural resources.

The potential for recreation impacts is discussed in Chapter 5, Section 5.11 (page 5.11-2); the analysis indicates that implementation of a Long-term ILRP would not adversely affect existing recreation facilities or limit recreation opportunities.

Aesthetic effects are also addressed in Section 5.11 (page 5.11-1); the discussion states that any changes in agricultural operations generated by implementing the program would occur on active agricultural lands and would not adversely affect scenic resources.

The principle public health effects resulting from irrigated agriculture are related to transport, use, and subsequent water contamination from pesticide and herbicide use. Implementation of any of the Long-term ILRP alternatives would be expected to reduce human health risks associated with these activities (see page 5.11-1).

In addition, the Draft PEIR addresses potential impacts to cultural resources in Chapter 5, Section 5.3.

104-45

The Draft PEIR analyzed water quality impacts for all six alternatives, and determined all alternatives were likely to improve overall water quality throughout the jurisdiction of the ILRP. Therefore, the Central Valley Water Board determined there will be no significant water quality-related impacts to recreation or aesthetic resources.

104-46

See Comment Letter 104, Responses 44 and 45.

104-47

The Central Valley Water Board appreciates the California Sportfishing Alliance's (CSPA's) concern regarding the quality of water as it relates to bacteria levels. One of the primary objectives of the ILRP is to improve water quality in the state, especially within the Central Valley region, including implementation of irrigation management practices that would facilitate reduction of bacteria levels in receiving waters.

104-48

Water quality is the top priority of the Long-term ILRP.

104-49

The analysis focuses on potential changes from baseline conditions, as it should. Baseline (existing effects) is given in considerable detail. See Master Response 1 regarding the use of baseline in the Draft PEIR. As the commenter notes, contaminants are acknowledged as an issue in the DEIR. The changes that could arise from the program alternatives are given. The changes would be expected to be beneficial as surface water quality would be improved. Therefore, effects on traditional uses of salmon or other fish should also be positive compared to existing conditions.

104-50

Water quality improvement is of the utmost concern to the Water Board and is the primary motivation for the development of the ILRP. This comment will be considered by the Central Valley Water Board in development of the Long-term ILRP.

See Comment Letter 87, Response 1.

104-51

Water quality improvement is of the utmost concern to the Water Board and is the primary motivation for the development of the ILRP. This comment will be considered by the Central Valley Water Board in development of the Long-term ILRP.

See Master Response 1.

104-52

Water quality improvement is of the utmost concern to the Water Board and is the primary motivation for the development of the ILRP. This comment will be considered by the Central Valley Water Board in development of the Long-term ILRP.

See Master Response 1.

104-53

See Master Responses 6 and 8.

104-54

See Master Responses 7 and 8.

CEQA directs government agencies to disclose to the public adverse effects of their discretionary actions. As such, the Draft PEIR does not discuss in depth the relative degree of likely beneficial impacts of the ILRP alternatives. Although some EIRs do discuss the relative merits of alternatives, the focus required by CEQA is on potential negative or adverse effects.

Also see Master Response 5 and Comment Letter 50, Response 14; Comment Letter 123, Response 17; and Comment Letter 104, Response 18.

104-55

See Master Response 8. Additionally, it is noted that all program alternatives would have beneficial effects on water quality and all operational changes likely to be stimulated by the program alternatives would have effects on fisheries that can be reduced to less than significant by mitigation measures proposed in the Draft PEIR.

104-56

See Master Responses 6 and 13.

104-57

See Master Responses 8 and 9 and Comment Letter 104, Response 49.

The CEQA analysis must determine what adverse effects the program alternatives would create over and above those present within the baseline condition. Thus while, as the comment correctly notes, the water quality and fisheries impacts of allowing discharges of irrigated lands waste is known, this condition is part of the baseline. The alternatives would improve, not worsen this condition, thus no adverse impact is identified. Thus, implementation of one of the proposed program alternatives

would not contribute to cumulative surface water quality or fisheries effects. (Draft PEIR, Chapter 5, Sections 5.8 and 5.9).

104-58

See Master Response 9 and Comment Letter 104, Response 44.

The program alternatives that are analyzed include a number of management and eventual regulatory actions designed to identify and reduce the adverse effects of runoff or percolation of contaminated water from irrigated agriculture. The anticipated effects of implementing one of the program alternatives are generally considered beneficial to surface and groundwater quality as compared to the baseline. Consequently, the effects of adopting one of the proposed program alternatives would not result in significant adverse direct or indirect effects nor contribute to a cumulative adverse effect on water quality.

104-59

See Master Response 17.

104-60

See Master Response 17.

104-61

See Master Response 17.

104-62

See Master Response 17.

104-63

See Master Response 17.

104-64

See Master Response 17.

104-65

See Master Response 17.

104-66

See Master Response 17.

104-67

All the alternatives, including Alternative 1 (current program), have been evaluated for consistency with program goals and objectives, state policy, environmental and economic impacts. Thus, the Central Valley Water Board has appropriately disclosed the benefits and potential shortcomings of each alternative.

104-68

See Comment Letter 104, Response 1.

104-69

See Comment Letter 104, Response 1 and Comment Letter 52, Response 2.

Staff agrees with the comment regarding the success of the storm water program and notes that Long-term ILRP Alternatives 3 and 5 both contain the Central Valley Water Board lead structure and individual water quality planning/ monitoring structure given in the storm water program.

There are similarities between the storm water program and ILRP and some distinct differences. For instance, the Long-term ILRP would include groundwater management and monitoring and ILRP monitoring includes a complex list of pesticides, toxicity, and other constituents while the storm water program does not include groundwater management and generally uses indicator parameters in monitoring (e.g., pH, chemical oxygen demand [COD], oil and grease).These differences lead to a significant increase in the complexity of the ILRP when compared with the storm water program, ultimately requiring more resources for program implementation (e.g., costs, staffing, expertise).

Each of the ILRP alternatives has been evaluated for consistency with program goals and objectives, State policy, costs, and environmental impacts. Alternative 6 includes the third-party lead entity structure. This conclusion has been arrived at based on the consideration of all evaluation measures (see Draft PEIR, Appendix A, Sections IX and X).

104-70

See Comment Letter 104, Response 18.

The comment's characterization of the Rice Pesticide Program is not accurate. Water quality monitoring is conducted on a regional scale at locations downstream from tens to hundreds of thousands of acres of rice fields (e.g., Colusa Basin Drain, Butte Slough, Sacramento Slough). Outreach efforts by the rice industry and county agricultural commissioners are conducted annually and inspections by the commissioners are conducted to ensure compliance with pesticide permit conditions. However, neither individual field monitoring nor development of individual farm plans are required. Pesticide loads have been reduced by over 90% and only infrequent exceedances of performance goals have occurred.

Another program, the Grasslands Bypass Project, which is regulated under WDRs, primarily relies on regional monitoring and planning (no individual farm plans or farm monitoring are required). That effort has resulted in an over 60% reduction in selenium loading to the San Joaquin River and compliance with all selenium objectives, except in limited reaches that have little to no dilution flow.

By comparison, these other regional efforts have been ongoing for 15–20 years, and the regional plans developed under the current ILRP have been in place for a little over 2 years. Accordingly, drawing broad conclusions (either positive or negative) on the efficacy of the ILRP plans in addressing water quality problems is premature.

104-71

The Long-term ILRP goals and objectives were developed and adopted through consensus by the Stakeholder Advisory Workgroup. Considered together, the goals and objectives provide a balanced approach to evaluating ILRP alternatives See Comment Letter 104, Response 11.

The Draft PEIR, Appendix A evaluates whether each of the alternatives is consistent with the program goals and objectives, California Water Code, NPS Policy, and Antidegradation requirements. This evaluation considered protection of beneficial uses, state policy, costs, and environmental impacts.

In general, the California Water Code requires that, in developing waivers/WDRs, the Board implement Basin Plan requirements, consider past/present/probable future beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, environmental characteristics and available water quality, water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect water quality in the area, economic considerations, the need to develop housing in the region, and the need to develop and use recycled water [Sections 13263, 13269, and 13241]. In addition, the California Water Code requires that costs be considered in the development of any new water quality control program for agriculture [Section 13141]. The goals and objectives are consistent with the requirements of the California Water Code—to consider other factors in the development of regulatory requirements, while ensuring those requirements will result in protection of water quality.

There is also concern that the use of the term “appropriate” in Objective 1, “…maintaining appropriate beneficial uses…” would not be adequately protective of beneficial uses. See Comment Letter 104, Response 9.

See Comment Letter 104, Response 11.

See Comment Letter 104, Response 12. The Grasslands Bypass Project has helped reduce selenium discharged from the Grassland Drainage Area by 61% (from 9,600 to 3,700 lbs). The load of salts has been reduced by 39% (from 187,300 to 113,600 tons). Prior to the project, the monthly mean concentration of selenium in Salt Slough was 16 parts per billion. Since October 1996, the concentration has been less than the water quality objective of 2 parts per billion (see Draft PEIR, Appendix A, page 81). This reduction in loading shows that the Grasslands Bypass Project has been effective.

Alternative 5 includes an edge-of-field monitoring program such as that described in this comment. The costs of this program were considered, along with the benefits of individual farm monitoring versus regional monitoring (Draft PEIR, Appendix A, page 95).

Universal farm-based monitoring was not recommended considering the extensive costs and complexities involved. and that the monitoring will not answer whether agricultural discharges are affecting receiving waters (e.g., effects of multiple bio-accumulating sources on a single waterway. See Comment Letter 52, Responses 2 and 4.

The ILRP is a nonpoint source program and cannot be easily compared with point source waste discharge program requirements where a single effluent location can be determined and controlled. Feedback monitoring needs to indicate how changes in management are impacting the overall

health of receiving waters. Therefore, regional watershed-based monitoring has been recommended.

104-72

See Comment Letter 104, Responses 1 and 18.

104-73

See Comment Letter 104, Response 1. Not all irrigated agricultural operations are required to implement BPTC, only those that could cause degradation of a "high quality water," (Draft PEIR, Appendix A, page 66).

See Comment Letter 104, Responses 17 and 18.

104-74

The Central Valley Water Board acknowledges the concerns expressed by these comments, and will consider them in the development of the Long-term ILRP.

104-75

The support for including groundwater protection requirements, individual farm plans, and individual monitoring will be considered in the development of the Long-term ILRP.

See Comment Letter 104, Response 3; Comment Letter 104, Response 33; and Comment Letter 104, Response 93.

104-76

See Master Response 17.

104-77

See Master Response 17.

104-78

See Master Response 17.

104-79

See Master Response 17.

104-80

The ECR provides the baseline condition for the study. See Master Responses 1 and 17.

104-81

See Master Response 17.

104-82

See Master Response 17.

104-83

See Master Response 17.

The purpose of the Draft Economic Report was to assess the costs of regulations on growers under the ILRP alternatives, not to evaluate or estimate the costs associated with water quality improvements (Draft ILRP Economic Report, page 1-1).

104-84

See Master Response 17.

104-85

See Master Response 17.

104-86

See Master Response 17.

104-87

See Master Response 17.

104-88

See Master Responses 7 and 9. Also see Comment Letter 104, Responses 44, 58, and 95.

104-89

Watershed-based monitoring can be used to provide information to evaluate whether implemented practices, on a macro or watershed scale, are achieving BPTC (see Draft PEIR, Appendix A, pages 107–116 and 165–168). Not all operations would be required to implement BPTC, only those with waste discharges that could cause degradation of a "high quality water."

Under Alternative 1, operations would be required to implement management practices to solve surface water quality problems. The alternative does not describe that current practices are adequate, in fact, in the Draft PEIR and Draft ILRP Economics Report, management practices under Alternative 1 were estimated to be partially implemented (see Section 2.2.1.2 of the Draft ILRP Economics Report). The implementation of management practices under Alternative 1 would benefit surface water quality, just as implementation of similar practices would benefit water quality under other alternatives.

104-90

The Draft PEIR is programmatic in nature and did not include a list or detailed consideration of all possible agricultural practice changes that may be taken in response to the Long-term ILRP. Other management practices, including those adopted by DPR, may be used to improve groundwater

protection at irrigated agricultural fields. The changes in management practices that would be undertaken if Alternative 2 is selected would result in beneficial effects on surface and groundwater quality. Also see Master Responses 7 and 19.

104-91

The assessment of Alternative 3 provided in this comment is generally consistent with the Central Valley Water Board's analysis found in the Draft PEIR, Appendix A, Section IX. However, all operations would not be required to implement BPTC, only those with waste discharges that could cause degradation of a "high quality water."

104-92

See Comment Letter 104, Response 18. The support for nutrient management and the tiering system under Alternative 4 will be considered in the development of the Long-term ILRP.

104-93

See Comment Letter 104, Responses 18, 37, 38, and 89.

The suggestion to utilize a threat-based tiered scheme for individual monitoring requirements (similar to the scheme included in Alternative 4) will be considered in the development of the Long-term ILRP.

The comment's support for Alternative 5 will be considered in development of the long-time ILRP. It is appropriate to note that Alternative 5 costs are estimated to be much higher (about 176%) than those under the current program and an order of magnitude greater than the other Long-term ILRP alternatives. A large part of the costs for Alternative 5 would be related to the individualized monitoring requirements. While considering the potential benefits of increased monitoring, the possibility that increased costs could cause operations to divert resources from management practice implementation to individual monitoring must also be considered.

104-94

See Master Responses 7 and 8.

In the Draft PEIR, Appendix A, and Draft ILRP Economics Report, the Central Valley Water Board has programmatically evaluated whether each of the alternatives is consistent with the program goals and objectives, California Water Code, NPS Policy, and antidegradation requirements (comment's discussion of BPTC), and considered the environmental impacts and costs of the alternatives. In these reports, the Board has considered the elements required by state policy and law.

104-95

See Master Responses 7 and 9. Also see Comment Letter 104, Responses 44 and 58. Further, it is noted that the improved water quality conditions would be expected to have a positive effect on downstream ecological receptors; these effects would not contribute to a cumulative adverse effect on downstream resources.

104-96

Development and evaluation of the proposed ILRP alternatives is currently being undertaken at a programmatic level. The specifics regarding development of monitoring and reporting program plans, reporting requirements, sample collection, constituents of concern, sampling frequency, monitoring points, quality assurance and control requirements, laboratory methods and detection limits are all components of a monitoring and reporting program order which will be developed in conjunction with the chosen regulatory mechanism selected for implementation of the Long-term ILRP (general WDRs, conditional prohibitions of discharge, or conditional waivers).

Also see Master Response 7; Comment Letter 5, Response 1; and Comment Letter 50, Response 8.

104-97

See Comment Letter 104, Response 50.

104-98

Other feedback mechanisms (e.g., visual monitoring of waste discharge, inspection), the type of discharge (are wastes visible—sheen, color, solids), in combination with the beneficial use to be protected, all must be considered prior to drawing the conclusion of whether monitoring state waters is necessary to protect beneficial uses. For example, where a waste discharge can be recycled, thereby ceasing the discharge to a state water, only visual monitoring of the technology that is recycling the waste may be necessary. Alternatives 4, 5, and 6 require some form of surface and groundwater quality monitoring. Also, Alternatives 1 and 2 require surface water quality monitoring.

104-99

See Comment Letter 104, Responses 3.

104-100

See Comment Letter 104, Responses 3 and 18.

104-101

See Comment Letter 104, Responses 1, 3, 18 and 98.

104-102

The Central Valley Water Board agrees that the limited availability of historical data make it difficult to assess trends and causes of any decline in water quality. The monitoring goals established in Alternative 6 are meant to guide any monitoring efforts to ensure collection of the data necessary to assess water quality and evaluate the effectiveness of the ILRP.

104-103

See Comment Letter 104, Responses 3 and 18.

The Central Valley Water Board agrees that a well planned and executed sampling program is essential in producing high quality data that can be relied upon to assess water quality and the

attainment of ILRP goals. The frequency of sampling, choice of monitoring locations, specific watershed characteristics, the parameters monitored, the quality assurance/ quality control measures, as well as a fundamental understanding of agricultural crops, management practices, and costs are all necessary for a successful monitoring program. The comment's suggestions will be considered in the development of the Long-term ILRP.

3.3.10 Letter 105—California Sportfishing Protection Alliance and California Water Impact Network, Michael Lozeau, R. Lozeau Drury LLP and Bill Jennings, CSPA

This letter is approximately 500 pages of supplemental and informational reports with no specific comments.

3.3.10.1 Responses to Letter IL105

105-1

No response needed.

3.3.13 Letter 100—El Dorado County Agricultural Water Quality Management Corporation, Carolyn Mansfield, President

Comment Letter IL100

El Dorado County Agricultural Water Quality Management Corporation
A member of the Sacramento Valley Water Quality Coalition

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September 24, 2010

ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Re: Comments on the Draft Program Environmental Impact Report for a Waste Discharge Program for Irrigated Lands within the Central Valley Region

Dear Ms. Smith,

We appreciate this opportunity to comment on the reference document which will be applicable to our members of the El Dorado County Subwatershed Coalition. Our organization is a member of the Sacramento Valley Water Quality Coalition who also represents our interests.

The El Dorado County Agricultural Water Quality Management Corporation represents 323 individual growers who manage 3,330 acres of irrigated agricultural operations. We are located on portions of two Sacramento River sub-watersheds, the American and Cosumnes Rivers, with all irrigated agricultural operations at elevations of 1,000 – 3,500 feet above sea level. The total area of the portions of the two sub-watersheds that we represent is approximately 1.1 million acres.

While our operations are generally concentrated in seven distinct geographic agricultural districts, there are no areas where agriculture is truly the predominant land use. We share the land with undeveloped open spaces and rural subdivisions of 5-10 acre parcels. According to the subject PEIR documentation, there are no identified DWR Bulletin 118 ground water basins or sub-basins and there are no SWB Hydrogeologically Vulnerable areas or DPR Groundwater Protection Areas within our county.

Following are the general comments we have on the PEIR, Staff Report, and Economic Analysis. The detailed comments and recommendations are included as an attachment and are incorporated herein by reference.

1. Neither the PEIR nor the Economic Analysis accurately or adequately address the impacts of any of the alternatives, including the staff recommended alternative, to the unique sub-regions within the Central Valley especially the El Dorado County Sierra Nevada foothills. 100-1

2. The Environmental Impacts are all based solely on the implementation of Management Practices. All Resources, not just Agricultural Resources, should be evaluated for the impacts based on loss of farmland due to costs, e.g. the impact to Vegetation and Wildlife when rice fields are taken out of production. 100-2

3. Using the same methodology for determining ground water quality in areas with basins or sub-basins as areas without identified basins and sub-basins is not based in science. The results from using a monitoring well in the fractured rock areas of the foothills will not be reliably representative of the surrounding area or region since the origin of the water or any constituent in it cannot be determined. The use of monitoring wells is an inappropriate method for ground water protection in areas without basins or sub-basins. 100-3

   The program needs to identify a method of assessing ground water quality in areas without basins or sub-basins that does not rely solely on owners of irrigated agriculture operations to fund the assessment.

4. The discharge of wastes from irrigated lands as identified by the exceedances reported in the Staff Report may be grossly overstated since the source of many of the exceedances has not been identified. This approach may lead the reader to believe that *all* exceedances discussed are as a result of irrigated agricultural operations rather than urban, suburban, recreational, or wildlife sources. 100-4

5. While we support in concept tailored monitoring provisions for tiers based on threat vulnerability to groundwater, the tiering has not gone far enough. The staff recommends that ground water monitoring be required every 5 years for Tier 1 (low priority) areas. Approximately 30% of the total area of responsibility for the CVRB does not contain any identified ground water basins or sub-basins. 100-5

   We recommend the board create a Tier 0 for ground water that would apply to those areas without basins or sub-basins. Periodic assessment would rely solely on gathering existing monitoring data from other sources and reporting management practices from growers in those areas. If monitoring data from an existing source reveals pesticide exceedances then a source evaluation effort could be undertaken to determine if irrigated agriculture is the source.

6. The total estimated additional costs for the Staff Recommended Alternative is shown as $1.79/acre annually. This is grossly understated for the small farmers in our region. The El Dorado sub-coalition's average yearly cost per acre for the last seven years has been $18.91. 100-6

   If the $1.79/acre estimate of additional cost for the Staff Recommended Alternative is as accurate as the surface water estimate in the Economic Analysis, we in the foothills can expect a minimum of an additional $24.89/acre in program costs. A total of $43.80 per acre could force many of our growers out of agricultural production.

We appreciate the efforts of staff in working with the stakeholder workgroup to develop the program objectives for the proposed regulation. However, for the Sierra foothill regions like El Dorado the staff recommended alternative fails to meet those objectives.

100-7

By taking a "one size fits all" view of the millions of acres that comprise the Central Valley watersheds, the regulation fails to recognize that not all agricultural operations are managed the same. The analysis fails to characterize adequately the regions where ground water basins and sub-basins do not exist. Finally, the economic analysis does not adequately address the value-added nature of irrigated agriculture in the foothills as compared to the large commodity-based farms and ranches in the valley. The secondary, and tertiary, negative impacts that would occur to the local economy if agricultural operations failed due to the burdensome costs associated with ground water monitoring have not been identified.

100-8

We would welcome the opportunity to work with the Regional Board to develop a tiered approach that continues a management practices-based approach to preserving our excellent surface water quality while providing ground water quality protections.

Sincerely,

Carolyn Mansfield

Carolyn Mansfield, President

Attachment: As stated

cc: Bruce Houdesheldt, Sacramento Valley Regional Water Quality Coalition
Pamela Creedon, Central Valley Regional Water Quality Control Board

Attachment

El Dorado County Agricultural Water Quality Management Corporation's Comments on the Central Valley Regional Water Quality Control Board Draft Program Environmental Impact Report, Staff Recommendation, and Economic Analysis of the Long Term Irrigated Lands Regulatory Program

The El Dorado County Agricultural Water Quality Management Corporation represents 323 individual growers who operate 3,330 acres of irrigated agricultural operations. We are located on portions of two Sacramento River sub-watersheds, the American and Cosumnes Rivers with all irrigated agricultural operations at elevations of 1,000 – 3,500 feet above sea level. The total area of the portions of the two sub-watersheds that we represent is approximately 1.1 million acres. While our operations are generally concentrated in seven distinct geographic districts, there are no areas where agriculture is truly the predominant land use. We share the land with undeveloped open spaces and rural subdivisions of 5-10 acre parcels. According to the subject PEIR documentation, there are no identified DWR Bulletin 118 ground water basins or sub-basins and there are no SWB Hydrogeologically Vulnerable areas or DPR Groundwater Protection Areas within our county.

GENERAL COMMENTS

1. Neither the PEIR nor the Economic Analysis accurately or adequately address the impacts of any of the alternatives, including the staff recommended alternative, to the unique sub-regions within the central valley especially the El Dorado County Sierra Nevada foothills.

2. The Environmental Impacts are all based solely on the implementation of Management Practices. All Resources, not just Agricultural Resources, should be evaluated for the impacts based on loss of farmland due to costs, e.g. the impact to Vegetation and Wildlife when rice fields are taken out of production.

3. Using the same methodology for determining groundwater quality in areas with basins or sub-basins as areas without identified basins and sub-basins is not based in science. The results from using a monitoring well in the fractured rock areas of the foothills will not be reliably representative of the surrounding area or region since the origin of the water or any constituent in it cannot be determined. The use of monitoring wells is an inappropriate method for ground water protection in areas without basins or sub-basins. PEIR Section 2.3, page 2-3, states "the Sacramento Valley Basin covers approximately 27,210 square miles" or 14,414 million acres. PEIR Section 4.3, page 4-2 repeats this description. PEIR Section 4.6, page 4-6 states "the Sacramento Valley Basin encompasses approximately 12.2 million acres" or 19,062 square miles. The differences in the numbers can only be attributed to the fact that the smaller number represents known groundwater basins or sub-basins while the larger number refers to the surface watershed. Therefore, there are approximately 8,148 square miles (5.214 million acres) or approximately 30% of the Sacramento Valley Basin without identified groundwater basins or sub-basins. The program needs to identify a method of assessing groundwater quality in areas without basins or sub-basins that does not rely solely on owners of irrigated agriculture operations to fund the analysis. 100-9

4. Throughout all of the documentation there is inconsistent use of the term "management plans." In the current program a "Management Plan" is triggered as a result of exceedances. In the recommended alternative "SQMPs" and GQMPs" are required to be developed for all High Priority areas. Section XI.A.1 states: "The recommended long-term ILRP will require that third- 100-10

Draft PEIR Documents for LT-ILRP Page 1 of 6

party groups develop regional surface and groundwater management plans. These plans would specify management measures that would work to restore and/or maintain the highest reasonable surface and groundwater quality. Irrigated agricultural operations would be required to implement management measures identified in the plans." Section XI.A.1 implies that the California Water Code requires the development of Management Plans but does not specify when. The term "management plan" must be used consistently throughout the documents. 100-10 cont'd

Specific Comments:

PEIR

1. Section 1.2, page 1-1, provides a description of the region covered by the CVRWQCB which fails to recognize areas other than the valley floor. This is a common occurrence throughout the PEIR, the Economic Analysis and the Staff Recommended Alternative. 100-11

Recommendation: Revise all documents to acknowledge the existence and provide accurate descriptions of areas other than the valley floor.

2. Section 1.3, page 1-2, purpose number 3: "maintain the economic viability of agriculture in California's Central Valley." 100-12

Comment: Given the inadequacy of the Economic Analysis this goal is not achieved by any of the alternatives.

3. Section 1.5-3, page 1-8, identifies "Known Areas of Controversy:"
In accordance with State CEQA Guidelines Section 15123(b)(2), the areas of controversy known to the lead agency, including issues raised by agencies and the public, shall be identified in the EIR. Through public scoping, the efforts of the Workgroup, and other outreach efforts, the following areas of controversy were identified:
The costs to growers of implementing a more stringent ILRP will be prohibitive and suppress the economic sustainability or growth of agriculture.
Adding a groundwater monitoring element to the ILRP would be unnecessarily duplicative of existing monitoring efforts. 100-13
The alternatives do not contain a clear methodology for defining a groundwater discharger or determining the nature of discharges to groundwater.
The program does not take adequate steps to offset the costs to rural communities for cleanup of existing water quality impairments that can be linked back to historical agricultural discharges.

Comment: None of these areas are adequately resolved by any of the Alternatives including the Staff Recommended Alternative.

4. Section 2.5, page 2-6, 3rd Program Objective: "Provide incentives for agricultural operations to minimize waste discharge to state waters from their operations." 100-14

Comment: This Objective is not met in any of the Alternatives unless one considers punitive measures as an incentive.

5. Section 4.4.1, page 4-2, erroneously describes "Land uses in the Sacramento River Basin are principally forest and range lands in the upper reaches, with urban development 100-15

focused around the City of Sacramento. Agriculture is the dominant land use on the valley floor, followed by urban development."

Comment: The growth of urban development alongside non-rangeland agriculture in the foothills should be acknowledged and addressed. 100-15 cont'd

6. Section 5.1.1 and Table 5.1-1, page 5-1. This section sets the stage for the environmental analysis of the PEIR.

Comment #1: The "management practices" listed in Table 5.1-1 are a mixture of objectives and practices and do not reflect the practices identified in the referenced ECR, e.g. Pressurized Irrigation System is one practice used to achieve the objective of Irrigation Water Management. 100-16

Comment #2: In addition to the impact of management practice implementation, each of the resources should have been evaluated for the impact of loss of farmland due to the costs of implementing each alternative. 100-17

7. Section 5.3.3, Environmental Setting, Agriculture, page 5.3-7 acknowledges that "agriculture remains a large industry into the present day."

Comment: This contradicts all areas of the Economic Analysis where agriculture is portrayed as having the smallest industrial output in the Sacramento Valley. 100-18

8. Section 5.8.3, page 5.8-7: "Rivers reaching into the Sierra Nevada are fed by both snow melt and rainfall (e.g., the Mokelumne) whereas lower rivers not extending into the mountains receive only rainfall (e.g., the Cosumnes)."

Comment: This statement is in error: The Cosumnes is fed by snowmelt. 100-19

9. Section 5.8.3, page 5.8-7: "Dams are generally found among the foothills of mountain ranges."

Comment: Dams are also found at higher elevations, e.g. the Upper Sacramento River. 100-20

10. Section 5.10.4, Assessment Methods, page 5.10-6: "The Central Valley Production Model (CVPM) is a regional model of irrigated agricultural production and economics that simulates the decisions of agricultural producers (farmers) in the Central Valley of California."

Comment: The CVPM does not adequately or accurately address the agricultural production at elevations greater than 1,000 feet above sea level that are impacted by topographical features. 100-21

11. Section 5.10.4, Assessment Methods, page 5.10-6: "It is reasonable and logical to assume that, while some portion of the affected farmland would be converted to nonagricultural use, a majority of the lost acreage would not be converted to a nonagricultural use but instead would be used to produce a crop that would require lower compliance costs and generate sufficient revenue to stay in agricultural production."

Comment: This is not a reasonable or logical assumption. Crop conversion, especially from FFGO to either ORVIN or VEGT, can be extremely expensive and cost prohibitive. It is 100-22

more likely to assume that only a small portion of the "lost acreage" would undergo crop conversion. 100-22 cont'd

12. Section 5.10.5, page 5.10-14, Mitigation and Improvement Measures. 100-23

Recommendation: Add a second mitigation measure: Develop a less costly approach to achieving water quality objectives.

ECONOMIC ANALYSIS

1. Section 1.2, page 1-3, second paragraph, last sentence: "Results from the Central Valley were extrapolated to affected areas in the foothills and upper watersheds." 100-24

Comment: Can't find where these results are shown. These results are critical to understanding the true economic impact to the foothills.

2. Section 2.2.1.1 and Table 2-1, page 2-2: "The six water quality management practices listed in Table 2-1 were used in calculating the cost of water quality management practices by watershed and alternative." 100-25

Comment: The things listed are generally not management practices but are objectives, e.g. Irrigation Water Management as an objective is comprised of many practices including the use of pressurized irrigation systems, the use of an Irrigation Management System in conjunction with crop evapotranspiration data, and the use of buffer strips to filter any irrigation run-off water. The use of this list as "management practices" as a basis of economic impact is seriously flawed.

3. Section 2.1.2, page 2-3: "...regardless of the number of practices currently in place, there are still water quality impacts. To address these impacts, other management practices, in addition to what are in place, need to be implemented." 100-26

Comment: This is a judgment statement with no basis in fact for large portions of the Central Valley region since there are many areas with no irrigated agriculture caused impacts recorded since the beginning of the program.

4. Tables 2-3 and 2-4, pages 2-4 and 2-5. 100-27

Comment: How can there be more Enrolled Acres and Enrolled Growers than there are Estimated Acres and Estimated Growers? The discrepancies in these tables call into question the accuracy and adequacy of the entire Economic Analysis.

5. Table 2-6 and 2-7, pages 2-9 through 2-13. 100-28

Comment: The rationale for assignment of these limited "management practices" to these COCs appears to be flawed, e.g. the use of various practices within a pesticide management objective could be used in lieu of pressure irrigation.

6. Section 2.4.1 and Table 2-9, page 2-17, Scope of Cost Information. 100-29

Comment: The assignment of one cost value to each "management practice" without regard to topography, geology, soil type or crop type is meaningless. You cannot equate the

cost of irrigation water management on a 500-acre valley floor operation with the cost on a 10-acre vineyard or orchard on a slope in the Sierra foothills. 100-29 cont'd

7. Section 2.4.1.1 and Table 2-11, page 2-20: Estimated Current Cost for Compliance Actions per Acre = $1.36

Comment: The El Dorado sub-coalition's average yearly cost per acre for the last seven years has been $18.91. This example of generalization and the use of a one size fits all approach to the Economic Analysis shows how distorted the results can be for foothill areas. If the $1.26/acre estimate for ground water sampling in alternative 1 is as accurate as the surface water estimate, we in the foothills can expect a minimum of an additional $17.52/acre in program costs. A total of $36.43 per acre could force many of our growers out of agricultural production. 100-30

8. Section 3.2, page 3-1: "The portions of the study region that fall outside the Central Valley floor were designated here as the upper watersheds and were analyzed by relating them to the nearest, most appropriate CVPM region."

Comment: Where are the results of this analysis for upper watersheds? 100-31

9. Section 3.2.4, page 3-5: Evaluation for Lands in Upper Watersheds

Comment: This section ignores the upper American River Watershed and appears to ignore much of the uniqueness of the Sierra Foothills, e.g. the orchard and vineyard areas of El Dorado County. As a result the impacts are understated. 100-32

10. Table 3-6, page 3-7. Sacramento River Average Farm Size = 177.1 acres

Comment: Another example of how one size fits all using averages doesn't work. El Dorado Sub-Coalition has 323 growers with an average agriculture operation of 10.3 acres. 100-33

11. Sections 3.4.2, 3.4.3, 3.4.4, 3.4.5, 3.4.6, pages 3-10 through 3-16, Compliance Costs

Comment: Where is the math that determined the compliance costs relative to Alternative 1, e.g. $1.00/acre for Alternative 2 and $8-13/acre for Alternative 3? 100-34

12. Chapter 4, Regional Economic Impacts

Comment #1: Defining the Sacramento River Basin as a region does a disservice to all 20 counties. Stating that the regional economic impact of losing 100 acres of grapes in Yolo County is the same as 100 acres of grapes in El Dorado County is just plain wrong. 100-35

Comment #2: The IMPLAN I/O model addresses agricultural crops as "raw material" so it does not address value added processing operations such as wineries, canneries, packing sheds, pie shops, etc. Since the forward-linked impact of FFGO to livestock production was accomplished the same type of forward-linked impact of ORVIN and VEGT to the value added processing operations should be calculated. 100-36

Comment #3: The forward-linked impact to the Agritourism business is totally ignored and should be analyzed. 100-37

Comment #4: Again, because no forward-linked analysis was done the total regional output of agriculture as stated, as 2% is grossly understated.

Comment #5: The forward-linked comments for industrial output equally apply to personal income and employment. 100-37 cont'd

Comment #6: To categorically state that increased costs to a farmer would result in a beneficial net regional economic effect other than urban growth is not applicable to the foothill regions with small farms. 100-38

STAFF REPORT

1. Section III.C.1 Surface Water Summary, pages 23 – 44.

Comment: The discharge of wastes from irrigated lands as identified by the exceedances reported in this section may be grossly overstated since the source of many of the exceedances has not been identified. This approach may lead the reader to believe that all exceedances discussed are as a result of irrigated agricultural operations rather than urban, suburban, recreational, or wildlife sources. 100-39

2. Regulatory Requirements and Monitoring Provisions for Tiers. Discussions beginning on page 152.

Comment #1: A SQMP is required for any parameter that exceeds water quality objectives two or more times in a 3-year period. Developing and obtaining approval of a SQMP has proven historically to be a time consuming and costly effort. 100-40

Recommendation #1: Instead of immediately requiring the development of a SQMP there should be a requirement for a Source Identification Report (SIR) to be developed and submitted to the Regional Board for approval. If the SIR indicates irrigated agriculture to be the source then a SQMP would be appropriate.

Comment #2: Ground water monitoring is required every 5 years for Tier 1 areas. Please refer to our General Comment #3 on page 1. Approximately 30% of the total area of responsibility for the CVRB does not contain any identified ground water basins or sub-basins. 100-41

Recommendation #2: Create a Tier 0 for ground water that would apply to those areas without basins or sub-basins and would 1) rely solely on any existing monitoring data from other sources and 2) gathering and reporting management practices from growers in those areas. If monitoring data from an existing source reveals pesticide exceedances then a source identification effort would be undertaken to determine if irrigated agriculture is the source.

3. Section XI.C.1 Estimated costs, page 169. The total estimated additional costs for the Staff Recommended Alternative is shown as $1.79/acre annually.

Comment: The El Dorado sub-coalition's average yearly cost per acre for the last seven years has been $18.91. If the $1.79/acre estimate of additional cost for the Staff Recommended Alternative is as accurate as the surface water estimate in the Economic Analysis, we in the foothills can expect a minimum of an additional $24.89/acre in program costs. A total of $43.80 per acre could force many of our growers out of agricultural production. 100-42

3.3.13.1 Responses to Letter 100

100-1

See Master Responses 4, 7, and 17.

100-2

See Master Response 14.

100-3

This comment will be considered in development of the Long-term ILRP.

100-4

See Comment Letter 95, Responses 2 and 7. Also see Master Response 12.

100-5

See Comment Letter 100, Response 41.

100-6

See Master Response 17.

100-7

The characterization of groundwater basins in the study area as provided in the ECR represents the varied groundwater basin conditions that exist in the program area. The Long-term ILRP would not regulate discharges to groundwater in the same manner throughout the entire program area. The program would involve further determination of which irrigation management practices would be most appropriate to implement in individual areas based on site-specific conditions.

100-8

See Master Response 17.

100-9

See Master Responses 7 and 18.

100-10

The management plans would be regional plans developed to address water quality concerns and would have similar elements regardless of the alternative chosen. The triggers for management plans, however, would be different under Alternatives 1, 2, and 6. Because the management plans would be similar (e.g., regional plans developed by third-party groups with similar required elements) it is reasonable to use the same term throughout the PEIR. The difference is whether the plan would be required for exceedances only (Alternatives 1 and 2) or in areas with trending degradation/exceedances/vulnerability (Alternative 6).

100-11

See Comment Letter 46, Response 6. The Draft PEIR Figure 2-1 provides a map indicating the area included in the impact analysis. Also see Master Response 7.

100-12

See Master Response 17.

100-13

While CEQA does not require an economic evaluation of the proposed project, the Central Valley Regional Water Board has prepared a cost analysis of its project alternatives in a separate document (Draft ILRP Economics Report). This report has been made available to the public on the Central Valley Water Board website and will be considered by the Board before taking action on the Long-term ILRP (see <http://www.swrcb.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development>; click the *Draft Environmental Impact Report – July 2010* tab). Also see Master Response 17.

The Central Valley Water Board has identified alternatives that do not expand the current groundwater monitoring program and other alternatives that would require more extensive monitoring than currently conducted. The impacts of these various options are discussed in Chapter 5 of the Draft PEIR. Depending on what direction is provided by the Board, staff may develop further information on the methods that would be used to determine whether groundwater monitoring would be required as part of the Long-term ILRP.

See Master Response 12.

100-14

The Draft PEIR, Appendix A evaluates whether each of the alternatives is consistent with the program goals and objectives (see pages 102 and 163). In this evaluation, Alternatives 1 and 5 were not consistent with Objective 3 because all irrigated agricultural operations would be subject to the same requirements. Under these alternatives, the incentive to minimize waste discharge ultimately would be connected to whether an operation is complying with established requirements.

Alternatives 2–4 and 6 provide the following incentives:

- **Alternative 2:** reduced water quality monitoring for operations participating in an area or watershed management objectives plan.
- **Alternative 3:** certification that operations are implementing practices that are protective of surface and groundwater quality.
- **Alternative 4:** tiered system that would establish reduced requirements and/or monitoring for operations with low-threat nutrient and/or pesticide use.
- **Alternative 6:** prioritization system that would allow reduced monitoring, fees, and management requirements in lower-priority areas. Implementing water quality management practices would ensure that areas are or would continue to be low priority.

100-15

As noted in the Draft PEIR (Chapter 5, Section 5.11, page 5.11-1), it is unknown where land use changes would occur as a result of implementation of the ILRP. Further, the assessment presented in the Draft PEIR is programmatic and it is speculative to discuss future urban development in a project-specific manner. The Central Valley Water Board believes the statement in the Draft PEIR is accurate. The Board acknowledges that urban growth into foothill areas has occurred, however, further analysis of that growth is outside the scope of the Draft PEIR.

Also see Master Response 7.

100-16

The management practices included in the Draft PEIR are those presented in the ECR. Although the term "Pressurized Irrigation System" is not used in the ECR, the concept is presented in Chapter 5, Management Practices (ECR page 5-6). Further, the ECR is incorporated by reference into the Draft PEIR.

100-17

The Agriculture Resources analysis in Chapter 5, Section 5.10, evaluates this impact (Draft PEIR beginning at page 5.10-5)

100-18

The agriculture industry is large when viewed in terms of total dollars. Although it may not be as large as other sectors of the economy in the Sacramento Valley, it is a highly valuable industry.

100-19

The primary input into the Cosumnes is snowmelt. However, in the lower elevations, direct rainfall and storm water runoff are also large sources of flow for any river/creek, including the Cosumnes River.

100-20

The statement is accurate as a generalization. The presence of some dams in higher elevation locations does not impact the environmental analysis presented.

100-21

See Master Response 17.

100-22

There is evidence that a significant acreage of marginal land is being converted to higher value crops in California as money is available to invest in the infrastructure. Orchard and vine crops are examples of crops that are expanding into less productive areas or in areas where lower value crops, such as cotton, were once grown. The Draft PEIR's use of the word *majority* on page 5.10-6 may be an overstatement of likely outcomes; however, the eventual use of specific parcels of land that may

be removed from production is unknown at this time and has not been estimated for either economic or land conversion impact purposes. There is no quantitative analysis of this reuse.

The commenter has not cited specific sources that would allow the Central Valley Water Board to investigate this issue further and report it in the Final PEIR. Because it does not change any impact conclusions or create the need for new mitigation, the topic is not discussed further.

100-23

See Master Response 10.

100-24

See Master Response 17.

100-25

Irrigation water management is a practice. The cost to implement this practice is for additional labor to ensure that the objective of reducing runoff or deep percolation is achieved. Also see Master Response 17.

100-26

See Master Response 17.

100-27

See Master Response 17.

100-28

See Master Response 17.

100-29

See Master Responses 7 and 17.

100-30

See Master Response 17.

100-31

See Master Response 17.

100-32

See Master Response 17.

100-33

See Master Response 17.

100-34

See Master Response 17.

100-35

See Master Response 17.

100-36

See Comment Letter 41, Response 36.

100-37

See Comment Letter 78, Response 4 and Comment Letter 100, Response 24.

100-38

See Master Response 17.

100-39

See Comment Letter 50, Response 14 and Comment Letter 95, Responses 2 and 7.

100-40

One of the first regional water quality management plan steps is to determine whether agricultural operations are a source of the water quality concern (see Element 3 for SQMP/GQMPs, Appendix D, Draft PEIR, Appendix A). Where agricultural operations are not a source of the water quality concern, further management plan development would not be necessary.

The recommendation to require a source identification report as a first step will be considered in the development of the Long-term ILRP.

100-41

That a specific geographical location is not within a groundwater basin recognized by the California Department of Water Resources does not mean that groundwater is not present in that area. Groundwater is often present at the base of the alluvium or residual material that makes farming possible in these areas. Groundwater is also present in fractures within the underlying bedrock and is a source water to wells within the region. Because fractures within a hard rock system must be open to allow water movement into a well, the fractures also function as conduits allowing rapid migration of salts, nutrients, and pesticides into groundwater. Accordingly, these areas are considered under the ILRP.

The comment's recommended periodic assessment monitoring relying solely on gathering existing [groundwater] monitoring data from other sources and reporting management practices from growers in those areas is similar to that described under Alternative 2 for groundwater. Therefore, the Draft PEIR has identified this consideration.

100-42

See Master Response 17.

3.3.14 Letter 78—El Dorado County Farm Bureau, Merv de Haas, President

Comment Letter IL78

EL DORADO COUNTY
FARM BUREAU

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September 24, 2010

ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Re: Comments on the Draft Program Environmental Impact Report for a Waste Discharge Program for Irrigated Lands within the Central Valley Region

Dear Ms. Smith,

We appreciate this opportunity to comment on the reference document, The El Dorado County Farm Bureau represents over 1300 member families, many of whom will be affected by the proposed regulation of irrigated agricultural lands.

1. The Sierra Foothills Setting. In El Dorado County, the majority of our irrigated agricultural operations are contained within the 1,000 to 3,500 foot elevation range. While much of our agriculture occurs in designated Agricultural Districts throughout the western slope, there are no areas where agriculture is truly the dominant land use. Of the 1.1 million acres of land located within the El Dorado Subwatershed Coalition, the enrolled acres for irrigated agriculture represent 3,330 acres, or roughly .003% of this area. The average size of operation is approximately 10 acres and our farms and ranches are nestled in among recreational uses, undeveloped open space, rural subdivisions, and public roads.

2. No Ground Water Basins identified. While some of our agriculturists receive irrigation water from two purveyors, a number of our farmers and ranchers rely solely on well water sources. The topography and hydrology of the western slope require that deep wells be drilled through fractured rock to water interstices whose water origins are unknown. Within this region of the county, which is included in the proposed regulation, there are no ground water basins or sub-basins identified by DWR Bulletin 118 and there are no Hydrogeologically Vulnerable areas or DPR Groundwater Protection Areas within the county. 78-1

Since there is no vulnerability for leaching identified in this region, El Dorado County is rendered a low priority area or, stated another way, it presents no threat to ground water quality from agricultural sources. Based on these unique characteristics it is inappropriate to require ground water sampling and monitoring programs of El Dorado's agriculture as there is no way that a representative water sample could be obtained.

Protect, promote, and enhance the economic opportunities and long-term viability for El Dorado County farmers, ranchers, and foresters.

Water Code Division 6, Chapter 1, Part 2.11, Section 10921 states that *"the monitoring of ground water elevations in an area that is not within a basin or sub-basin is not required"*. We assert that for consistency the state should apply that principle to the reference regulation. In fact, we would recommend that the Board develop a lower tier regulation that does not require ground water sampling but allows agriculturists to continue to manage their operations for water quality using proven management practices where water basins do not exist. 78-1 cont'd

3. Economic Analysis is Flawed. The economic analysis and EIR understate the impact that ground water sampling would have on our local agriculturists and, indeed, the surrounding economy. The estimate for drilling monitoring wells is grossly understated for the mountain regions where wells are often drilled deep with typical well depths ranging between 300 and 750 feet. It also does not recognize that well drilling does not always result in the discovery of water, so the possibility that more than one well would be drilled is not addressed. In a business where drilling is charged "by the foot", the estimate of $5,000 cost per monitoring well is significantly understated for the costs that would actually be experienced by our farmers and ranchers. 78-2

The proposed regulation identifies a "loss of agricultural production" as a significant but unavoidable impact. In the case of El Dorado's agriculture, being faced with a costly and onerous regulatory burden that cannot be met, you could well see a drastic reduction of agricultural operations. In a region where permanent cropping exists and where even mature crops must receive some irrigation water during the average season, our farmers are unable to fallow their land. The collateral impact to the surrounding economy cannot be understated. 78-3

The economic analysis failed to evaluate the effect of value-added production of agricultural crops. All crop values in the comparative analysis for all alternatives look at raw crop values sold "Freight on Board" as shown in the County's crop reports. El Dorado County does not generally compete on a "commodity" basis. Due to the topography, climate, and water supply challenges, our small farms and ranches rely on their ability to sell direct to the consumer. The value-added component of processing grapes into wine, apples into pies, and berries into jams for the benefit of sale at a higher value has been disregarded. Therefore, the true impact to our agriculture must be viewed from the value-added sales that comprise our agriculture that supports the tourism and visitor serving industries of our county. 78-4

4. Recommendation. Our Agricultural Subwatershed Coalition is already participating in a management practices based "Pilot Program" to maintain surface water quality. We feel that the protection of ground water is already occurring with the practices being implemented. We recommend that the Regional Board develop a least regulated tier approach that continues the management practices-based program to preserve our excellent surface water quality and provide ground water protections. 78-5

5. Program Objectives. We appreciate the development of the program objectives for the proposed regulation. For the Sierra foothill regions like El Dorado the staff recommended alternative fails to meet the objective to "provide incentives for agricultural operations to minimize state discharge". 78-6

We agree with the objective to coordinate efforts with other government programs for groundwater protections. By relying on other program data it should be apparent that El Dorado irrigated agriculture has no demonstrated negative impact to ground water basins or sub-basins within the state because none are identified. 78-7

We agree that implementation of management practices can be utilized to maintain water quality, but we feel that this regulation will in fact "jeopardize the economic viability" for our small farms and ranches. 78-8

By taking a "one size fits all" view of the millions of acres that comprise the Central Valley watersheds, the regulation fails to recognize that not all agricultural operations are managed the same. The environmental and economic analyses fail to characterize adequately the regions where ground water basins and sub-basins do not exist. Finally, the economic analysis does not adequately address the value-added nature of irrigated agriculture in the foothills as compared to the large commodity-based farms and ranches in the valley. The secondary, and tertiary, negative impacts that would occur to the local economy if agricultural operations failed due to the burdensome costs associated with ground water monitoring have not been identified. There is a disproportionate impact that the cost of compliance brings to the small family farms and ranches that populate El Dorado County. We do not consider the potential loss of these operations an acceptable "unavoidable" impact of this regulation. 78-9

We would welcome the opportunity to work with the Regional Board to develop a tiered approach that would provide ground water protections without sacrificing the economic viability of El Dorado County's small farms and ranches.

Sincerely,

Merv de Haas

Merv de Haas, President

cc: Bruce Houdesheldt, Sacramento Valley Regional Water Quality Coalition
Pamela Creedon, Central Valley Regional Water Quality Control Board
Carolyn Mansfield, El Dorado County Agricultural Water Quality Management Corporation
Chris Scheuring, California Farm Bureau Federation

3.3.14.1 Responses to Letter 78

78-1

See Comment Letter 100, Response 41.

See Comment Letter 48, Response 2.

See Comment Letter 37, Response 1.

78-2

See Master Response 17. The requirement for groundwater monitoring wells is based on areas that are vulnerable to leaching or runoff to groundwater. Most of these areas are not in the mountain regions.

78-3

See Comment Letter 22, Response 1 and Comment Letter 46, Response 9.

78-4

See Master Response 17.

78-5

The recommendation to continue the Pilot Program will be considered in the development of the Long-term ILRP. This recommendation is similar to concepts articulated in Alternatives 2, 3, and 6.

78-6

Alternative 6 provides the incentive for operations to minimize waste discharge through a prioritization system that would allow reduced monitoring, fees, and management requirements in lower-priority areas. Implementing water quality management practices would work to ensure that areas are or would continue to be low priority. Alternative 6 also provides the option for individual operations to develop and implement a certified water quality plan. Operations with certified plans would be subject to reduced monitoring requirements.

78-7

The Central Valley Water Board agrees that ILRP requirements should be coordinated with other programs. See Comment Letter 45, Response 20.

78-8

The Draft PEIR analysis repeatedly recognizes that the jurisdiction of the Long-term ILRP contains widely varied physical conditions. It is this variety that led to development of the programmatic CEQA analysis approach. As development and implementation of the Long-term ILRP continues, the Central Valley Water Board will endeavor to ensure the Program appropriately addresses the variations the comment mentions.

78-9

See Master Response 17.

3.3.15 Letter 126—Glenn County Farm Bureau, Jim Jones, President

Comment Letter IL126

GLENN COUNTY FARM BUREAU

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September 24, 2010

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SACRAMENTO
CVRWQCB

Pamela Creedon, Executive Officer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive
Rancho Cordova, California 95670-6114

RE: Comments on Long Term Irrigated Lands Regulatory Program

Dear Executive Officer Creedon:

The Glenn County Farm Bureau Board of Directors representing over 800 farm and ranch families in cooperation with the Colusa Glenn Subwatershed Program have compiled the following comments and suggestions in regards to the *Programmatic Environmental Impact Report (PEIR), Recommended Program Alternative (Recommended Program), and Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (Economic Analysis)* released on July 28, 2010.

GCFB Directors would like to start by thanking you for providing us with your proposal in advance; this is an opportunity we greatly appreciate. The GCFB Board of Directors supports the comments and recommendations submitted by the Colusa Glenn Subwatershed Program. Here are a few of the that concern GCFB.

- This program is a major expansion from the current ILRP, and greater financial burden will be placed on the agriculture community.
- The cost to administer the program can range from approximately $4,000,000 to $66,000,000. 126-1
- The recommended program will have disproportional impact on smaller farming operations/landowners and some crop types.
- Concerns about the estimated cost for monitoring, they appear to be underestimated, resulting in future increased cost to agriculture.
- It is difficult to determine how the results in the Economic Analysis were arrived at. 126-2
- Monitoring every 5 years seems like an unnecessary process unless there is significant increase or change in the agricultural practices. In subwatersheds with little acreage or few members monitoring, even every 5 years is expensive. 126-3

The GCFB would like to encourage the Regional Board to consider the size of the Central Valley region and take into consideration the current groundwater data prior to

American Farm Bureau Federation/California Farm Bureau Federation

adopting new regulations. This way necessary action and further monitoring can take place where needed and as needed. 126-3 cont'd

Again, we thank you for providing us with this opportunity. The GCFB strongly encourages you to take these comments, and suggestions into consideration. Agriculture is a major factor in California's economy, in our nation's security, the economic lifeblood of many communities in the Central Valley, as well as many other important facets of our communities. Please contact the GCFB office for further questions (530)-865-9636.

Sincerely,

Jim Jones, President
Glenn County Farm Bureau

3.3.15.1 Responses to Letter 126

126-1

See Master Response 17.

126-2

See Master Response 17.

126-3

Reduction of assessment monitoring in low priority areas will be considered in development of the Long-term ILRP.

3.3.16 Letter 125—Kings County Farm Bureau, Tyler Bennett, Director

Comment Letter IL125

Kings County Farm Bureau

870 Greenfield Avenue • Hanford, California 93230
Telephone (559) 584-3557 • FAX (559) 584-1614 • www.kcfb.org

ILRP Comments
Ms. Megan Smith
630 K Street, Ste. 400
Sacramento, CA 95814

SUBJECT: Comments on the Draft Program Environmental Impact Report for the Central Valley Irrigated Lands Regulatory Program

Dear Ms. Smith:

The Kings County Farm Bureau (KCFB) provides the following significant comments and concerns on the Draft Program Environmental Impact Report for the Central Valley Irrigated Lands Regulatory Program (DPEIR), the Draft Staff report, the Recommended Program Alternative (RPA), and the Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (Economics Analysis). The Kings County Farm Bureau represents more than 700 farm operations and their opinions should be considered in this significant project, since all are affected.

Overall, we found the analysis in the DPEIR to be superficial and not specific to analyzing environmental impacts associated with the five alternatives as well as the RPA. This 2000+ page CEQA alternative document is long, unclear, disjointed, repetitive and has its meaningful components totally camouflaged by voluminous content. KCFB requests the following points noted: 125-1

The DPEIR does not analyze the RPA.

The DPEIR analyzes five proposed alternatives. Notwithstanding this extensive environmental review and lengthy period of analysis, the Regional Board staff has come forward in recent weeks with what was first known as a "staff straw proposal" which has been offered in multiple iterations during its short life and is now presented in the CEQA analysis as the recommended program alternative (RPA) – even though it is not one of the alternatives which has been analyzed through CEQA review. When it first emerged as a straw proposal, the agriculture, agribusiness, and ag water quality coalitions were in strong opposition to this late arriving alternative, and particularly voiced opposition if this proposal was not going to be subject to a full CEQA analysis. Notwithstanding such broad opposition, the staff has persisted and now presents this new and recent fresh alternative that did not undergo CEQA review or economic analysis as its preferred version of regulation. 125-2

Alternative 2 is a better amendment to the waiver.

Among the five alternatives, Alternative 2 was the best option to strengthen the existing surface water waiver and expand the waiver to groundwater. The extensive CEQA review confirms that Alternative 2 is comparatively superior. Pages 96 through 105 of the CEQA document (and in other locations), evaluates Alternative 2 as compared to the other five alternatives. It is noteworthy that Alternative 2 ranked clearly the highest of all the alternatives. 125-3

The CEQA document makes only one critical remark as to Alternative 2, where it indicates that groundwater monitoring would not be associated with newly created groundwater management plans or for local SB 1938 and Integrated Regional Plans. This criticism is inaccurate as the statutorily created local groundwater quality management plans specifically require groundwater quality monitoring and Alternative 2 expressly calls for monitoring to be also included in the newly created groundwater management plans. Therefore, Alternative 2, without reservation, is the superior alternative. 125-3 cont'd

In addition we have identified the following concerns which we understand other coalitions, such as the Southern San Joaquin Valley Water Quality Coalition (from which these comments are heavily based). These concerns are:

- **Groundwater is now included in the waiver and it presumes all irrigated lands drain to groundwater.** The document on pages 143, et seq. not only expands this surface water waiter to deal with the very complex area of groundwater, but wrongfully asserts that virtually all agricultural lands, including those that do not drain to surface waters of the state, shall be considered as discharging to groundwater. This is simply factually incorrect. 125-4

- **The lower San Joaquin Valley has far fewer water quality problems than that represented in the DPEIR.** 125-5

- **The timelines are unreasonably short.** 125-6

- **The Economic Analysis is inadequate overall and did not evaluate the staff preferred alternative.** 125-7

- **Baseline Conditions Are Misrepresented, So the Entire Environmental Analysis Is Tainted.** The DPEIR evidently relies on Alternative 1, the "No Program" Alternative, to represent the existing baseline conditions. However, the "No Program" Alternative misstates what will occur absent any Water Board action. Thus, the DPEIR lacks an accurate baseline against which to judge the environmental impacts of the proposed program. 125-8

In closing, Kings County Farm Bureau reiterates that Alternative #2 is the preferred program for the Central Valley Irrigated Lands Regulatory Program. As stated earlier, Alternative 2 is the best option to strengthen the existing surface water waiver.

Respectfully,

Tyler Bennett
Director

3.3.16.1 Responses to Letter 125

125-1

See Master Responses 4 and 7.

125-2

See Master Responses 3 and 4.

125-3

See Comment Letter 1, Response 59.

125-4

See Comment Letter 1, Response 4.

125-5

The water quality information for San Joaquin River Basin watersheds presented in the Draft PEIR was compiled from a number of sources, including coalition monitoring studies and Central Valley Water Board programs during preparation of the ECR. This data represents the baseline for evaluation of effects potentially caused by implementing one of the proposed ILRP alternatives. Also see Master Response 1.

125-6

See Comment Letter 111, Response 14.

125-7

See Master Responses 4 and 17.

125-8

See Master Response 2.

3.3.17 Letter 44—North Eastern California Water Association, Roderick McArthur, Vice President

Comment Letter IL44

North Eastern California Water Association
P.O. Box 367, McArthur, CA 96056

September 24, 2010

Delivered via email to: ILRPcomments@icfi.com

ILRP Comments
Ms. Megan Smith
ICF International
630 K Street, Suite 400
Sacramento, CA 95814

Dear Ms. Smith:

Please accept these comments of behalf of the North Eastern California Water Association (NECWA). We are a voluntary membership organization with 170 members and a geographic region that covers over 75,000 irrigated acres in the northeastern corner of the state, most of which are located in the Pit River Watershed. Our members are nestled between the Goose Lake Water Quality Coalition and Sacramento Valley groups and are a member of the Sacramento Valley Water Quality Coalition (SVWQC). NECWA was formed prior to the formation of the Irrigated Lands Regulatory Program for the purpose of protecting our members interests in water and property rights.

Comments specific to the Programmatic Draft Environmental Impact Report (PEIR) for the Irrigated Lands Regulatory Program.

One general comment regarding the analysis, the CEQA document which is being used to provide the analysis for the alternative that may or may not be selected by the Regional Board has analyzed only the five original alternatives. The sixth alternative has been analyzed in the Staff Report and Recommendation. We would wonder if the Regional Board will have the adequate CEQA coverage by constructing the analysis in that manner. 44-1

While our members have been active participants in the current Irrigated Lands Regulatory Program, (ILRP) we still believe that a regulatory program is unnecessary and is a drain on both private and public resources. Many of our members participated in the University of California's Rangeland Water Quality program that was strictly voluntary. They learned through that program how to implement many practices that improve and protect water quality. As you will note from the maps contained in the Staff Recommendation on pages 35 – 44, exceedances in our region rarely, if ever happen. There is one instance of E coli exceedance and that was attributed to factors outside of the control of irrigated agriculture. We certainly have very low to no negative impact on water quality. 44-2

NECWA's Mission is to protect and enhance water rights, water quality and riparian areas to the benefit of agriculture, the environment, recreation, and wildlife in the Northeastern California region.

2 NECWA ILRP PEIR Comments

That said, we are saddled with a costly and cumbersome regulatory program and understand that we must work within the regulatory framework that we have before us. We agree with these goals as outlined in the PEIR.

- •Encourage implementation of management practices that improve water quality in keeping with the first objective without jeopardizing the economic viability for all sizes of irrigated agricultural operations in the Central Valley or placing an undue burden on rural communities to provide safe drinking water.
- •Provide incentives (i.e., financial assistance, monitoring reductions, certification, or technical help) for agricultural operations to minimize waste discharge to state waters from their operations.
- •Promote coordination with other regulatory and non-regulatory programs associated with agricultural operations to minimize duplicative regulatory oversight while ensuring program effectiveness (e.g., U.S. Department of Agriculture [USDA] National Organic Program, State Water Board Groundwater Ambient Monitoring and Assessment Program).

Our members would encourage the Board as you deliberate in your decision to craft a program that focuses on priorities and places the appropriate level of scrutiny and cost on problem areas as well as low priority areas.

44-2 cont'd

We support the Tiering concept in Alternative 2. We agree with the staff recommendation on page 138 regarding creation of low priority areas and the concept on page 139 that creates a Tiered approach for reducing costs for the lower threat areas. However, we believe that as currently written there is a lot of confusion of how the Tiered approach would be implemented. Tiering needs to be developed using best available science and working cooperatively with knowledgeable, local resources. Please see our detailed comments below on the Staff Recommended Alternative and our concerns regarding how a 303(d) listed waterbody would be handled. Our recommendation is that our detailed monitoring be used to place our region and others like us that have no negative impact, into Tier 1, rather than using an arbitrarily listed 303(d) water body and placing our Region into Tier 2. Area priority should be re-classified by your Board using the data and information that we have collected over the term of the program.

44-3

In addition, NECWA believes that the concept of Best Practicable Treatment or Control (BPTC) should NOT be tied in any way to agricultural discharges in Tier 1. BPTC applies to industrial specific point source effluent limits - Irrigated agriculture is NOT a point source and should never be allowed to be addressed as one – it is specifically exempted from point source definition in the statute.

44-4

Comments specific to the Irrigated Lands Regulatory Program: Economics Report

NECWA is highly concerned that the economic analysis is not accurate for our region and regions like ours. The Central Valley Production Model absolutely will not apply to our region, that consists mainly of very low impact irrigated pasture and hay lands. It is very problematic to us that staff believes that a reduction in these types of operations is planned and will happen from implementation of any of the alternatives of the program. That reasoning should support placing us immediately into a Tier 1 situation and lessen our costs and burdens, not put us out of business.

44-5

3 NECWA ILRP PEIR Comments

The number of growers and acreage appear to be inaccurate as they are conflicting in a number of areas. Accurate numbers should be applied and analyzed. 44-6

One of the Key Study Assumptions states: "As discussed further in Chapter 3, the model assumes that growers will react to increased costs and other compliance requirements by adjusting crop production as needed to maximize net income and stay in business. Results from the Central Valley were extrapolated to affected areas in the foothills and upper watersheds." It continues, "It is likely; however, that growers will find or develop less expensive ways to modify their production practices, and therefore, direct impacts on their revenues and production would be less than those estimated in Chapter 3." 44-7

NECWA is highly concerned about these assumptions. Our members are highly limited by growing season, soil types, elevation and other environmental factors completely out of their control. The choice of crop types are very limited and aren't easily changed.

Comments specific to the Staff Report and Recommendation for a Preferred Alternative.

Topic: Groundwater
CVRWQCB Staff Recommendation: Include groundwater requirements.

NECWA opposes including the groundwater requirements, unless first, we are assured that we are in Tier 1 and those associated Tier 1 monitoring requirements (none) would be in effect. As you will note in the Staff Report on Figure B-9 Map of Hydrogeologically Vulnerable Areas from State Water Resources Control Board (2000) the region NEWCA covers has only one minor and very small hydrologically vulnerable area. Additionally, on Figure B-10 California Department of Pesticide Regulations Groundwater Protection Areas, you will note that in the region NECWA covers, we have NO designated Groundwater Protection areas. 44-8

Topic: Waiver vs WDR's vs Direct CVRWQCB
CVRWQCB Staff Recommendation: A series of area-, geographically based, or commodity based implementation mechanisms with prioritized requirements. Implementation mechanisms could include waivers in low-priority areas and general WDRs in high-priority areas. 44-9

NECWA would support the Waiver approach, especially as we have pointed out the little risk our members pose to having a negative effect on water quality. We believe we should be allowed to work with CVRWCQB staff to develop a region-wide waiver and with that waiver would come the designation of being in Tier 1. Recall, our membership does not pose a significant risk to impaired water quality.

Topic: Coalition vs Coalition with JPA
CVRWQCB Staff Recommendation: Third-party structure established in Alternatives 1 and 2 with additional structural and third-party transparency requirements described above.

NECWA is concerned over the Coalition with JPA. This essentially means that we, as a volunteer run, membership organization take on the role of the enforcer. NECWA became involved to assist our members in dealing with the regulatory framework (ILRP) and chose to comply and work with the program. Outlyers that have never joined a coalition, seemed to have gotten off scott free … why doesn't the CVRWQCB go after those folks who have not complied, rather than adding more burden to our volunteer coalition? 44-10

4 NECWA ILRP PEIR Comments

Topic: Lead Entity (see above)
CVRWQCB Staff Recommendation: Third-party structure established in Alternatives 1 and 2 with additional structural and third-party transparency requirements described above.

NECWA believes the coalition approach in Alternative 2 is the best approach and that the Board should enforce their power under CWC §13267 to go after those property owners that have failed to participate in the coalition process.

44-10 cont'd

Topic: Water Quality Management Plans
CVRWQCB Staff Recommendation: Regional water quality plans similar to those described in Alternatives 1 and 2 with additional requirements to (1) ensure the plans are designed to implement BPTC to minimize degradation and address exceedances of water quality objectives, and (2) develop individual water quality management plans where regional plans have been ineffective.

The Draft Staff Report makes an improper presumption that all irrigated agriculture creates a discharge of waste, In Appendix D the Surface Water Quality Management Plan (SWQMP) requirements fail to account for the possibility that irrigated agriculture may not be the predominant source of the identified exceedances as we discovered after spending a huge amount of our members dollars on surface water quality monitoring. As general qualification, the SWQMP requirements should state that only if irrigated agriculture is identified as the predominant source of the pollutant discharge should the Surface and Groundwater Quality Management Plan be required. There is a real possibility that inputs from other point and non-point sources are contributing to the exceedances identified at monitoring sites, as we discovered when there have been PH, DO and an EColi exeedance (the ONLY exceedances ever identified in all of our monitoring) and have NEVER proven to be from an agricultural source.

44-11

Topic: Tiers
CVRWQCB Staff Recommendation: Establish geographically based tiering system to reduce costs for lower threat areas.

While we support the Tiered approach, we have many questions about it's actual implementation. It appears that staff is recommending that there must be landowner level, site specific information submitted for Tier 1 to be applied. This will not be a lessening of work load and cost, but a significant increase. For example, what is the definition of High Priority Surface or Ground Water? Does the definition automatically place NECWA into Tier 2, until we can prove otherwise? Do 303d listed waterbodies automatically place NECWA into Tier 2, and if so, can we ever prove otherwise and get ourselves back to Tier 1?

The iterative process shown in Figure 21 is intended, over time, to bring all water bodies accepting agricultural wastes into compliance with water quality objectives (where agriculture is the source of exceedance) and evaluate and prevent degradation. NECWA would point out our lack of exceedances and urge the Board and Staff to place our region and other watershed areas like us, covered by a coalition, into Tier 1.

44-12

Topic: Tier 1 and Optional Certified FWQMP. NECWA believes as the Staff Alternative is currently written, it appears the only way to be in Tier 1 is by using the individual FWQMP approach. As we mentioned above, this approach will be highly burdensome and highly costly to our individual members and our coalition as a whole.

5 NECWA ILRP PEIR Comments

Topic: Enrollment and Transparency Requirements

As described in Section IX.B, enforcement of program requirements can be difficult in the third-party framework. This is because the Board cannot enforce program requirements directly upon the third party; rather, enforcement must be conducted directly upon the irrigated agricultural operations. There may be cases where the individual operations may be unaware of third-party non-compliance, and also unaware of program requirements. This potential problem is mitigated in the recommended ILRP by (1) requiring individual operations to enroll directly with the Central Valley Water Board so that they are aware of the program and requirements, (2) requiring that third-party groups provide the Board with information regarding non-compliant operations, and (3) requiring that third-party groups provide transparency and communication of requirements with growers.

44-13

NECWA would reiterate that Board Staff and the Board should maintain the enforcement component. We would agree that (3) is a good concept and we could provide the Board with the information we send to our members regarding compliance with the program.

In summary, we urge the Board to accept Alternative 2 and ensure that a Tiered approach that utilizes prioritization on problem areas, allowing for a lessened burden onto regions that are low to no negative impact.

44-14

Thank you for accepting our comments.

Sincerely,

Roderick McArthur, Vice President

North Eastern California Water Association
PO Box 367
McArthur, CA 96056

Cc: Katherine Hart, Chair
Pamela Creedon, Executive Officer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive
Rancho Cordova, CA 95670-6114

3.3.17.1 Responses to Letter 44

44-1

See Master Responses 3 and 4.

44-2

The Central Valley Water Board recognizes the support of three of the ILRP goals as well as a tiered program that focuses most resources on higher priority areas and will consider the support for this approach in development of the Long-term ILRP.

44-3

The support for Alternative 2, tiered systems, and suggestions for data sources will be considered in the development of the Long-term ILRP**.**

The priority systems described in Alternatives 2, 4, and 6 are intended to help reduce ILRP costs for areas/operations that do not have water quality problems. Under each of these alternatives, existing water quality data would be considered as part of the prioritization process. Data sources would include the current ILRP and data collected under other programs; such as the surface water ambient monitoring program (SWAMP), DPR, local groundwater management plan data, and other sources. Because there would be high costs involved with monitoring of all waters receiving agricultural waste discharges, the ILRP must consider data collected under other programs. The comment's concern that data from other programs should not be used may lead to much higher monitoring costs in order to provide a reasonable measure of effects of agricultural waste discharges. Also, structuring the ILRP without utilization of existing programs and data is in direct conflict with the program goals and objectives (see Draft PEIR, Appendix A, pages 92 and 93).

44-4

See Comment Letter 123, Response 9; Comment Letter 47, Response 6; and Comment Letter 104, Response 73. Also see Master Response 5.

44-5

See Master Responses 7 and 17. Also, regarding tiering regulations, see Comment Letter 47, Response 2.

44-6

See Comment Letter 111, Response 5.

44-7

The Central Valley Water Board recognizes that there are differences among individual growers in the amount of flexibility they have to respond to the ILRP. These concerns will be considered in the development of the Long-term ILRP.

44-8

See Comment Letter 48, Response 2.

Under Alternative 6, third-party groups and the Central Valley Water Board would identify low and high-priority areas in the development of watershed/area/commodity specific implementation mechanisms during the 3-year transition period. The Central Valley Water Board intends to use existing information in this prioritization. However, the program would have the flexibility to allow third-party groups and other interested parties to provide additional information during the process.

Tier 1 requirements would be applicable in low-priority areas. The Tier 1 groundwater monitoring requirement is for growers to participate in a regional groundwater monitoring program one year every 5 years. Additional monitoring may be required where monitoring identifies a water quality concern.

44-9

The support for developing waivers of waste discharge requirements for low priority areas, as described by Alternative 6, will continue to be considered in the development of the Long-term ILRP.

44-10

Alternatives 1, 2, and 6 include the third-party lead entity structure recommended by the comment. The Central Valley Water Board would work directly with agricultural operations in Alternatives 3 and 5. Alternative 4 proposes that the Board would work directly with operators unless a legal entity assumes responsibility for a group of operators. The commenter's support for the third-party framework described in Alternative 2, along with increased Board enforcement on non-participants, will be considered in the development of the Long-term ILRP.

44-11

See Comment Letter 10, Response 1 and Comment Letter 41, Response 23.

44-12

See Comment Letter 97, Response 6 and Comment Letter 47, Response 6.

See Comment Letter 47, Response 2.

The individual FWQMP approach is one option for operations to be considered Tier 1. However, the tier system allows characterization of geographic areas as Tier 1 based on Priority Factors (Draft PEIR, Appendix A, pages 150–151).

44-13

The support for the proposed requirements will be considered in the development of the Long-term ILRP.

44-14

The comment support for the selection of Alternative 2 will be considered in the development of the Long-term ILRP.

The tier system described in Alternative 6 is intended to work in the way this comment describes. In geographic areas that do not have water quality problems, reduced monitoring and management requirements would apply. Areas with water quality problems, where agriculture is contributes to the problem, would have additional monitoring and management requirements intended to address and monitor progress toward solving the water quality concern.

3.3.18 Letter 97—Northern California Water Association/ Sacramento Valley Water Quality Coalition, Bruce Houdesheldt, Director, Regulatory Affairs

Comment Letter IL97

SVWQC

September 24, 2010

ILRP Comments
Ms. Megan Smith
630 K Street
Sacramento, California 95814

RE: ***Comments on Long Term Irrigated Lands Regulatory Program Programmatic Environmental Impact Report (PEIR), Recommended Program Alternative (Program), and Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (Economic Analysis)***

Dear Ms Smith:

On behalf of the 8000 plus members of the Sacramento Valley Water Quality Coalition (SVWQC) with over 1.2 million acres of irrigated lands enrolled in the Coalition Conditional Waiver of Waste Discharge, the following comments, questions and suggestions are made on the *Programmatic Environmental Impact Report (PEIR), Recommended Program Alternative (Program), and Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (Economic Analysis)* released on July 28, 2010. Let me start by expressing the SVWQC's appreciation for the opportunity provided by the Regional Board to participate in the year-long stakeholder process. This allowed for discussion of important water quality issues, interpretation of policies (e.g. Tributary Rule, anti-degradation), presentation of data and modeling on key constituents of concern and to develop the range of alternatives. The SVWQC and many of its subwatersheds leaders participated actively in that process.

This type of process allowed Regional Board staff and stakeholders the opportunity to dialog in depth on important elements of the current program, benefiting not only staff, and the regulated community, but the ultimate decision makers, the Regional Board. 97-1

At first glance the Regional Board staff appears to have crafted a document that recommends ***Best-Performing Program Elements*** (Page 136-142) which are responsive to comments and concerns made by the agricultural and water quality coalition stakeholders during both the year long stakeholder process as well as during review of the two iterations of the straw proposals earlier this year. An opportunity we also appreciate the Regional Board staff under your direction undertaking.

Elements recommended by staff and highlighted as follows, are responsive to the flexibility SVWQC believes is important in the current program and any future iteration:

Implementation Mechanism (Page 138) - *Recommendation: A series of area-, geographically based, or commodity-based implementation mechanisms with prioritized requirements. Implementation mechanisms could include waivers in low-priority areas* (emphasis added) *and general WDRs in high-priority areas. Individual WDRS could be developed and implemented as an enforcement tool.* 97-2

Lead Entity (Page 138) - *Recommendation: Third-party structure established in Alternative 1 and 2 (Coalition model) with additional structure and third-party transparency requirements.* The SVWQC already meets many of the transparency requirements. 97-3

Program Organization (Page 139) – *Recommendation: Establish geographically based tiering system to reduce costs to low threat areas.* 97-4

Water Quality Management Plans (Page 140) - Recommendation: *Regional water quality plans similar to those described in Alternatives 1 and 2 with additional requirements to (1) ensure the plans are designed to implement BPTC (best practicable treatment and control) to minimize degradation and address exceedances of water quality objectives, and (2) develop individual water quality management plans where regional plans have been ineffective* (emphasis added). 97-5

However, the ***Recommended Long-Term Irrigated Lands Regulatory Program (Program)*** paints in some cases an entirely different, confusing and/ or conflicting picture of compliance, leaves our members with the feeling that the regulatory proposal lacks flexibility we were lead to believe, and will cost growers exponentially more. For example, staff has recommended Tier 1 and Tier 2 areas, with Tier 1 being low threat areas. However, at the bottom of Page 151 is the following 97-6

"Examples of high-priority areas for surface water would be those under SQMPs (Surface water Quality Management Plans) in the current ILRP (where irrigated agricultural operations are a source of the water quality concern). Area priority may be re-classified by the Central Valley Water Board based on review of new information collected during program implementation (see feedback loop in Figure 22)." 97-7

This leaves the impression that everyone starts in Tier 2 and with justification can move to Tier 1. In the SVWQC we have 54 management plans that are related to E. coli, Dissolved Oxygen and/or pH. As part of our Management Plan approved in 2009, we are in the process of source identification, management practice surveys, and if agriculture is the source, establishing goals and a schedule implementation of additional management practices to address the exceedances. However with significant sources of DO and pH from non-irrigated lands, the SVWQC members could implement management practices on every acre of irrigated ground in the Sacramento Valley and the exceedances of water quality objectives

would continue, either as a result of natural causes, or flow, or both. Given the State Water Resources Control Board's recent adoption of a Delta Flow Report that threatens to dewater the farms and habitat of the Sacramento Valley and leave Shasta and Oroville Reservoirs at dead pool levels for longer periods of the year and more frequent years, the challenges of meeting these water quality objectives only increases.

There needs to be clearer prioritization. Perhaps if AWEP/EQIP, Prop 84/50 or other sources of funding are in place or about to granted to address the Management Plan issues, these areas would be viewed as having an "action plan" to improve water quality and categorized as Tier 1.

97-7 cont'd

The following comments augment comments submitted on behalf of the Sacramento Valley Water Quality Coalition, several agricultural organizations and other water quality coalitions, by Teresa Dunham, Esq., are organized by the specific document (PEIR, Staff Report, Economic Analysis, etc.) and include recommended changes where appropriate.

I. Draft Programmatic Environmental Impact Report (DPEIR)

General Comment: The DPEIR does not analysis the Recommended Program Alternative (Program). The PEIR analyzes five proposed alternatives. Staff has combined elements of many of these alternatives to develop a sixth alternative, which staff is now recommending for approval. As the recommended alternative, the staff-developed alternative has become the proposed project. However, the Draft PEIR does not analyze this project at all.

97-8

Section 5.6 Climate Change: The DPEIR provides a narrative of the greenhouse gas inventories and impacts related to operation of well pumps, but do not take into account any carbon sequestration as an offset to air quality or climate change impacts from crop production.

97-9

II. Staff Report and Recommended Program Alternative (Program)

Surface and groundwater quality is vital to success of irrigated agriculture. Sacramento Valley growers are active stewards of this vital resource, as the number of acres in management practices, active participation of the Resource Conservation Districts, Farm Bureaus, and Agricultural Commissioners in our area, and the water quality results indicate.

The Recommended Program Alternative (Program) for the Long Term Irrigated Lands Regulatory Program represents a significant expansion of the programmatic requirements on family farmers, placing increased cost burdens on Sacramento Valley agriculture that are disproportional to the water quality monitoring results we have recorded for the last five years and stewardship practices exhibited by our growers to protect water quality.

97-10

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Page 4

A. **All Areas Classified As Tier 2 (High Impact)** – (Page 151) Despite assurances to the contrary our reading of sections like this in the Program

> "Examples of high-priority areas for surface water would be those under SQMPs in the current ILRP (where irrigated agricultural operations are a source of the water quality concern). Area priority may be re-classified by the Central Valley Water Board based on review of new information collected during program implementation (see feedback loop in Figure 22)."

97-11

Lead us to believe that irrigated agriculture would be classified as a Tier 2 (high threat) area if it is required to have a Management Plan under the current Irrigated Lands Program. Surface Water Quality Management Plans are required when 2 or more exceedances occur at a specific monitoring in a three year period. Currently the SVWQC has 54 Management Plan requirements related to DO and pH, and E. coli and seven related to pesticides.

In these instances irrigated agriculture could implement management practices on every acre and there would still be violations of DO and pH because of inputs from natural causes.

Figure 23. Long – Term ILRP Prioritization Scheme Example – (*Page 161*) This exposes the fact that very few if any areas will be Tier 1. In the portion of the diagram marked "Area A" it refers to exceedances without distinguishing if these are irrigated agricultural related exceedances, which trigger management plan requirements, as it does in the "Area B" diagram. It simply says "Surface Water Objectives exceeded" and "trending degradation of surface water attributable to ". Under this scenario an E. coli exceedance in surface water that has been determined to come from a wastewater treatment plant or non-irrigated agricultural sources would still fall under Tier 2.

97-12

Recommendations: There needs to be some better prioritization of constituents of concern.

It is requested that the language be eliminated that automatically places an area in Tier 2 if you have a Surface Water Quality Management Plans for E. coli, DO and pH in the Sacramento Valley. Additionally if AWEP/EQIP, Prop 84/50 funding is in place or about to granted, an area would be viewed as having an "action plan" to address the water quality exceedance and be classified as Tier 1 (low impact).

Figure 23 needs to refer to exceedances that are associated with irrigated agriculture, not as it does now "surface water quality exceedances. . ."

97-13

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B. **Prioritization of Surface Water Quality Issues and Groundwater Quality Issues** (Pages 159- 160)
The relationship between the prioritization of water quality issues and the *Priority Factors* (Pages 150-151) is unclear. Specifically if you have a management practice in place that is protective of water quality do you become a Tier 1 area?

Which water bodies are considered priority?— streams tributary to water bodies in the Basin Plan with aquatic life uses based on the "tributary rule", tributary streams with identified municipal or domestic drinking water intakes; water bodies

97-14

Comment: Again aquatic life beneficial use includes DO, pH, and temperature as constituents of concern. Irrigated agriculture's ability to address this issue is limited. Also the tributary rule may potentially expand the number of water bodies beyond what should be a priority. Legacy OC Pesticides are a constituent of concern for human consumption beneficial use. Since existing background levels of Legacy OC Pesticides exist in the sediment almost 40 years after it was banned, detections and exceedances of water quality objectives will exist without a contribution from irrigated agriculture.

Recommendation: Eliminate or lower the priority of DO, pH, temperature and Legacy OC Pesticides as criteria for establishing a waterbody as a priority.

C. **Priority Groundwater Quality Issues** (Page 160)

Comment: The Regional Board has developed two important policies protective of groundwater quality. The first is its "Groundwater Quality Protection Strategy: A Roadmap for the Central Valley Region" and secondly, the alternatives for the Long-Term Irrigated Lands Regulatory Program (ILRP). The SVWQC are very committed to protecting and improving groundwater quality. To be clear, most landowners who irrigate their lands use groundwater in some manner and therefore have a vested interest in either maintaining or improving the quality of groundwater in their area. With this in mind, the SVWQC believes the following approach will help the Regional Board more effectively utilize its authorities to protect groundwater while providing a sound approach for farmers, ranchers and wetlands managers to address groundwater quality.

97-15

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As the Department of Water Resources (DWR) Bulletin 118 (2003 Update) states about the Sacramento Valley Hydrological Region:

"Groundwater quality in the Sacramento River Hydrologic Region is generally excellent. However, there are areas with local groundwater problems. Natural water quality impairments occur at the north end of the Sacramento Valley in the Redding subbasin, and along the margins of the valley and around the Sutter Buttes, where Cretaceousage marine sedimentary rocks containing brackish to saline water are near the surface. Water from the older underlying sediments mixes with the fresh water in the younger alluvial aquifer and degrades the quality.

Wells constructed in these areas typically have high TDS. Other local natural impairments are moderate levels of hydrogen sulfide in groundwater in the volcanic and geothermal areas in the western portion of the region. In the Sierra foothills, there is potential for encountering uranium and radon-bearing rock or sulfide mineral deposits containing heavy metals. Human-induced impairments are generally associated with individual septic system (emphasis added) development in shallow unconfined portions of aquifers or in fractured hard rock areas where insufficient soil depths are available to properly leach effluent before it reaches the local groundwater supply.

From 1994 through 2000, 1,356 public supply water wells were sampled in 51 of the 88 basins and subbasins in the Sacramento River HR. Samples analyzed indicate that 1,282 wells, or 95 percent, met the state primary MCLs for drinking water. Seventy-four wells, or 5 percent, have constituents that exceed one or more MCL. Figure 34 shows the percentages of each contaminant group that exceeded MCLs in the 74 wells."

97-15 cont'd

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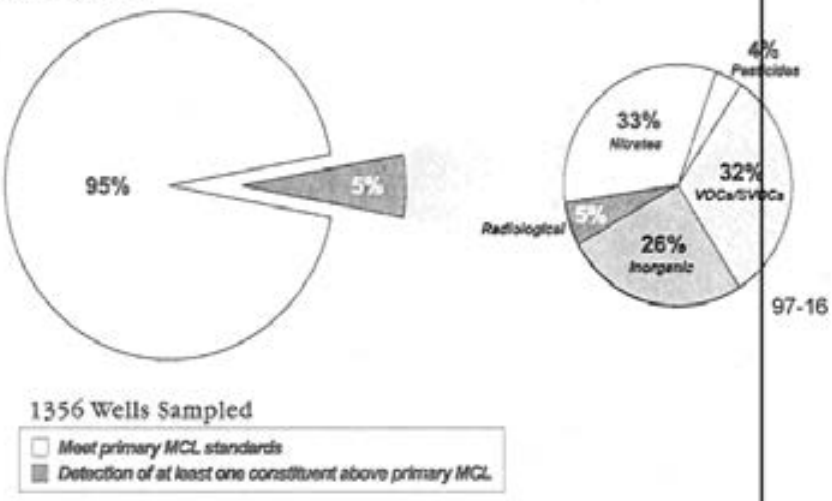
The following chart from DWR's Bulletin 118 illustrates the groundwater quality issues in the Sacramento Valley.



97-16

Figure 34 MCL exceedances in public supply wells in the Sacramento River Hydrologic Regior

Recommendations: The Regional Board has important authorities to protect groundwater quality. The Central Valley is a vast region and a strategic approach to groundwater quality will be important for these various programs to be effective and to assure that both the Regional Board and the Coalitions are utilizing their resources effectively to protect groundwater quality. To help carry out this authority, we urge the Regional Board to pursue the following:

97-15 cont'd

1. As a foundation to the ILRP, compile, analyze, and utilize existing groundwater data prior to proceeding with the adoption, regulation, and enforcement of groundwater monitoring programs within the ILRP.

   - Sources of existing data that should be fully utilized include: GAMA, Department of Pesticide Regulation, CV-SALTS, Department of Public Health, and Department of Toxic Substances Control data.

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- Once all sources of data are analyzed collectively, gaps in groundwater data will be identified. Such targeted identification will allow for proper determinations regarding necessary and appropriate actions to take to address groundwater monitoring.

2. Provide a report to the Board that describes the groundwater data and helps prioritize the areas in the Central Valley that have groundwater quality issues. The report, to the extent possible, should demarcate agricultural-related from urban and natural issues.

3. Work with the SWRCB to extend a comprehensive monitoring program established in Water Code §10781 until 2024 as called for in Water Code §10782(a) (1).

97-15 cont'd

D. Compliance time schedule—*5 to 10 years.* For watershed areas with multiple water body/pollutant issues to address, schedule may be staggered between 5 and 10 years, but cannot exceed 10 years.

Comment: When constituents of concern originate in nature, every management practice ag could do would not result in compliance. The Methylmercury TMDL has a longer compliance timeline.

Recommend: Eliminate compliance deadlines for DO, pH, temperature and Legacy OC Pesticides.

97-17

E. Appendix D - Surface and Ground Water Quality Management Plans

Comment: The submittal requirements in Appendix D appear to expand present requirements for management plans and add cost. Specifically ***Footnote 74***, "The intent of data verification is to provide confidence that the information being reported is accurate. This may include field visits to a subset of growers reporting their data or other methods to confirm data validity."

Recommendations:

1. A general caveat should be included in the language on each of the Elements 4-9, which states "If irrigated agriculture is identified as the predominant source . . ." then, 4. identify practices to address constituents of concern, 5. evaluate management practice effectiveness, 6. describe outreach to growers, 7. track management practice implementation, 8. monitoring plan to track changes in water quality, and 9. Describe schedule and milestones. In some instances, despite best efforts to identify monitoring sites that are representative of irrigated agriculture, inputs from other non-point sources contribute to the exceedances.

97-18

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2. Element 3 makes reference to ensuring that "all" growers are implementing practices to achieve BPTC for the parameter of concern. It might not be necessary to have "all" growers to implement practices to achieve WQOs. Recommend eliminating "all" and reference to BPTC.
3. Element 5 refers to "field studies" as an acceptable approach. Want to ensure this is not "the preferred" approach but one of a menu of approaches.
4. Footnote 74 refers to "field visits" as a method of data verification to give the Regional Board "confidence the information being reported is accurate." Again, in the SVWQC region it may only take broader implementation of management practices to improve water quality. The Regional Board might be able to improve their confidence level by compiling information available about AWEP/EQIP, Prop 50 and 84 grant funding, etc., to get a broad sense of what of management practices being implemented. It wouldn't provide specific locations, but would broaden the publics' understanding that agriculture is stewards of water quality.
5. Element 8 of the Groundwater Quality Management Plan requirements have cost implications. To track changes in water quality – which in groundwater's case may be decades before changes are realized—"The monitoring plan may need to include other sites or a different depth to groundwater (e.g. monitoring first encountered groundwater versus supply wells (emphasis added) or the frequency of sample collection. . ." Maintain regional monitoring unless there is a significant change in agricultural practices.
6. Lastly, Element 9, goals and schedules need to be reasonable. Management practices are slowly adopted and in some cases highly dependent on funding.

97-18 cont'd

F. Three distinctly different timelines for developing a Groundwater Quality Management Plan

Page 152 2nd Paragraph under Tier 1 - Tier 1 it appears you have 5 years to "describe the area's existing water quality management objectives in a report to the Central Valley Water Board. Management Practices tracking, every 5 years would be the method by which the Central Valley Water Board would evaluate, in general, whether operations are continuing to meeting existing management objectives."
Low priority areas (Tier 1) described using factors on Page 150-151.

Page 154 *High Priority Groundwater* This section of the Program states there would be 18 months from adoption of WDR, which is 12 months after Water Board certifies Final PEIR. It is unclear, if and how the three (3) year phase-in (Page 143) would impact this timeline. See Footnote 59 which further confuses what the timeline is for submitting GWQ Management Plans where AB 3030 and SB 1938 programs exist.

97-19

Page 157 3rd Paragraph- Priority Undetermined - in the 3rd paragraph it states, "Areas with insufficient information to determine prioritization would be required to complete assessment monitoring or studies with 5 years of long term program adoption."

97-19 cont'd

G. **Public involvement in the Tiering decision of an area makes the process potentially political versus technical.**

Page 151, last paragraph

"Third-party groups and the Central Valley Water Board would identify low and high-priority areas in the development of watershed/area/commodity–specific implementation mechanisms during the 3-year transition period. The Central Valley Water Board intends to use existing information in this prioritization. However, there will be the flexibility for third-party groups and other interested parties to provide additional information during the process."

97-20

See *Footnote 57* "During this process, there would be opportunity for public input.

H. **Tier 1 Regulatory Requirements are contradictory**

Comment: On *Page 152* Tier 1 requirements are described similar to the Pilot Management Practices in the SVWQC *Monitoring and Reporting Program Order R5-2009-0875*

> Under this tier, the Central Valley Water Board considers the existing level of management objectives as BPTC, and protective of surface and groundwater quality. Third-party groups are required to describe the area's existing water quality management objectives in a report to the Central Valley Water Board. Management practices tracking, every 5 years, would be the method by which the Central Valley Water Board would evaluate, in general, whether operations are continuing to meet existing management objectives.

97-21

On *Page 157* under Monitoring it states

> ***Surface Water***
> Monitoring would consist of tracking of management practices and watershed based assessment monitoring 1 year every 5 years (similar to the assessment monitoring required under the current ILRP). Monitoring and tracking results would be submitted in a report every 5 years to the Central Valley Water Board. Additional monitoring may be required where assessment monitoring identifies a water quality concern.

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Recommendation: Do not require assessment monitoring every 5 years unless there is significant increase or change in the agricultural practices. In subwatersheds with little acreage or few members monitoring, even every 5 years is expensive. 97-21 cont'd

I. **Other interested parties** (*Page 154, Paragraph 2 and 3*) –

Comment: Language here appears to open the door for negotiations on SQMP and GQMP to other parties – undefined. The SVWQC Management Plan (February 2009) and Monitoring and Reporting Program Order (December 2009) were approved by the Executive Officer and didn't not require Regional Board action or multi-party negotiations. This language also appears on Page 155, Paragraphs 1 and 2. 97-22

Recommendation: Delete reference to "other interested parties"

J. **Compliance Timelines of 5-10 years are problematic** - especially for groundwater quality and especially when constituents are legacy pesticides or the source of the constituent of concern is from non-irrigated agricultural sources. 97-23

K. **Ultimate Goal - Individual Farm Water Quality Management Plans** (*Page 155, Paragraph 3*) The Program states on the failure to meet water quality objectives will require Individual Farm Water Quality Management Plans (FWQMP) when water quality objectives are not met within approved time schedule for implementation or irrigated agriculture is not implementing requirements of Surface or Ground Water Quality Management Plans. As defined in Alternative 3 and summarized on Page 1-2 of the ***Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (Economic Analysis)*** Individual FWQMP "regardless of whether water quality problems have been identified. 97-24

L. **Fees** (*Page 160*) – "Fees charged will be dependent on the amount of State funding allocated through legislative appropriation and the State Water Board's analysis of the level of staff effort required to implement the program. The Central Valley Water Board will recommend that the fee structure reflect the differing levels of effort for the different tiers and oversight of irrigated agricultural operations as individuals versus as part of a third-party group." 97-25

Not sure how this works, but can understand how growers are tying the SWRCB action on the Ag Waiver Fee increase in the Governor's budget with the CVRWQCB Recommended Alternative.

M. Point of Discharge - First encounter of ground water is defined as groundwater that needs to be protected even though there are areas where first encountered ground water is not and has never been usable water for drinking or agriculture use.

The assumption that the act of irrigating a crop is considered a discharger to groundwater that causes the degradation of groundwater is not provable or plausible in many areas of the State. Many areas throughout the state are irrigated and do not discharge to groundwater. 97-26

Recommendation: Eliminate this as point of compliance. Use existing water quality data to determine if discharge is impacting surface or groundwater quality.

III. Economic Analysis

As the *Economic Analysis* states on Page 1-3, ". . . a change in the underlying assumptions . . . could substantially alter the study results." There are numerous instances in the document where is incorrect or based on faulty assumptions. As just one example, information provided on "Enrolled and Total Acres. . ." Table 2-3 on Page 2-4 and Table 2-4, "Enrolled and Total Growers", which are used to determine fees in Alternatives 1-5, bear no relation to reality. For instance, Table 2-3 shows enrolled acreage of 173,438 in Butte Yuba Sutter watershed. It does not appear all acreage or crops are included in this figure, since the SVWQC reported 220,000 and 206,000 enrolled acres in 2009 and 2010. In some cases there are more enrolled growers in a watershed than estimated growers (Upper Feather Upper Yuba, Delta Mendota). 97-27

Tables 2-3 and 2-4 are just two examples of where is it difficult to determine how the results in the Economic Analysis were arrived at, leaving us to ask the question teachers for years have preached "Show your work."

Comment: The Recommended Program Alternative has not been analysis as part of the economic analysis. 97-28

Recommendation: An independent review of the Economic Analysis should be conducted.

Comment: The Central Valley Production Model (CVPM) not appropriate for Foothill areas The model is applied to too large an area. 97-29

Megan Smith, Comments on Long Term Irrigated Lands Recommended Program
September 24, 2010
Page 13

Chapter 1 - Analytical Objectives and Approach

1.2 Key Study Assumptions (Page 1-3, Paragraphs 2 and 3)

"As discussed further in Chapter 3, the model assumes that growers will react to increased costs and other compliance requirements by adjusting crop production as needed to maximize net income and stay in business. Results from the Central Valley were extrapolated to affected areas in the foothills and upper watersheds.

"It is likely; however, that growers will find or develop less expensive ways to modify their production practices, and therefore direct impacts on their revenues and production would be less than those estimated in Chapter 3."

97-30

Comment: This seems to be a generalized statement that doesn't take into account Associated start up costs (seed, field preparation) in order to modify. Orchards for instance would not have the flexibility presumed here.

Forward linked effects understated. "Because Regional economic analysis results presented in Chapter 4 do not include forward linked effects, total regional impacts are understated."

97-31

Comment: Regional Board should provide estimate of understated impacts, as this makes validity of results otherwise suspect.

Page 1-4, Paragraph 2

"Results of the farm income analysis in Chapter 3 indicated that other crops would not be as affected as those linked to the livestock sector, so the forward-linked effects would also be smaller. Nevertheless, the exclusion of these additional forward-linked effects understates the total regional economic impacts of the Program alternatives".

97-32

Comment: We disagree that forward-linked effects of other crops would be smaller. Wine grapes for example have significant forward-linked effects. As the text points out forward-linked effects are understated. Several examples of forward-linked effects that could be included are agrotourism, food processing (e.g. tomato processing), and retail sales of wine from local vineyards.

Megan Smith, Comments on Long Term Irrigated Lands Recommended Program
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Page 14

Chapter 2 - Compliance and Management Practice Costs

2.2.1.3 Acreage and Grower Data (Page 2-3)

"The Central Valley Water Board provided information on the number of enrolled growers by watershed (Table 2-4). Enrolled growers are those currently enrolled in the Board's program and are derived from the management plan acreage. Estimated growers are based on the total acreage in the ECR watersheds. Enrolled growers were used to determine fees in Alternative 1. The estimated growers were used to estimate fees for Alternatives 2–5."

97-33

Comment: As mentioned previously this information is significantly flawed and the Regional Board should correct the information and recalculate impacts.

2.3.1 When and Where Water Quality Management Practices Are Applied (Page 2-6)

"Water quality management practices are applied when there are documented COCs (Figure 2-1, Table 2-5). The practices applied for pesticides were based on the constituent's use by crop type (Footprint 2010; PAN 2010)."

97-34

Comment: The Regional Board should use objective sources of information. The use of the Pesticide Action Network (PAN) as source is inappropriate when objective sources exist.

2.3.2 Water Quality Management Practice Cost Calculations (Page 2-14)

"In the watersheds without COCs the only practices considered are nutrient management and water management, but only if there are acres that are vulnerable to leaching."

97-35

Comment: Why is nutrient management practices considered in areas without constituents of concern? These are costs to growers and producers that bear no relationship to need.

Megan Smith, Comments on Long Term Irrigated Lands Recommended Program
September 24, 2010
Page 15

2.4.1.1 Monitoring Costs (Page 2-17)

"The alternatives have two types of sampling: basic, which covers nitrate and electrical conductivity, and comprehensive, which covers other constituents such as organic compounds and native elements such as boron or selenium. Sampling location and frequency depend on the alternative." 97-36

Comment: Are these sampling types reflective of the Monitoring and Reporting Program Order requirements on Coalitions? If not, this understates costs.

Table 2-10. Surface and Groundwater Monitoring Cost Breakdown for Use in All Alternatives 97-37

Comment: The frequency of sampling in this table significantly understates costs. In much of the Sacramento Valley Water Quality Coalition area, we sample 8-12 times a year for field parameters and constituents of concern.

Table 2-11. Estimated Cost per Acre for Current Program (Page 2-20) 97-38

DRAFT Estimated Current Annual Cost for Compliance Actions Average $/acre
State Board Ag Waiver **Fees $0.15**

Comment: The current fee is $0.12/acre

"Surface water or groundwater characterization is necessary to meet the Tier 1 requirements under Alternative 4. Using the Natural Resource Conservation Service (NRCS) time estimates (NRCS 2010), it was assumed that each review would result in a one-time cost of $2,500 (Table 2-13) for evaluation **plus testing for water quality.** These costs are applied on a per-grower basis. Therefore, a grower who needed to conduct a site-specific evaluation of both surface water and groundwater would be required to spend $5,000 in addition to costs for water quality testing." 97-39

Comment: This example of how the Recommended Program Alternative could have a disproportional impact on small farming operations and low value crops. These costs are per grower regardless of size of property. Why would additional testing be required if a grower has an approved farm water quality management plan?

Megan Smith, Comments on Long Term Irrigated Lands Recommended Program
September 24, 2010
Page 16

2.5 Water Quality Management Practices and Other Compliance Costs, by Alternative

Tables 2-19 thru 2- 22 under report actual costs

Comment: The Regional Board estimates in the PEIR that their costs to administer the program will range from approximately $4,000,000 to $66,000,000 depending on the alternative selected. Upwards of 97% of these costs would be funded by agriculture thru acreage fees assessed by the Regional Board. But these costs are footnotes to the tables and not factored into Total Compliance Costs. 97-40

Comment: In Tables 2-18 thru 2-22 are costs annual or one time. Our estimate is the cost of compliance is $13,000 per landowner, but not sure if that is a one time or annual cost.

Table 2-19. Costs by Hydrologic Basin for Alternative 2 – Third-Party Lead Entity (Page 2-25) 97-41

Comment: Growers fees increase to $548,227, what is this based on?
How was Groundwater Reporting to Third Party of $1,080,996 determined?

Table 2-20. Costs by Hydrologic Basin for Alternative 3 – Individual Farm Water Quality Management Plans (Page 2-25) 97-42

Comment: Why is there $11,874,774 Monitoring Cost for this Alternative?

We look forward to your response to the SVWQC's comments.

Sincerely,

Bruce Houdesheldt
Director, Regulatory Affairs
Northern California Water Association/Sacramento Valley Water Quality Coalition

Cc: Pamela Creedon Joe Karkoski Adam Laputz

3.3.18.1 Responses to Letter 97

97-1

See Comment Letter 41, Response 1.

97-2

See Comment Letter 41, Response 9.

97-3

See Comment Letter 41, Response 10.

97-4

The support for a geographically based tier system will be considered in the development of the Long-term ILRP.

97-5

The support for regional water quality plans will be considered in the development of the Long-term ILRP.

97-6

The comment's concern that all irrigated agriculture would automatically be in Tier 2 areas is not the intent of Alternative 6. The tier system is intended to allow the Central Valley Water Board and agriculture operations to focus their limited resources in areas with water quality concerns. The quoted example indicates that areas under surface water quality management plans in the current program would be high priority, or Tier 2, under Alternative 6, as long as irrigated agricultural operations are a contributing source of the water quality concern. Where agricultural operations are not a source of the water quality concern, these areas would not be considered Tier 2.

Continued development of the Long-term ILRP's implementing mechanisms will include expansion of "tier" definitions to clarify their applicability across watersheds and groundwater aquifers.

Also see Comment Letter 102, Response 10.

97-7

See Comment Letter 97, Response 6; Comment Letter 52, Response 6; and Comment Letter 41, Response 14.

97-8

See Master Responses 3 and 4.

97-9

See Master Response 15.

97-10

See Comment Letter 95, Responses 2 and 7 and Master Response 12.

Also see Comment Letter 52, Response 6; Comment Letter 46, Response 4; and Comment Letter 87, Response 4.

97-11

See Comment Letter 41, Response 10 and Comment Letter 52, Response 6.

97-12

See Comment Letter 1, Response 23.

See Comment Letter 52, Response 6.

See Comment Letter 41, Response 14.

97-13

See Comment Letter 123, Response23. See Chapter 4, Revisions to the Draft Program Environmental Impact Report, page 4-31 in this Final PEIR.

97-14

See Comment Letter 10, Response 3 and Comment Letter 52, Response 6.

97-15

See Comment Letter 96, Response 11; Comment Letter 50, Response 14; Comment Letter 45, Response 20; Comment Letter 111, Response 24; and Comment Letter 61, Response 3.

97-16

No response needed.

97-17

See Master Response 13.

97-18

See Comment Letter 41, Response 23.

97-19

See Comment Letter 41, Response 24.

97-20

See Comment Letter 1, Response 48.

97-21

See Comment Letter 123, Response 3.

97-22

See Comment Letter 1, Response 48.

97-23

See Master Response 13.

97-24

See Comment Letter 41, Response 29.

97-25

Comment noted.

97-26

See Master Responses 18 and 12.

97-27

See Master Response 17.

97-28

See Master Response 17.

97-29

See Master Response 17.

97-30

See Master Responses 7 and 17.

97-31

See Master Response 17.

97-32

See Master Response 17.

97-33

See Master Response 17 and Comment Letter 111, Response 5.

97-34

See Master Response 17 and Comment Letter 111, Response 5.

97-35

See Master Response 12 and 17.

97-36

See Master Response 17.

97-37

See Master Response 17.

97-38

The current State Water Board Agricultural Waiver fees are $0.12 per acre. See Master Response 17.

97-39

This comment will be considered in development of the Long-term ILRP.

97-40

See Comment Letter 41, Response 45.

97-41

See Master Response 17.

97-42

See Master Response 17.

3.3.19 Letter 115—Pacific Institute, Eli Moore, Senior Research Associate, Eyal Matalon, and Matt Heberger

Comment Letter 115

PACIFIC INSTITUTE

Via Electronic Mail

ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Re: Comments on the Central Valley Regional Water Quality Control Board's Staff-Recommended Long-Term Irrigated Lands Regulatory Program and Draft Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program

September 27, 2010

Dear Ms. Smith

We commend the State Water Board and staff for developing alternatives to the Irrigated Land Regulatory Program and are excited to see potential solutions to address a key source of the significant environmental health problem of nitrate contamination of ground water.

We are pleased to submit the enclosed comments pertaining to the Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program. Pacific Institute is currently conducting primary and secondary research on the health, social and economic effects of nitrate contamination of drinking water in the San Joaquin Valley. Our comments draw from this research and the nearly 25 years of previous work on water issues in California.

By modifying the Irrigated Lands Regulatory Program, the Board can take a major step forward toward addressing a persistent and detrimental problem affecting our state: nitrate contamination of drinking water. Nitrate contamination of ground water drawn by

115-1

private and public water systems currently adds significant expenses to already strapped water boards, local and state agencies, private well owners, and consumers. According to an analysis of public water system monitoring data by Balazs (2009), there were 93 systems in the San Joaquin Valley serving 1.3 million consumers that had nitrate levels above the MCL during at least one quarter between 2005 and 2008 (see Appendix 1). The Groundwater Ambient Monitoring and Assessment Program estimates that 10% of the 600,000 private domestic wells in the state are also above the legal limit for nitrates, affecting another 169,000 residents.[1]

Studies have found exposure to nitrates to result in serious illness and death, including significant increased risk of neural tube defects, premature birth, intrauterine growth restriction, anencephaly, increased methemoglobin levels causing pregnancy complications, central nervous system birth defects, and congenital malformations.[2] Nitrate exposure at excess levels can cause methemoglobinemia, also known as "blue baby syndrome", a cause of illness and death in infants. Additional known or suspected health effects include: respiratory tract infections in children, thyroid disruption, pancreatitis, sudden infant death syndrome (SIDS), and cancers of the digestive system.[3]

Because California has no systematic monitoring of run-off and ground water quality, it is difficult to estimate the extent of nitrate contamination attributable to agricultural activities. However, several studies point to a widespread and severe problem with nitrate contamination from agricultural sources. UC Davis researcher Thomas Harter analyzed the use of fertilizers on California farms in 2007 and estimated that on average more than 80 lbs N/acre/year may leach into the groundwater beneath irrigated lands, usually as nitrate.[4] Harter concludes that "without attenuation, 80 lbs N/acre/year would lead to groundwater NO3-N concentrations at the water table that are two to four times higher than the MCL."[5] Even though subsurface attenuation does occur in some areas, this is a remarkably high amount of unabsorbed nitrate released on irrigated lands.

115-1 cont'd

General Comments on the Economic Analysis of the ILRP

The current draft Economic Analysis ignores several categories of costs and underestimates others, producing an artificially low finding of overall economic impact. Revisions to the analytical approach and the use of additional data sources can remedy this. Methods for the revised approach can be adapted from previous studies by the U.S. EPA, the USDA, and leading scientists.

115-2

[1] State Water Resources Board, Groundwater Ambient Monitoring & Assessment Program (2010) *Summary of Detections Above a Drinking Water Standard: GAMA Domestic Well Project*. Accessed on September 20, 2010 from http://www.waterboards.ca.gov/gama/domestic_well.shtml

[2] Manassaram, Deana M., Lorraine C. Backer, and Deborah M. Moll (2006) A Review of Nitrates in Drinking Water: Maternal Exposure and Adverse Reproductive and Developmental Outcomes in *Environ Health Perspectives*, 114:320–327. doi:10.1289/ehp.8407 available via http://dx.doi.org/ [Online 3 November 2005]

[3] Various, see for example Ward, Mary H., Theo M. deKok, Patrick Levallois, Jean Brender, Gabriel Gulis, Bernard T. Nolan, James VanDerslice (2005) Workgroup Report: Drinking-Water Nitrate and Health-Recent Findings and Research Needs. *Environmental Health Perspectives*, Vol. 113, No. 11 (Nov., 2005), pp. 1607-1614

[4] Harter, Thomas (2007) Agricultural Impacts on Groundwater Nitrate. *Southwest Hydrology*, volume 6, number 4

In this letter we provide a preliminary analysis of the costs to domestic well owners, public water systems, and water consumers using available data. With this analysis, we find that, currently, the total estimated costs for these three impacted stakeholders are between $40,169,276 and $89,600,723 (See Table 1). We also analyze trends in nitrate levels in monitored wells in Kern County, and find that levels are increasing in a third of locations, and the number of wells where nitrate levels exceed federal health standards is likely to double in the next ten years.

115-2 cont'd

Table 4. Additional Cost Estimates for ILRP

115-3

	Cost estimate		Number of systems/projects			Cost per project		
	Low range	High range	Low	High	Notes	Low	High	Notes
Public drinking water systems	$24,000,000	$60,000,000	60		Source: 2007 Compliance Reports (considered low because they are known to under-report.	$400,000	$1,000,000	Source: Paul Boyer, Self-help Enterprises
Domestic well owners	$5,615,734	$12,011,486	16,713	16,713	Assuming 10% of wells are above MCL (GAMA), and 60% of those have agriculture as a source of contamination.	$336	$719	Low range source: Culligan (2010), High range source: EPA (2002)
Users of public water systems	$10,553,542	$17,589,237	161,074	268,456		$65.52		Source: Pacific Institute Nitrate Survey (2010)
TOTAL	$40,169,276	$89,600,723						

It should be noted that, even with our proposed revisions to the economic analysis, a lack of data will continue to severely limit the economic impact assessment. As the Technical Memo makes clear, much of the data necessary for understanding the economic impact of the current program and proposed alternatives is not available. Monitoring of ground water quality in California is neither systematic nor comprehensive, making the extent of contamination and the identification of sources extremely difficult. Ironically, this is in part due to the current regulations under the ILRP. In a strange twist, we observe that only if an ILRP alternative were implemented would there be some of the data needed to analyze the full costs of the current program.

115-2 cont'd

Chapter 1, Analytical Objectives and Approach

115-4

To fully assess the costs of the current ILRP and proposed alternatives, the analytical approach of the Economic Analysis must include several key costs, including the costs to all affected public drinking water systems, drinking water consumers, and private well owners. A rich literature has documented the range of potential costs. The USDA report, *The Benefits of Protecting Rural Water Quality, An Empirical Analysis*, provides a succinct summary of the types of benefits from improving rural water quality (see Table 2).

115-4 cont'd

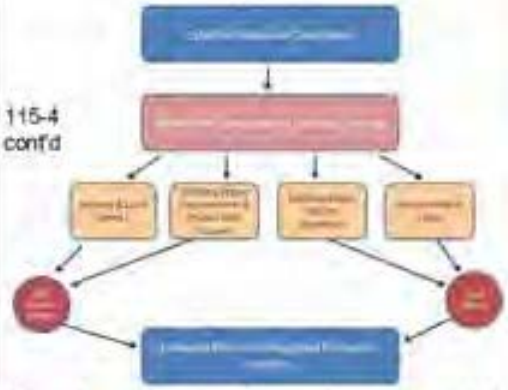
Table 2. Types of benefits from improving rural water quality[1]

Use Value	In-stream services	Recreational uses, such as swimming, boating, and fishing Commercial/municipal uses, such as fishing, navigation, and water storage facilities
	Consumptive services	Drinking water from municipal water systems and private wells Irrigation and other agricultural uses
	Aesthetic value	Near-water recreation, such as picnicking and sightseeing Property value enhancement
	Ecosystem value	Preservation of wildlife habitat and promotion of ecosystem diversity
Nonuse Value	Vicarious consumption	Value place on enhanced use of clean water by others
	Option value	Desire to preserve opportunity to enjoy clean water at some future time
	Stewardship value	Protection of environmental quality and desire to improve water quality for future generations

115-5

The analytical approach in the ILRP Technical Memo focuses solely on the costs to Growers and Land Owners, and Administrative Costs of the Program. While an assessment of each of the above types of benefits as they relate to the ILRP may not be necessary, we urge staff to at least integrate the costs related to *consumptive services, given the profound implications for public health and quality of life of millions of California residents impacted by this program*. To do so, the analytical approach should be revised to include the following question: *What are the costs to water system operators, well owners and drinking water consumers due to agricultural activities potentially*

115-4 cont'd



115-6

[1] United States Department of Agriculture Economic Research Service (1995). *The Benefits of Protecting Rural Water Quality, An Empirical Analysis*. Accessed September 20, 2010 from http://www.ers.usda.gov/Publications/AER701/

regulated under long-term ILRP alternatives?

Addressing this question would allow staff to estimate savings associated with ILRP alternatives, such as the potential savings to drinking water systems no longer having to invest in nitrate mitigation. These savings are both fiscal, such as in the case of grants made by the California Department of Public Health to mitigate nitrate contamination of ground water, and they are economic, such as the case of consumers with unsafe drinking who may no longer have to purchase bottled water in addition to paying flat fees for tap water. Figure 1 here represents a revised version of the diagram of the analytical approach to the economic analysis on page 1-1.

115-4 cont'd

This approach to assessing costs and benefits was undertaken in the 2002 U.S. EPA analysis, *The Benefits of Reducing Nitrate Contamination in Private Domestic Wells Under CAFO Regulatory Options*. For each regulatory option being considered, the EPA reported the Expected Reductions in Number of Households with Well Nitrate Concentrations above 10 mg/L. In this case, staff used existing research on Willingness to Pay for such drinking water quality improvements to estimate the economic benefit to these households.[6] In the following section we adapt this methodology to estimate the costs of the ILRP to drinking water consumers.

ILRP Costs to Domestic Well Owners

115-7

According to the Groundwater Ambient Monitoring & Assessment Program, there are an estimated 600,000 private domestic wells in California and 10 percent of those tested have nitrate levels above the legal limit.[7] According to the USGS, there is a population of 813,390 in Central Valley counties who rely on domestic wells (See Table 3).[8] The percentage of wells contaminated per county in the Central Valley ranged widely, from less than 1% in Tehama to 40% of those tested in Tulare County. The extent to which contamination originates from agricultural run-off is not known, in part due to a lack of systematic monitoring of run-off and ground water quality. Most researchers agree that agriculture is the leading source of nitrate contamination of ground water in the Central Valley.[9]

115-8

Table 3. Population Served by Domestic Wells in Central Valley Counties

County	Total Population	Population served by domestic wells	As percentage of total population
Butte	203,170	38,490	19%

[6] U.S. EPA (2002) *The Benefits of Reducing Nitrate Contamination in Private Domestic Wells Under CAFO Regulatory Options*. Accessed online September 20, 2010 from http://www.epa.gov/ogwdw/publicwells/benefit_nitrate.pdf

[7] State Water Resources Board, Groundwater Ambient Monitoring & Assessment Program (2010) *Summary of Detections Above a Drinking Water Standard: GAMA Domestic Well Project*. Accessed on September 20, 2010 from http://www.swrcb.ca.gov/gama/domestic_well.shtml

[8] USGS (2000) Estimated Use of Water in the United States County-Level Data for 2000. Online at http://water.usgs.gov/watuse/data/2000/index.html

[9] United States Geological Survey (1995) *Water Quality in the San Joaquin-Tulare Basins, California, 1992-93*. Accessed on September 20, 2010 from http://pubs.usgs.gov/circ/circ1159/circ1159.html

Colusa	18,800	7,060	38%
Fresno	799,410	41,730	5%
Glenn	26,450	12,260	46%
Kern	661,650	76,050	11%
Kings	129,460	20,990	16%
Madera	123,110	49,070	40%
Merced	210,550	53,140	25%
Placer	248,400	25,920	10%
Sacramento	1,223,500	64,030	5%
San Joaquin	563,600	102,340	18%
Shasta	163,260	25,560	16%
Stanislaus	447,000	85,170	19%
Sutter	78,930	21,310	27%
Tehama	56,040	32,590	58%
Tulare	368,020	103,420	28%
Yolo	168,660	33,460	20%
Yuba	60,220	20,890	35%
TOTAL	**5,550,230**	**813,390**	**15%**

115-8 cont'd

The cost of ensuring safe drinking water to the users of these wells must cover strategies for reducing nitrate levels or accessing an alternative water source. This may include installing treatment technology or a filter, drilling a new well, or buying bottled or vended water. According to Culligan, one of the leading purveyors of filter systems in the Valley, a typical nitrate filter costs $336 per fixture per year including maintenance.[10] Our cost estimate assumes that only 10 percent of the Central Valley population relying on domestic wells have high nitrates. Assuming only 60% of the contamination affecting these 16,713 households have agricultural run-off as a contaminating activity, the costs for each of them to install a Culligan filter total at $5,615,734. In the above-mentioned EPA report on CAFOs, a domestic well owner's Willingness to Pay for nitrate levels being brought down to the MCL is valued at $718.67 per year (inflation adjusted from $583 in 2001 dollars). Using this as the annual cost per household, the annual costs to domestic well owners amount to $12,011,486.

115-7 cont'd

ILRP Costs to Drinking Water Consumers

It has been well documented that households impacted by groundwater contamination incur significant costs to avoid contaminated tap water. A series of studies using the "avoidance cost" method—that is, "assessing the costs of actions taken to avoid or reduce damages from exposure to groundwater contaminants"—have demonstrated that household responses to contamination of domestic water supplies is far from inexpensive and that these expenditures must be taken into consideration in valuing the costs and benefits of groundwater protection.[11,12,13] To avoid nitrate-

115-9

[10] Culligan (2010) Personal Communication 9/17/10
[11] Abdalla, Charles W. *Measuring Economic Losses from Ground Water Contamination: An Investigation of Household Avoidance Costs.* Water Resources Bulletin Vol. 26 No. 3, 451-463.
[12] Collins, Alan R. and Scott Steinback (1993). *Rural Household Response to Water Contamination in West Virgina.* Water Resources Bulletin Vol. 29 No. 2, 199-209.
[13] Laughland, Andrew S., Musser, Lynn M., Musser, Wesley N., and James S. Shortle (1993). *The Opportunity Cost of Time and Averting Expenditures for Safe Drinking Water.* Water Resources Bulletin Vol. 29 No. 2, 291-299.

contaminated tap water, households must install costly reverse osmosis filters, order domestic water service to their home, or buy gallons of vended and bottled water for consumptive household uses such as cooking and drinking.

In the summer of 2010, Pacific Institute conducted a survey of 21 out of the 28 households connected to the community water system, Beverly Grand Mutual Water Company, which was in violation of the 45 mg/L MCL for nitrate concentration. Respondents were asked a series of questions about household socioeconomic and demographic information, perception of contamination, household water use, and expenditures on tap water, filters, and alternative sources of water (such as vended and bottled water).

Preliminary analysis of the survey shows that households that are aware of contamination in their water and that drink and cook with exclusively non-tap sources of water pay on average 77% more than they would have had they solely used tap water for these consumptive household uses. On average, non-tap water expenditures for these households constituted 2% of household income, although some households spent up to 4.2% of their income on bottled and vended water for use in the home. On average, households that exclusively use non-tap sources of water for cooking and drinking spend $5.46 per person per month on vended and bottled water for use in the home (although some households spent up to $14.08 per person per month). This suggests that, collectively, the 1.3 million people connected to water systems with nitrate-contaminated groundwater supplies between 2005-08 spent approximately $7.1 million per month, or $85.2 million per year to avoid nitrate-contaminated water. How much of these costs of nitrate contamination can be attributed to agriculture is impossible to know without effective ground water monitoring, so we are left with an upper figure on the costs associate with the ILRP. A GIS analysis of land use surrounding the systems in violation would allow staff to identify systems in close proximity to agricultural land uses, a methodology regularly employed by researchers.

115-9 cont'd

Costs to Public Water Systems

The costs of nitrate contamination of ground water extend to all public water systems with high nitrates and agriculture as a contaminating activity. The Economic Analysis in its current form only looks at the impact on community water systems, one subset of public systems. This analysis should be expanded to include other types of public water systems.

The assumption of the size of wells that small community water systems must replace is also flawed. Our understanding is that even small water systems must install wells that pull 2,000 gallons per minute due to fireflow requirements. This may explain why the cost estimate from Newkirk and Dewby is significantly lower than the costs of projects in applications for proposition 50 and 84 funding. We suggest you use the latter figures and abandon the Newkirk and Dewby figures for this reason.

115-10

Even with these corrections, the resulting cost estimates will represent a lower bound because of several categories of costs that are not quantifiable. These include the costs of treatment for health problems resulting from exposure to agriculture-related nitrates. They also include the future costs to water systems that may no longer have the option of simply digging a new well. Several systems have reported that they dug deeper wells to avoid nitrates only to then find

ground water with high arsenic levels and, as a result, incurred the additional costs of treatment for arsenic.

115-10 cont'd

Regional Economic Impacts

With the same rational that the economic analysis expects costs of the ILRP to agricultural businesses to have a ripple effect on the region, costs to well owners, public systems, and water consumers will have indirect economic effects. The current economic analysis excludes costs to community water systems from the analysis of regional economic impacts, removing them as a factor in the analysis of regional economic impacts. Although the limited data linking nitrate contaminated drinking water to agricultural activities constrains such a quantitative analysis, excluding them from the modeling relegates these significant effects to being inconsequential in the comparison of program alternatives.

As the technical memo states,

> Because businesses in a local economy are linked together through purchases and sales of goods and services produced in the region, an action that has a direct effect on one industry is likely to have an indirect effect on firms providing production inputs and support services, as the demand for their products also changes. As household income is affected by the changes in regional economic activity, additional induced effects are generated by increased household spending.

115-11

Similarly, changes to agricultural run-off brought about by the Program will have an economic ripple effect on drinking water consumers, domestic well owners, water system operators, and water system funding agencies, which in turn will have indirect effects on local economies.

In current form, the analysis of Regional Economic Impact focuses on the "value of agricultural production and spending to comply with program requirements and to implement management", and measures impact with economic indicators for Total industry output, Personal income, and Employment. This implies that the only changes in economic conditions resulting from the IRLP will be limited to within the farm properties and related businesses. Significant economic gains could also result for local drinking water users, water agencies, and local governments, among others. These gains will have a multiplier effect as they free up revenue for increased spending in other areas. As household expenses on avoiding nitrate-contaminated water are reduced, disposable income increases and allows for a rise in consumer spending. Public revenue currently dedicated to drinking water improvements necessary because of nitrates could be invested in public services or infrastructure projects, both of which would contribute to employment and profits.

Recognizing the Trend of Increasing Ground Water Nitrate Levels

The current economic analysis and Draft EIR assume that future nitrate levels in ground water will mirror current levels, but data suggests otherwise. Our analysis of the data shows that nitrate levels are increasing in a third of locations, and the number of wells where nitrate levels exceed

115-12

federal health standards is likely to double in the next ten years. Looking at wells monitored by GAMA in Kern County, we carried out a regression analysis to estimate the number of wells currently under the MCL that can be expected to rise above this threshold in the next ten years. Using a database including all nitrate measurements from 1980 to present in the GAMA database for Kern County, we selected wells that had ten or more samples recorded (678 wells), and fit a trend line of nitrate concentration versus time, using ordinary least squares regression. We used the uncertainty associated with this relationship to calculate the percent likelihood of exceeding the 45 mg/L threshold in 2010, 2015, and 2020.

115-12 cont'd

Table 3. Trend analysis of nitrate levels in Kern County wells

Groundwater Basin	Total number of Wells	Number of wells with greater than 75% likelihood of exceeding MCL in 2010	Number of wells with greater than 75% likelihood of exceeding MCL in 2015	Number of wells with greater than 75% likelihood of exceeding MCL in 2020
Antelope Valley (6-44)	29	0	0	0
Brite Valley (5-80)	4	0	0	0
Castac Lake Valley (5-29)	6	0	0	0
Cuddy Canyon Valley (5-82)	5	0	0	0
Cuddy Ranch Area (5-83)	4	0	0	0
Cuddy Valley (5-84)	6	0	0	0
Cummings Valley (5-27)	14	2	2	3
Fremont Valley (6-46)	11	0	0	0
Indian Wells Valley (6-54)	36	0	0	0
Kern River Valley (5-25)	55	4	7	8
Mil Potrero Area (5-85)	2	0	0	0
No Basin Found	67	1	2	2
San Joaquin Valley - Kern County (5-22.14)	417	24	37	50
Tehachapi Valley East (6-45)	3	0	0	0
Tehachapi Valley West (5-28)	18	2	2	2
Walker Basin Creek Valley (5-26)	1	0	0	0
TOTAL	**678**	**33**	**50**	**65**

115-13

Based on our analysis, we found 33 wells where the likelihood of exceeding the MCL is 75%. In 2015, this increases to 50 and in 2020 rises to 65 (See Table 3). This is almost a doubling of the number of wells with nitrate levels above the MCL by 2020, an increase from 5% to 10% of monitored wells. Based on current trends, we estimate that the number of wells exceeding the MCL in Kern County will double in the next ten years.

This trend of increasing nitrates in one of the counties with the most intensive agriculture, combined with the significant numbers of water systems and users and private well owners encountering nitrate-contaminated ground water points to the need for a systematic approach to monitoring and mitigating this contamination at the source. Additional costs that we are not able to quantify include those related to health outcomes caused by exposure to nitrates – including health services and pain and suffering – as well as the costs to ecosystems. A recent study

115-12 cont'd

looked at the effect of nitrate levels on California ecosystems, and found that 35% of the state's conifer forests, chaparral and oak woodlands were "at risk of major vegetation type change" due to nitrates.[14] This will undoubtedly have an effect on local economies and quality of life. 115-12 cont'd

Despite the limitations of our economic analysis due to limited data availability, there is no question as to the existence of significant costs resulting from regulated by the ILRP. Without an analysis of how the current program contributes to these costs and their indirect effects, and a comparison of the program alternatives' impact on these costs, the Board will not have the information it needs to make an intelligent and balanced decision on the program's future.

Thank you for considering these comments, please contact us with any questions or requests for additional information.

Sincerely,

Eli Moore, Eyal Matalon, and Matt Heberger

Pacific Institute

654 13th St

Preservation Park

Oakland, CA 94612

(510) 251-1600

[14] Fenn, M.E., et al. (2010), Nitrogen critical loads and management alternatives for N-impacted ecosystems in California, *Journal of Environmental Management*. Doi:10.1016/j.jenvman.2010.07.034

115-14

Appendix 1

Public Water Systems in the San Joaquin Valley with ≥ 1 Nitrate Violation, 2005-2008

System Name	Population Served	Number of quarters with nitrate violations
AKIN WATER CO.	50	1
Arvin Community Services Dist	11,847	1
ATWATER, CITY OF	28,100	1
BEAR VALLEY CSD	7,400	3
BEVERLY-GRAND MUTUAL WATER	108	10
BROCK MUTUAL WATER COMPANY	500	3
BUEHNER HOUSES	25	1
BUEHNER WATER SYSTEM - WEBER COMPLEX	100	1
California Water Service – Stockton	171,777	5
CANYON MEADOWS MUTUAL WATER	325	1
CENTRAL WATER CO.	170	1
CENTURY MOBILE HOME PARK	50	3
Ceres, City of	40,943	12
CHERRY LANE TRAILER PARK	100	5
City of Modesto, DE East Turlock	500	1
City of Modesto, DE Grayson	1,100	12
Corcoran, City of	25,528	3
COUNTRY WESTERN MOBILE HOME PARK	120	3
CWS – LAKELAND	789	16
CWS - North Garden	15,998	6
Del Oro River Island Serv Terr #1	975	12
Del Oro River Island Serv Terr #2	87	8
Denair Community Services District	3,225	2
Dinuba, City of	19,297	1
DUCOR CSD	850	1
EAST OROSI C.S.D.	106	5
EAST WILSON ROAD WATER COMPANY	35	6
EDMUNDSON ACRES WATER SYSTEM	550	3
EL MONTE VILLAGE M.H.P.	100	5
EL NIDO MOBILE HOME PARK	250	6
ENOS LANE PUBLIC UTILITY DISTRICT	250	2
Fairview Water Company, LLC	100	9
FAIRWAYS TRACT MUTUAL	250	4
FAWCETT FARMS	50	1
FCSA #32/Cantua Creek	230	3
FCWWD #42/Alluvial & Fancher	257	3
FRESNO, CITY OF	457,511	15
GOOSELAKE WATER COMPANY	102	2
GREEN RUN MOBILE ESTATES	100	7
HARVEST MOON MUTUAL WATER CO	180	1
HILLVIEW WATER CO-RAYMOND	243	12
HILMAR COUNTY WATER DISTRICT	5,000	2

115-14
cont'd

Ivanhoe Public Utility Dist	4,474	12
Josephina and Enrique Water System	32	2
KERN VALLEY MUTUAL WATER	100	1
LEMON COVE WATER CO	200	7
Lindsay, City of	11,185	1
LSID – Tonyville	400	14
Madera County M.D. #10A - Madera Ranchos	2,255	2
MALAGA COUNTY WATER DISTRICT	900	2
MANTECA, CITY OF	66,000	2
MD#43 MIAMI CREEK KNOLLS	100	3
MD#85 VALETA MUTUAL WATER COMPANY	45	3
MERCED, CITY OF	80,453	1
MODESTO MOBILE HOME PARK, LLC	200	6
Modesto, City of	212,000	8
MOJAVE PUD	3,900	1
MONTEREY PARK TRACT COMMUNITY SERVICE DI	186	3
MOUNTAIN MESA WC	1,035	3
NORSEMAN M.H.P.	70	1
OASIS PROPERTY OWNERS ASSOCIATION	80	1
Orosi Public Utility District	7,318	1
PATIO VILLAGE MOBILEHOME PARK	75	2
PATTERSON, CITY OF	20,875	2
Poplar Comm Service Dist	2,200	4
Porterville Developmental Center	2,576	8
Porterville, City of	51,467	1
RAINBIRD VALLEY MUTUAL WATER COMPANY	188	2
RIPON, CITY OF	14,575	8
RODRIQUEZ LABOR CAMP	110	3
San Joaquin County-Raymus Village	1,086	1
SAN JOAQUIN ESTATES MUTUAL	220	6
SEVENTH STANDARD MUTUAL	110	3
SIERRA BREEZE MUTUAL WATER COMPANY	144	3
SIERRA MUTUAL WATER CO	39	2
SON SHINE PROPERTIES	400	1
SOULTS MUTUAL WATER CO.	100	13
STALLION SPRINGS CSD	4,300	2
Strathmore Public Util Dist	1,904	14
SUNNYSIDE CONVALESCENT HOSP	116	1
TEHACHAPI, CITY OF	7,218	11
Terra Bella Irrigation District – TBT	2,340	15
TOOLEVILLE WATER CO.	300	4
TRAVER WATER LLC	500	1
TRIPLE R MUTUAL WATER CO.	400	13
VALLEY VIEW ESTATES MUTUAL WATER CO	81	8
Vaughn WC INC	27,150	1
Wasco, City of	16,657	3
WATERTEK - GRANDVIEW GARDENS	350	7
WESTLAKE VILLAGE M H P	350	1
WHEELER FARMS HEADQUARTERS	25	15
WILSON ROAD WATER COMMUNITY	72	1

115-14
cont'd

ZONNEVELD DAIRY	141	1
Total (93 Systems)	1,342,280	430

3.3.19.1 Responses to Letter 115

115-1

See Comment Letter 123, Response 105.

115-2

See Master Response 17.

115-3

No response needed.

115-4

See Master Responses 8 and 17.

115-5

No response needed.

115-6

See Master Response 17.

115-7

See Comment Letter 123, Response 81.

115-8

No response needed.

115-9

The Central Valley Water Board shares the concern regarding the need for clean drinking water. Objective 1 in the development of the Long-term ILRP is to restore and/or maintain appropriate beneficial uses established in Central Valley Water Board Basin Plans by ensuring that all state waters within the Central Valley meet applicable water quality objectives including drinking water standards. However, the cost of remediation of polluted domestic groundwater supplies is not attributable to implementation of the Long-term ILRP.

115-10

See Comment Letter 115, Response 9.

115-11

See Master Response 17. Also see Comment Letter 104, Response 83 and Comment Letter 96, Response 18.

115-12

See Comment Letter 123, Response 81 and Comment Letter 6, Response 1.

115-13

This comment refers to a table; no response needed.

115-14

This comment refers to a table; no response needed.

3.3.20 Letter 43—Pesticide Watch, Dana Perls, Community Organizer

Comment Letter IL43

Pesticide Watch Education Fund

369 Broadway, Suite 200
San Francisco, CA 94133

415-622-0036 (ph)
415-622-0016 (fx)

info@pesticidewatch.org
www.pesticidewatch.org

Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

September 22, 2010

Dear Ms. Smith,

In response to the Modesto public information hearing on Sept 9, I am formally submitting my comments about the Draft EIR for the Irrigated Lands Regulatory Program for ICF's incorporation. I am writing on behalf of Pesticide Watch Education Fund, a state-wide non-profit which advocates on behalf of pesticide reform, and responsible governmental regulations for pesticide use.

We applaud the Regional Water Quality Control Board's focus on groundwater contamination. However, we believe this program needs to be stronger with its pesticide monitoring and reduction plans, and are concerned that this program, as it stands, is not strong enough to reduce pesticide pollution of the San Joaquin Valley's water resources. 43-1

This new program must ensure that the basic information on fertilizer and pesticide application on farms is shared by the Department of Pesticide Regulation (DPR). This information is necessary to establish a baseline to evaluate how much pesticide contamination there is and how to measure improvements in water quality and reductions in application. It will also help evaluate which farms are complying. However, there may currently not be an efficient mode of communication whereby this information will be shared. 43-2

The areas of the Valley which are already at high risk of groundwater contamination should have farm management plans which address how they will avoid exacerbating the pollution problem. This means farmers should receive assistance from groups such as UC Cooperative Extension to assess what type of treatment their farm actually needs, and how to use integrated pest management practices appropriate for their particular crop. 43-3

The program needs to have much stronger enforcement plans. We need to ensure there are concrete enforcement mechanisms which will help with stronger results. 43-4

Lastly, the proposed timeline for groundwater quality improvement is too long. People who are drinking contaminated groundwater cannot wait another ten years to see improvements.

This program EIR needs to work from the knowledge that already thousands of people in the Central Valley cannot use their local groundwater because of contamination from agriculture. The EIR needs to highlight this to ensure there are safeguards in place for farmers to be responsible for preventing further contamination, especially in areas where water is still safe. 43-5

Thank you for incorporating these suggestions into the Draft EIR. If you have any specific questions, please contact me at dana@pesticidewatch.org or 925-705-1074.

Sincerely,

Dana Perls, MCP, Community Organizer

cc: Paul Towers, Pesticide Watch

3.3.20.1 Responses to Letter 43

43-1

The comment's support will be considered in development of the Long-term ILRP. See Comment Letter 47, Response 2 and Comment Letter 5, Response 1.

43-2

See Comment Letter 99, Responses 1 and 40; Comment Letter 123, Response 67; Comment Letter 114, Response 110; and Comment Letter 96, Responses 11 and 12.

43-3

See Comment Letter 111, Responses 33 and 34 and Comment Letter 123, Response 5.

43-4

See Comment Letter 40 Response 2 and Comment Letter 123, Response 20.

43-5

See Comment Letter 14, Response 1; Comment Letter 111, Response 14; and Comment Letter 95, Response 2. Also see Master Response 7.

3.3.21 Letter 113—Sacramento Amador Water Quality Alliance, Rebecca Waegell, Coordinator

Comment Letter IL113

September 23, 2010

ILRP Comments
Ms. Megan Smith
ICF International
630 K Street, Suite 400
Sacramento, CA 95814

SUBJECT: Comments on the Draft Program Environmental Impact Report for the Central Valley Irrigated Lands Regulatory Program

Dear Ms. Smith:

As the coordinator for the Sacramento Amador Water Quality Alliance I would like to provide the following comments on the Draft Programmatic Environmental Impact Report (PEIR) for the Long Term Irrigated Lands Regulatory Program (LTILRP).

The PEIR does not analyze the preferred alternative. Given that the preferred alternative appears to have been developed by taking portions of the five alternatives it is difficult to assess the actual impact that the program might have. This concerns me given the broad range of economic impacts of the 5 alternatives. Why wasn't the preferred alternative analyzed as part of the PEIR document? 113-1

The PEIR indicates that habitat loss from the implementation of management practices would be significant, but implementation of BI0-MM-2 would reduce this impact to less than significant. Who would be responsible for paying for the cost of mitigation? Was this included in the economic analysis and if not, why not? 113-2

The Economic Analysis indicates that field crops, grain, hay, irrigated pasture and rice will suffer the greatest losses of acreage due to implementation of the LTILRP. These particular types of irrigated cropland have significant habitat benefits for a number of bird species including State-listed Swainson's hawk and Greater Sandhill crane and numerous migratory waterfowl covered under the Migratory Bird Treaty Act. Loss of agricultural lands was not analyzed in Chapter 5: Environmental Impacts and Mitigation Measures. Why was this impact not analyzed? 113-3

The Staff Report identifies extensive water quality monitoring and protection programs already in place. Additional monitoring seems redundant and unnecessary. We would encourage the Board to utilize existing data and only require additional monitoring when all other data sources have been reviewed and data gaps clearly identified. 113-4

We encourage the adoption of Alternative 2 as the most cost effective means of achieving improved water quality. We also support the views of the Sacramento Valley Water Quality Coalition, and Somach, Simmons and Dunn. 113-5

Sincerely,

Rebecca Waegell
Coordinator
Sacramento Amador Water Quality Alliance

3.3.21.1 Responses to Letter 113

113-1

See Master Responses 3 and 4.

113-2

See Master Responses 6 and 17. The cost of compliance with state and federal regulatory schemes such as the state and federal Endangered Species Acts and Clean Water Act are the obligation of the grower.

113-3

Impacts to agriculture resources are discussed in the Draft PEIR, Chapter 5, Environmental Impacts and Mitigation Measures, Section 5.10 Agricultural Resources, beginning at page 5.10-5. Also see Master Response 14.

113-4

See Comment Letter 45, Response 20.

113-5

The support for Alternative 2 will be considered in the development of the Long-term ILRP.

3.3.22 Letter 106 and 124—San Joaquin County and Delta Water Quality Coalition, Mike Wackman

Comment Letter IL106

San Joaquin County and Delta Water Quality Coalition

3422 W. Hammer Lane, Suite A
Stockton, California 95219
209-472-7127 ext 125

September 27, 2010

Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

RE: Comments on Draft Program Environmental Impact Report and Staff Recommended Alternative

The San Joaquin County and Delta Water Quality Coalition represents farmers and ranchers within San Joaquin County, Calaveras and Contra Costa County. As a water quality coalition that has been implementing the current Irrigated Lands Regulatory Program (ILRP), we have been able to experience first hand how the ILRP works and what needs to be improved. With this knowledge, we strongly urge the Regional Board to consider adopting Alternative 2 of the Long Term Irrigated Lands Draft Program Environmental Impact Report. This alternative is a workable solution to address water quality issues both in surface water and ground water. 106-1

We are extremely concerned about the staff recommended alternative being presented as the preferred alternative. This alternative puts extraordinary burdens on agriculture without truly addressing water quality. 106-2

The following are some major issues that could be extremely detrimental to agriculture in San Joaquin County, Contra Costa County, Calaveras County and the Delta.

1. **The assumption by the Regional Board that all irrigation is a discharge of waste thus causing the degradation of groundwater or surface water regardless of soil and/or climatic conditions**

The assumption in the staff recommended alternative that the act of irrigating a crop is considered a discharge to groundwater thus causing the degradation of groundwater is not provable or plausible in many areas of the State. Many areas throughout the state are irrigated and do not cause a degradation groundwater or transport constituents of concern to the groundwater. While a blanket determination that all irrigated agriculture creates a discharge of waste may be convenient for regulatory authority purposes, it is an inaccurate presumption with no evidentiary support. Presuming all irrigated agriculture creates a discharge of waste simply because some irrigated agriculture may potentially or could possibly affect water quality is entirely inappropriate and does not fall within the Regional Board's authority to regulate only those irrigation practices that result in a "discharge of waste." 106-3

Within the staff recommended alternative farmers and ranchers must prove to the Regional Board that their operation does not create a discharge of waste to the ground or surface water by conducting expensive studies and research. Otherwise, farmers and ranchers would be required to implement expensive and potentially unnecessary management practices. This assumption institutes a guilty until proven innocent within the regulation. Water Code section 13267 authorizes the Regional Board to require reports from those who discharge waste, but requires that the Regional Board "provide the person with a written explanation with regard to the need for the reports" and "identify the evidence that supports requiring that person to provide the reports." In contrast, the Draft Staff Report makes a broad assumption that all irrigated agriculture creates a discharge of waste, subjecting operations to various reporting requirements without providing a written explanation or supporting evidence, even while acknowledging that some of those operations do not create a discharge of waste.

106-3 cont'd

2. **Definition of groundwater to be protected.**

Groundwater is defined as the first encountered groundwater within the DEIR and the staff recommended alternative. In many areas throughout the state the first encountered ground water does not have any true beneficial use. It is assumed in the staff recommended alternative that first encountered groundwater will need to be protected even though there are areas where first encountered groundwater is not and has never been usable water for drinking, municipal or agriculture. Also, the assumption that if a constituent is detected at first encountered groundwater, then that constituent will move downward into the other stratus of the groundwater is not based on scientific evidence of how groundwater moves through the aquifer. Depending on the aquifer, water can move laterally as well as both upward and downwards in the water profile. Also, many aquifers are separated by layers of clay or impermeable layers that prevent the water from the upper aquifer from moving into the lower aquifer and vice-a-versa. So assuming that a detection of a constituent in the first encountered groundwater will move into aquifers being used by domestic or municipal wells thus causing a discharge of waste is not necessary plausible in many areas of the state.

106-4

3. **Duplication of Regulations.**

The Regional Board proposes a new program to regulate groundwater when many programs already exist. Many areas already have or are developing groundwater management plans that address water supply and water quality at the local level. Alternative 2 within the DPEIR has a more common sense approach using local agencies to address groundwater issues. The staff recommended alternative does not address the complexity of groundwater by recognizing the different soils and climatic conditions throughout the state, or even within individual counties. Many organizations have been studying groundwater to determine how and where it moves, the effects of not only pumping but recharge areas and aspects that affect the quality of the water. These programs can be used as a basis to develop programs that can address water quality concerns.

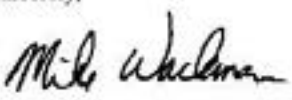
106-5

4. Staff recommended alternative was not fully analyzed or recognized by the DPEIR

The DPEIR analyzes five proposed alternatives. Staff has combined elements of many of these alternatives to develop a sixth alternative, which staff is now recommending for approval. As the recommended alternative, the staff-developed alternative has become the proposed project. However, the DPEIR does not analyze this project *at all*. While the elements of the staff-recommended alternative have been cherry-picked from the other alternatives, the DPEIR does not make any attempt to analyze the environmental impacts that would result if these elements were combined with each other, which is how they would be implemented if the alternative were selected. 106-6

Again, the San Joaquin County and Delta Water Quality Coalition considers alternative 2 of the Draft Program Environmental Impact Report a workable solution to address water quality concerns in the Central Valley. The staff recommended alternative is based on assumptions that have not been scientifically researched or scientifically proven.

Sincerely,



Mike Wackman
San Joaquin County and Delta Water Quality Coalition

3.3.22.1 Responses to Letter 106

Note: Comment Letter 124 is part of Comment Letter 106.

106-1

The support for Alternative 2 will be considered in the development of the Long-term ILRP.

106-2

The Central Valley Water Board has considered carefully the impacts of potential regulatory obligations the ILRP may place upon the regulated community. The extensive public outreach effort undertaken by the Board solicited input from the agricultural community. The program alternatives have been developed in an effort to balance those concerns with the Board's obligations to protect water quality. See Comment Letter 56, Response1.

106-3

See Master Response 12.

106-4

See Master Responses 18 and 12 and Comment Letter 9, Response 14.

106-5

See Comment Letter 45, Response 20. The support for Alternative 2 will be considered in the development of the Long-term ILRP.

106-6

See Master Responses 3 and 4.

3.3.23 Letter 109—San Joaquin County Resource Conservation District, Molly Watkins, President

Comment Letter IL109

SAN JOAQUIN COUNTY
RESOURCE
CONSERVATION
DISTRICT

3422 WEST HAMMER LANE SUITE A STOCKTON, CA 95632 209-472-7127 EXT.125
WWW.SJCRCD.ORG

September 27, 2010

Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

RE: Comments on Draft Program Environmental Impact Report and Staff Recommended Alternative

The San Joaquin County Resource Conservation District (SJCRCD) serves as the lead agency for the San Joaquin County and Delta Water Quality Coalition (Coalition). As such, SJCRCD has been implementing the current Irrigated Lands Regulatory Program (ILRP). We have experienced first-hand how the ILRP works and what should be improved. With this knowledge we strongly urge the Central Valley Regional Water Quality Control Board (Regional Board) to consider adopting Alternative 2 of the Long Term Irrigated Lands Draft Program Environmental Impact Report. This alternative is a workable solution that addresses water quality issues for both surface water and ground water. 109-1

SJCRCD Board members and Coalition contractors and staff are extremely concerned about the Regional Board staff recommended alternative being presented as the preferred alternative. This alternative puts extraordinary burdens on agriculture without truly addressing water quality. 109-2

The following are some major issues that could be extremely detrimental to agriculture in San Joaquin County in particular and the other counties in the Coalition area.

1. **The assumption by the Regional Board that all irrigation is a discharge of waste, thus causing degradation of groundwater and/or surface water regardless of soil and/or climatic conditions** 109-3

The assumption in the Regional Board staff recommended alternative that the act of irrigating a crop is considered a discharge to groundwater thus causing degradation of groundwater is neither provable nor plausible in many areas of the State. Several areas throughout the state are irrigated but do not cause a degradation groundwater nor transport constituents of concern to the groundwater. While a blanket determination that all irrigated agriculture creates a discharge of

waste may be convenient for regulatory purposes, it is an inaccurate presumption with no scientific proof. Presuming all irrigated agriculture creates a discharge of waste simply because some irrigated agriculture might potentially affect water quality is inappropriate and does not qualify under the Regional Board's authority to regulate only those irrigation practices that result in a "discharge of waste."

Within the regional Board's staff recommended alternative, farmers and ranchers must prove that their operations do not create a discharge of waste to the ground or surface water by conducting expensive studies and research. Otherwise, farmers and ranchers would be required to implement expensive and potentially unnecessary management practices. This assumption institutes a guilty until proven innocent provision within the regulation. Water Code section 13267 authorizes the Regional Board to require reports from those who discharge waste, but requires that the Regional Board "provide the person with a written explanation with regard to the need for the reports" and "identify the evidence that supports requiring that person to provide the reports."

109-3 cont'd

In contrast, the Draft Regional Board Staff Report makes a broad assumption that all irrigated agriculture creates a discharge of waste, thus subjecting farming operations to various reporting requirements without providing either a written explanation or supporting evidence, even while acknowledging that some of those operations do not create a discharge of waste.

2. **Definition of groundwater to be protected**.

Groundwater is defined as the first encountered groundwater within the DEIR and the staff recommended alternative. In many areas throughout the state, the first encountered ground water has no true beneficial use. It is assumed in the staff recommended alternative that first encountered groundwater must be protected even though there are areas where first encountered groundwater is not and has never been usable water for drinking, municipal or agriculture. Also, the assumption that if a constituent is detected at first encountered groundwater, then that constituent will move downward into the other stratus of the groundwater is not based on scientific evidence of how groundwater moves through the aquifer. Depending on the aquifer, water can move laterally as well as both upward and downwards in the water profile. Also, many aquifers are separated by layers of clay or impermeable layers that prevent the water in the upper aquifer from moving into the lower aquifer and vice-a-versa. Assuming that a detection of a constituent in the first encountered groundwater will move into aquifers being used by domestic or municipal wells thus causing a discharge of waste is simply incorrect in many areas of the state.

109-4

3. **Duplication of Regulations**.

The Regional Board proposes a new program to regulate groundwater when many such programs already exist. Many groundwater management plans that address water supply and water quality at the local level already exist while others are under development. Alternative 2 within the DPEIR has a more common sense approach using local agencies to address groundwater issues. The staff recommended alternative does not address the complexity of groundwater by recognizing the different soils and climatic conditions that exist up and down the Central Valley,

109-5

2

or even variations within individual counties. Several organizations have been studying groundwater to determine how and where it moves, the effects of not only pumping but recharge areas and aspects that affect the quality of the water. These programs can be used as a basis to develop programs that can address water quality concerns.

109-5 cont'd

4. Staff recommended alternative was not fully analyzed or recognized by the DPEIR

The DPEIR analyzes five proposed alternatives. Staff has combined elements of many of these alternatives to develop a sixth alternative, which staff is now recommending for approval. As the recommended alternative, the staff-developed alternative has become the proposed project. However, the DPEIR does not analyze this project *at all*. While the elements of the staff-recommended alternative have been cherry-picked from the other alternatives, the DPEIR does not make any attempt to analyze the environmental impacts that would result if these elements were combined with each other, which is how they would be implemented if the Regional Board staff alternative is selected.

109-6

Again, the San Joaquin County Resource Conservation District considers alternative 2 of the Draft Program Environmental Impact Report a workable solution to address water quality concerns in the Central Valley. The Regional Board staff recommended alternative is based on assumptions that have neither been scientifically researched nor scientifically proven.

Sincerely,

Molly Watkins
President

3.3.23.1 Responses to Letter 109

109-1

The support for Alternative 2 will be considered in the development of the Long-term ILRP.

109-2

The Central Valley Water Board has considered carefully the impacts of potential regulatory obligations the ILRP may place upon the regulated community. The extensive public outreach effort undertaken by the Board solicited input from the agricultural community. The program alternatives have been developed in an effort to balance those concerns with the Board's obligations to protect water quality. See Comment Letter 56, Response1.

109-3

See Master Response 12.

109-4

See Master Responses 18 and 12 and Comment Letter 9, Response 14.

109-5

See Comment Letter 45, Response 20. The support for Alternative 2 will be considered in the development of the Long-term ILRP.

109-6

See Master Responses 3 and 4.

3.3.24 Letter 88—San Joaquin River Exchange Contractors Water Authority, Steve Chedester, Executive Director

Comment Letter IL88

SAN JOAQUIN RIVER EXCHANGE CONTRACTORS WATER AUTHORITY
CCID • CCC • FCWD • SLCC

Consisting of 240,000 acres on the Westside of the San Joaquin Valley

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541 H Street
Los Banos, CA 93635
(209) 827-8616
Fax (209) 827-9703
e-mail: jtoscano@sjrecwa.net
Website: www.sjrecwa.net

September 27, 2010

Via Email: ILRPcomments@icfi.com
ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, California 95814

RE: ***Comments on the Draft Program Environmental Impact Report for the Central Valley Irrigated Lands Regulatory Program***

Dear Ms Smith:

These are the comments of the San Joaquin River Exchange Contractors Water Authority and its members Central California Irrigation District, San Luis Canal Company, Firebaugh Canal Water District, and Columbia Canal Company (Exchange Contractors) regarding the Draft Program Environmental Impact Report for the Central Valley Irrigated Lands Regulatory Program (DPEIR) the Draft Staff Report, the Recommended Program Alternative (RPA), and the Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (Economic Analysis). The Exchange Contractors are concerned with the fundamental errors made in developing these documents.

We concur and support the comments of the joint agricultural interests and incorporate those comments by reference. However, we would like to highlight two fundamental flaws of the DPEIR. First, the document does not properly define the "No Project" alternative. Second, the document fails to analyze the staff recommended alternative. These two fatal flaws make the DPIER wholly insufficient. Given the nature of these flaws, the DPEIR provides little to no meaningful information for the Central Valley Regional Board to use in considering the development of a long-term irrigated lands regulatory program. 88-1

The DPEIR Relies on an Improper "No Project" Alternative 88-2

The DPEIR's mischaracterization of Alternative 1 as the "No Project" alternative results in an incorrect analysis throughout the document. The DPEIR correctly cites California Environmental Quality Act (CEQA) guidance at Title 14 California Code of Regulations (CCR) Section 15126.6(e)(3)(A): "When the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the 'No Project' Alternative will be the

continuation of the existing plan, policy, or operation into the future." However on pages 1-3 and 3-4 the DPEIR goes on to state "Given the ministerial nature of the extension or renewal of the ongoing waiver, which would allow continuation of the existing program, Alternative 1 is best characterized as the "No Project" Alternative." This statement is completely incorrect and contrary to state law.

The Regional Boards decision to extend or renew the existing waiver is not ministerial. California Water Code (CWC) Section 13269(a)(2) states in part, "A waiver may not exceed five years in duration, but may be renewed by the state board or regional board…." (Emphasis added) Furthermore, CWC 13269(f) states, "Prior to renewing any waiver for a specific type of discharge established under this section, the state board or a regional board shall review the terms of the waiver policy at a public hearing. At the hearing, the state board or a regional board shall determine whether the discharge for which the waiver policy was established should be subject to general or individual waste discharge requirements.

88-2 cont'd

CCR Title 14, section 15369 defines Ministerial as:

> " "Ministerial" describes a governmental decision involving little or no personal judgment by the public official as to the wisdom or manner of carrying out the project. The public official merely applies the law to the facts as presented but uses no special discretion or judgment in reaching a decision. A ministerial decision involves only the use of fixed standards or objective measurements, and the public official cannot use personal, subjective judgment in deciding whether or how the project should be carried out. Common examples of ministerial permits include automobile registrations, dog licenses, and marriage licenses. A building permit is ministerial if the ordinance requiring the permit limits the public official to determining whether the zoning allows the structure to be built in the requested location, the structure would meet the strength requirements in the Uniform Building Code, and the applicant has paid his fee."

Given the discretionary language "may" used in CWC 13269(a)(2) and the language of CWC section 13269(f) requiring the regional board to consider specific policy consideration at a public hearing before renewing a waiver, it is clear that the regional board's decision to renew a waiver is not ministerial but instead requires substantial policy considerations requiring significant personal judgment by the regional board. The DPEIR characterization of the renewal of a waiver as "ministerial" defies common sense and is contrary to state law. Considering that the renewal of the existing conditional waiver would not be a ministerial act, Alternative 1 should be analyzed as an alternative and a true "No Project" alternative should be developed that consists of the regulatory framework that would remain if the existing conditional waiver were to expire at the end of its current term on June 30, 2011.

The DPEIR Fails to Analyze the Staff Recommended Alternative

The comments of the joint agricultural interests document the legal deficiencies in the decision not to analyze the staff preferred alternative and the Exchange Contractors concur with those legal conclusion. However, the practical considerations of ignoring this important analysis also dictate that a more complete analysis must be conducted. If the final environmental impact report is intended to be used by the regional board to determine which regulatory alternative it will adopt it would be very useful to analyze the staff recommended alternative in the EIR. A complete analysis of the staff recommendation would allow the board to make a more informed decision. Accordingly the board should expand the DPEIR to include an analysis of the staff recommended alternative.

88-3

Conclusion

The Draft Program Environmental Impact Report for the Central Valley Irrigated Lands Regulatory Program, the Draft Staff Report, the Recommended Program Alternative, and the Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program are all insufficient and must be revised in order to better inform the regional board regarding the adoption of a long-term irrigated lands regulatory program. The Exchange Contractors request that the DPEIR be revised consistent with the comments of the joint agricultural interests and with these comments. The landowners within our boundaries have fully engaged in the existing conditional waiver program and do not want misguided changes to that program to jeopardize the progress they have made in addressing agriculturally related water quality concerns.

88-4

Very truly yours,

Steve Chedester

Steve Chedester
Executive Director

3.3.24.1 Responses to Letter 88

88-1

The comment's support of previously received comments is noted and will be considered in development of the Long-term ILRP. Also see Master Responses 2 and 4.

88-2

See Master Response 2.

88-3

See Master Response 4.

88-4

This comment urges that the Long-term ILRP build upon the gains achieved by the existing ILRP in addressing agriculturally related water quality concerns. This suggestion will be considered in the development of the Long-term ILRP.

3.3.25 Letter 117—Shasta County Cattlemen's Association, Steve Moller, President

Comment Letter IL117

SHASTA COUNTY CATTLEMEN'S ASSOCIATION
P.O. BOX 492401
REDDING, CALIFORNIA 96049-2401

September 16, 2010

Ms.Megan Smith
630K Street, Suite 400
Sacramento, Ca 95814
ILRPcomments@icfi.com

Dear Ms. Smith,

The Shasta County Cattlemen's Association has reviewed the PEIR for the Long Term Irrigated Lands Regulatory Program. Members have attended scoping meetings as well as the Public Meeting in Chico. Based on the review and the meetings, we offer the following comments.

We are glad that the Water Quality Staff has been listening to the agriculture industry's concerns regarding the costs of continued monitoring of the waters for contamination. The Shasta County Cattlemen have supported water quality and have in fact had tests conducted for e-coli and D.O. prior to the implementation of the current ILRP. A number of our members have installed catch basins or done other improvements to limit any runoff from irrigation directly into the streams.

Although there are some statements in the PEIR indicating that the waters are continuing to be degradated by agriculture operations (Section 3.7.1, page 3-29), we do not believe that to be true, particularly in Shasta County. As stated previously, our members have instituted management practices without any requirements and it would be expected that they will continue to do so without any monitoring program. In addition, in the past 5 years of testing, except for e-coli and DO, no contaminants have been found in Shasta County. The test conducted by UC Davis determined that the e-coli detected were not from agriculture sources. The DO can easily be explained because the tested streams have minimal to no flow during the late spring and summer months, thus DO is naturally going to be low. 117-1

Based upon studies conducted by the Shasta County Cattlemen's Association and the work that agriculture producers have done to enhance the waters in Shasta County, we do not believe a monitoring program is warranted.

If there is going to be a continued requirements for monitoring, then the Shasta County Cattlemen's Association embraces the Staff Recommended Alternative in the PEIR. The one exception that we do not believe is warranted in the Staff Recommended Alternative or any of the other alternatives is for ground water testing in the foothills, as there are no identified water basins, nor any basis that any of the water is contaminated by agriculture operations. Most of our members have well or spring water so they are naturally concerned about their own drinking water safety. If the surface waters do not show contamination, it would be less likely that any ground water would be contaminated, as there is little leaching in those areas. 117-2

In reality, it would take the testing of hundreds of wells to get any idea of contamination. Trying to determine its source would be extremely difficult. 117-2 cont'd

We understand that during the development of the orders, that ground water could be eliminated as a needed test for geographic areas such as the foothills where there are no ground water basins. In addition, during the development of the orders, we believe that testing for e-coli and DO needs to be eliminated until a better protocol is developed to determine the source of the e-coli and streams need to be evaluated as to their tendencies to have low DO naturally. 117-3

Sincerely,

Steve Moller, President
Shasta County Cattlemen's Association

3.3.25.1 Responses to Letter 117

117-1

See Comment Letter 5, Response 1 and Comment Letter 50, Response 8.

The tier system described in Alternative 6 would provide the flexibility to further evaluate areas such as Shasta County, and work to tailor monitoring and management requirements commensurate with the types of waste discharge. In geographic areas that do not have water quality problems, reduced monitoring and management requirements would apply. In areas where agriculture contributes to the water quality problems, additional monitoring and management requirements would be imposed to address and monitor progress towards solving the water quality concern.

117-2

See Comment Letter 100, Response 41.

117-3

See Comment Letter 100, Response 41 and Comment Letter 111, Response 21.

3.3.26 Letter 89—South Delta Water Agency, John Herrick

Comment Letter IL89

SOUTH DELTA WATER AGENCY
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September 27, 2010

Via E-Mail ILRPcomments@icfi.com

ILRP Comments
Ms. Megan Smith
830 K Street, Suite 400
Sacramento, CA

Re: DPEIR Irrigated Lands Regulatory Program

Dear Ms. Smith:

On behalf of the South Delta Water Agency ("SDWA") I am submitting the following comments to the above referenced draft PEIR. On behalf of SDWA, I participated extensively in the development and implementation of the current waiver program. I am on the steering committee for the San Joaquin Delta Water Quality Coalition, and also a board member of the San Joaquin County Resource Conservation District which is the parent organization for that coalition. I have not participated to the same degree in the recent efforts which have led to the PEIR or the accompanying recommended alternative set forth in the Staff Report.

With that said, there are a number of significant concerns/issues associated with the above referenced document. First and foremost is the addition of ground water to the program. Of course the issue of whether or not we seek to maintain and protect good water quality in our groundwater basins is not at issue. Everyone wants to have good water quality in both surface and ground water supplies. This is especially true given that most all users rely on groundwater during times of drought. However, the method of addressing ground water concerns is certainly important. 89-1

As proposed, the addition of ground water to local coalition responsibilities is untenable. Our coalition and the lands contained therein provides good examples as to why this is true. As part of the San Joaquin County Eastern Groundwater Banking Authority (a JPA containing

various interests and the County of San Joaquin), we have spent significant amounts of time and money evaluating the eastern County groundwater basin. Part of that evaluation included new and ongoing testing in cooperation with the USGS. Some of the results of those studies indicated a previously unimaginably complicated system in our area. One sample of a relatively shallow well indicated water with an age of 25,000+ years. Another, within a mile of the first and at a *lower* depth contained water that was less than 40 years old [these are not necessarily the exact numbers from the report, but are representative of what was found).

The conclusion drawn from these data are that understanding the groundwater system presents a difficult if not insurmountable challenge. As applied to the proposed ILP, it indicates that the first step of the program, to characterize the basin, is virtually impossible. How could one develop a system of wells and tests to fully understand an area where neighboring groundwaters have age differences of 25,000 years? How could one determine if agricultural drainage might potentially affect these radically different waters, or even if it currently was affecting them? The answer is that the scope of the testing program would far exceed the current budget of the coalition. Regardless of the Regional Board's mandates and preferences, the end result is that adoption of such a program as outlined in the PEIR and Staff Report would cause our coalition to fall apart as the radical increase in "voluntary contributions" would not be accepted by the paying participants.

89-1 cont'd

Further, the proposed program appears to take a much too naive approach in addressing any groundwater problem. It seems to assume that simple adaptations in application of chemicals and irrigation practices can fully address water quality concerns. This is of course incorrect. Although better oversight and enforcement of application rates should be pursued, a farmer cannot simply decided to apply less fertilizer and still be profitable. The amount calculated to produce a certain yield and maintain plant health has limits; less applied results in less yield. Similarly, the Staff Report seems to assume that a farmer can adjust the amount of water applied to a crop to the point where there is no "excess" water to become tail water or seepage into the groundwater. Such assumptions ignore the physics of crop growth. Although it may be hypothetically possible to apply only such an amount of water in a certain way such that the plant uses all of that water, in practice that can never be done. In many if not most areas, the amount of water applied includes an amount necessary to flush the root zone of constituents such as salts. Applying less results in the buildup of those constituents in the soil to the detriment of current of future yields and crop health.

89-2

Given these sorts of practical limitations, any assumption that BMP's can be identified and implemented are unjustified. This leads to my next comment, dealing specifically with the Delta, a portion of which includes SDWA. Much of the Delta includes shallow groundwater. At the southern extremes, this ground water is just above, at, or slightly below sea level, and connected to the channel flows. The extent to which this groundwater moves, or is flushed out is

largely unknown. The data that does exist indicates that only under high flow events is the "groundwater" flushed out.

In addition, this groundwater's quality is a result of now over 50 years of CVP (with the help of the SWP) impacts on the San Joaquin River. The CVP reduced flows in the River, and by importing millions of toms of salt to the San Joaquin valley, caused high salt (imported, not naturally occurring) concentrations. The result is 50 years of salt buildup in the shallow groundwater in the southern Delta. When surface water is applied, the accompanying salts must be flushed out of the root zone. However, those flushed out salts do not exist the system (again, except in high flow events) and accumulate in the soil just below (most) of the root zones. Typically, the groundwater simply remains at its shallow level rising and falling with the tides, collecting and concentrating various constituents.

Since this ground water is directly connected to the surface waters, it could be described as potentially affecting the waters of the state under the proposed program. As such, characterizing this ground water, and developing a plan to monitor and improve it might be required. Such a result presents the southern Delta farmers with no viable options. Someone else ruined their water supply, which ruined their shallow ground water, but they must now address the problem on their own. Although such a course of action may comport with the SWRCB's efforts to destroy agriculture in the Delta in order to protect exports, it does not result in any improvement in water quality; the goal of the Regional Board.

89-2 cont'd

Hence, the proposed addition of groundwater monitoring not only presents impossible tasks for the coalitions, but as conceived will not result in improved water quality. I assume staff's response will be that in developing WDR's or other regulatory guidelines for each coalition, these issues will be resolved. However, the history of the current waiver program suggests this will not occur. The ability of local users to convince the Regional Board staff that certain groundwater basins can or cannot be characterized, or that they pose no threat to the waters of the state is and will continue to be minimal. That is to say, it is extremely unlikely that our area will be able to convince staff that anything other than monitoring and improvement is required.

In addition to the above concerns, I would like to mention a few other, general concerns. The first is that the proposed program assumes that more "efficient irrigation" can address many water quality concerns. However, the PEIR makes no mention and contains no analysis of how decreases in runoff (or seepage) affects surface flows. Since the San Joaquin River is mostly runoff during many times (especially summers), encouraging farmers to apply less water will result in decreased flows not only on the mainstem, but also in many of the smaller drainages feeding the system. This trade-off may offset the supposed benefits by simply causing streams to run dry.

89-3

Other proposals for BMP's include using cover crops. At a time when the water supplies of the State are insufficient for current and future needs, the use of cover crops should be closely examined, as they by definition result in increased consumption of water. 89-4

I would also like to note that the PEIR does not mention the fish doubling requirements under the CVPIA when it lists federal fishery obligations. I also did not see any discussion of what the current (or proposed) nitrate objectives will be, or how meeting them relates to potential adverse impacts to the Delta food chain. I recall a recent study which concluded that the Delta food chain appeared to need additional nutrients in order to be healthy. I recall that the current San Joaquin contribution to Delta nutrient loads was being siphoned off by the export projects. 89-5

Finally, we would like to join in the comments being submitted on behalf of the other coalitions.

Very truly yours,

JOHN HERRICK

3.3.26.1 Responses to Letter 89

89-1

The expressed concern that coalitions will not be viable under Long-term ILRP alternatives with groundwater requirements is an important issue for the Central Valley Water Board. However, it is clear that irrigated agricultural operations can and have impacted groundwater quality; therefore, the ILRP must implement requirements to protect groundwater.

See Comment Letter 50, Response 14.

89-2

See Master Response 12.

89-3

The Draft PEIR determined that the potential slight alterations in surface water hydrologic patterns that may occur with implementation of one of the six analyzed ILRP alternatives would not result in a significant impact (Draft PEIR, Chapter 5, Section 5.9, beginning at page 5.9-15). Also see Comment Letter 1, Response 53.

89-4

Comment noted.

89-5

This comment will be considered in development of the Long-term ILRP.

3.3.27 Letter 111, 112, and 136—Southern San Joaquin Valley Water Quality Coalition, David Orth, Steering Committee Coordinator

Comment Letter IL111

SOUTHERN SAN JOAQUIN VALLEY WATER QUALITY COALITION

Kaweah River Sub-Watershed
Kern River Sub-Watershed
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September 27, 2010

VIA ELECTRONIC MAIL

ILRP Comments Ms. Megan Smith 630 K Street, Suite 400 Sacramento, CA 95814 Joe Karkoski California Regional Water Quality Control Board, Central Valley 11020 Sun Center Drive, Suite 200 Rancho Cordova, CA 95670-6114	Katherine Hart, Chair Cheryl K. Maki, Vice Chair Julian C. Isham, Board Member Karl E. Longley, Board Member Sandra O. Meraz, Board Member Dan Odenweller, Board Member Robert G. Walters, Board Member California Regional Water Quality Control Board, Central Valley 11020 Sun Center Drive, Suite 200 Rancho Cordova, CA 95670-6114

RE: SSJVWQC RESPONSE TO IRRIGATED LANDS PROGRAM DRAFT PEIR

Dear Ms. Smith, Mr. Karkoski, Board Chair Hart and Board Members Maki, Isham, Longley, Meraz, Odenweller and Waters:

The 2000+ page CEQA alternative document is long, unclear, disjointed, repetitive and has its meaningful components totally camouflaged by voluminous content. The document analyzes the five alternatives that have been identified for over a year and which captured the broad extent of options for the long-term Irrigated Lands Regulatory Program (ILRP). These alternatives have been analyzed, vetted through the interested parties and have become familiar to Board members. The five alternatives have also been evaluated under an economic analysis, unfortunately an analysis with significant flaws, to determine the economic impact of each alternative. The CEQA review did not evaluate what has become the preferred staff alternative. Similarly, the Economic Analysis[1] also did not evaluate the recently developed staff alternative. The staff preferred alternative is actually a misnomer as it was not even referenced in either

111-1

[1] ICF Jones and Stokes, 2010, *Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program.* Prepared for the Central Valley Regional Water Quality Control Board.

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the CEQA or Economic Analysis, but instead was merely attached thereto as an appendix. As discussed below we believe that is improper because the staff is trying to reverse this entire process and focus only on the staff preferred alternative, we will therefore commence these comments addressing the staff preferred alternative and then discuss the Draft Programmatic Environmental Impact Report (DPEIR).

111-1 cont'd

I. Long-Term Irrigated Lands Regulatory Program Staff Report / Recommended Program Alternative

Notwithstanding the extensive environmental review and lengthy period of analysis, the Regional Board staff has recently come forward with what it envisions is their regulatory program to be included under the long-term ILRP. In recent weeks staff has concentrated its efforts on what was first known as a "staff straw proposal." The staff straw proposal has been offered in multiple iterations during its short life and is now presented in ILRP Long-Term Program Development Staff Report (Report) as the Recommended Program Alternative (RPA) – even though it is not one of the five alternatives analyzed under the DPEIR. When it first emerged as a straw proposal, the agricultural, agribusiness, and agricultural water quality coalitions were in strong opposition to this late-arriving alternative, and in particular voiced significant opposition to consideration of this proposal if it was not going to be subjected to a full CEQA analysis. Notwithstanding this strong opposition, Regional Board staff has persisted in their efforts to implement this staff straw proposal by selectively mixing and matching elements from identified alternatives to arrive at the RPA. This approach circumvents CEQA and violates the due process and public notice rights of landowners and agricultural operations subject to the regulations. The law does not allow a lead agency to avoid CEQA analysis by belatedly developing a program alternative by arbitrarily choosing and mixing certain elements from EIR proposed alternatives.

111-2

A. Groundwater

1. Staff seeks to have the long-term ILRP program expand to include not only the existing surface water waiver, but also the very complex area of groundwater. The Report wrongfully asserts that virtually all irrigated agricultural lands, including those that do not drain to surface waters of the state, shall be considered as discharging to groundwater. (Report at p. 143 et seq.) As coalition representatives have pointed out many times, this is simply factually incorrect. By example, lands that are farmed many hundreds of feet above groundwater and use drip irrigation constituting only a few inches of irrigation water during the summer months coupled with annual winter rainfall of less than ten inches have absolutely no percolation or discharge to groundwater whatsoever, much less have the capability of carrying a contaminant from the surface many hundreds of feet to underlying underground water, which itself may be decades or hundreds of years old, and may have originated dozens of miles away.

111-3

a. Attached to these comments are documents from water engineering experts in the southern sectors of the region that point out that there are considerable areas with deep underlying groundwater (hundreds of feet below) which have no reasonable risk from overlying efficiently irrigated crops in this desert region. (See Exhibit I.)

b. This expert evaluation points out that the staff preferred alternative/report predicates this extreme position on several unfounded assumptions, which are either improper or yet to be established. It concludes that the Regional Board should adopt Alternative 2, without such extreme unestablished assumptions and then set about to study the complex area of percolation to groundwater in the Tulare Lake Basin.

111-3 cont'd

2. The incorrect position that all irrigated lands discharge to groundwater leads to the erroneous conclusion that the Regional Board has jurisdiction over all lands and under that alleged jurisdiction the Regional Board has regulatory authority over all irrigators. This assertion of jurisdiction and the requirement that all irrigators must comply with ILRP restrictions ignores the limitations on Regional Board authority to discharges that affect the water quality of waters of the state. (Wat. Code § 13000 et seq.) This assumption of discharge attempts also to shift the burden of proof from the Regional Board to the farm owner or land operator to disprove the erroneous postulation (that all irrigated lands discharge waste to groundwater). This is also inconsistent with the burden expressly outlined in California Water Code section 13267, which states that the Regional Board "shall provide a written explanation of the need for such reports and shall identify the evidence that supports requiring reports." (Wat. Code, § 13267, subd. (b)(1).)

3. A fundamental limitation on the Regional Board's authority to regulate irrigation practices is that the activity must result in a "discharge of waste" that impacts water quality. Simply because it would be "difficult to determine" whether individual irrigated lands are creating a discharge of waste does not eliminate the Regional Board's statutory obligation to only regulate activities that actually create a discharge of waste. The general notion of groundwater vulnerability is not a surrogate to establishing jurisdiction and cannot be used as the basis for (1) assuming discharge to groundwater aquifers or (2) placing virtually all parcels in Tier 2. To do so would be unreasonable because landowners would be faced with the burden of trying to "prove" a negative, which if achievable at all, could only be done at unreasonably great expense.

111-4

4. The RPA indicates that the Regional Board anticipates that the authority to regulate discharges to groundwater would increase their regulatory jurisdiction over an additional two million acres. This is certainly an incorrect number as there are more than two million additional irrigated acres in the Southern San Joaquin

111-5

Valley Water Quality Coalition alone, none of which drain to surface water. This error is indicative of the failure of the Report to accurately address the realities of groundwater or reflect the actual impacts of the RPA. 111-5 cont'd

5. The Regional Board has the regulatory obligations to: (1) advance a factually correct ILRP, and not merely allege improper facts just to satisfy a zeal for regulation; and (2) carry the burden to clarify for those who have had no previous connection to the ILRP, that they may now have an exposure to this new long-term ILRP. The RPA also fails to comply with the Porter-Cologne requirement of notifying the person potentially discharging. (Wat. Code, § 13263(f).) By not developing and publishing evidence or an applicable standard (as to whether groundwater discharges occur) concerning the lands potentially affected under the new proposed long-term ILRP, there has not been effective regulatory notice, nor the required CEQA notice. (Pub. Resources Code, § 21092, subd. (b)(1); CEQA Guidelines, § 15072, subd. (f)(1)-(6).) 111-6

6. In the RPA, first encountered groundwater is identified as the basis by which tiers will be assigned. However, first encountered groundwater is an improper standard to use when evaluating water quality impacts. It should not be used to judge water quality impacts because the term does not accurately reflect groundwater conditions in the Central Valley. First encountered groundwater in most areas is not and has never been of suitable quality for either drinking or agriculture use. 111-7

7. The approach to evaluate groundwater, as proposed in the staff Report, fails to take into account the assimilative capacity of soil. There is considerable treatment of water that occurs as the water makes its way through the soil profile. In many areas it can be reasonably expected that there will be significant dilution and attenuation of constituents prior to reaching any groundwater extraction point. In addition, the Report fails to consider that the assimilative capacities of lands covered under the program varies greatly. Indiscriminately using first encountered zone measurements may produce inconsistent and inaccurate results. Because there is a significant possibility that a dilution of constituents will occur before discharge reaches the level at which it is put to beneficial use, and a substantial likelihood that groundwater data collected at the first encountered zone will bear little relationship to the actual impact on beneficial uses in that area, determining compliance with water quality objectives in the first encountered zone is inappropriate. 111-8

B. Grandfather Status

1. In the many meetings with Regional Board staff and with those responsible for crafting the DPEIR and the RPA, it has been indicated that existing grower participants in the coalitions would be grandfathered in and not have to reapply under the new long-term ILRP. It has also been agreed to in principal that the long-term ILRP would begin with the existing coalitions (should the coalitions continue to be 111-9

willing to implement the ILRP on behalf of the Regional Board). The long-term ILRP program as presented in the RPA does express that current participants would be grandfathered in (Report at p. 144), but it fails to put in writing, what has been stated to us, that the long-term ILRP would commence with the existing coalitions. We find this language to be problematic especially when contrasted with the language that the Regional Board staff believes there will be 8 to 12 new orders. (Report at p. 145) This would not be consistent with the five major coalitions in existence today.

111-9 cont'd

2. In contrast to the treatment of the existing coalitions, the Report recommends that greenhouses and entities with operational spills (water districts) will be jettisoned from ILRP coverage. (Report at pp. 142-156.) This provision will have a major impact on greenhouse operations and it does not appear that these amendments have yet been vetted back to greenhouse operators. Water districts have also been eliminated from coverage under the long-term ILRP without suitable replacement coverage.

111-10

3. The Report also confirms that managed wetlands (including federal refuges) are expressly covered by the ILRP. However, this is a change from how the Regional Board currently deals with refuges. Northern refuges participate in the coalitions and are covered under the existing ILRP, but the southern refuges are not. Regional Board staff should take appropriate steps to have a uniform policy regarding these managed wetlands.

111-11

4. The Southern San Joaquin Valley Water Quality Coalition (SSJVWQC) does not have extensive water quality issues. The Report indicates that there are 686 waste water combination exceedances that have resulted in management plans across the region. The Report discusses total exceedances in the Central Valley and across the Tulare Lake Basin. It points out that there have been only a total of 12 exceedances in the entire Tulare Lake Basin, and only five of those exceedances are attributed to agriculture. Specifically, even though it is the largest of the coalitions, the SSJVWQC has only two required management plans of the 686 across the entire region. The Report also indicates that across the entire SSJVWQC, there is only one water segment having a 303d listing. (Report at p. 20.) This data is supportive of the argument that the current ILRP is working and that coalition participants are entitled to be grandfathered into any new program and that any new regulatory requirements applicable to the Tulare Lake Basin be moderate.

111-12

5. The Report states that most coalition groups have no regulatory authority over members. (Report at p. 9.) This is an inaccurate statement in respect to the SSJVWQC that is largely managed by water districts and water experts. Member water districts have a certain amount of regulatory authority over the delivery of water and discharge of water in their districts. As an important example, our member districts

111-13

have been very aggressive in removing agricultural drains to control discharges. This is the most direct way to control problematic discharge and has been imposed by these districts – this is not a regional requirement, but demonstrates both commitment and the importance of local control. 111-13 cont'd

C. Unreasonable Timelines

1. In respect to timelines, the RPA indicates that (a) within the first three months of adoption there would have to be a declaration of involvement, (b) by 12 months the Regional Board would issue responses or approvals and (c) within 30 months all that are to be required to do so would be enrolled.

2. These are unreasonable timelines. The regulatory expansion to include groundwater issues will require each coalition to struggle with and determine if they can possibly implement the terms of the long-term ILRP. This evaluation process will certainly take more than three months to understand all the issues and ramifications. Thirty months is extremely optimistic for the coalition to be able to convince growers who have never been part of the waiver, that they may have to become part of the ILRP if, in fact, there is a demonstrable potential that their irrigation water may percolate to groundwater. 111-14

3. Implementation of the long-term ILRP will be further impeded and delayed because of the complexity associated with the proposed mix of general waste discharge requirements (WDR) and waivers, a mix between groundwater and surface water regulations, a mix of low and high priority (Tier 1, Tier 2) areas, and the expansion of all these provisions to groundwater. 111-15

4. The Report appropriately indicates that Porter-Cologne authority allows some reasonable degradation of waters if the purpose behind the discharge has an over-riding "maximum benefit to the people of the State." (Report at p. 66.) Clearly, agriculture is an important economic engine of the State and certainly of the Central Valley. Therefore, the significant and important public benefits associated with agriculture need to be factored in when assessing exceedances and developing timelines for achieving water quality objectives. For the reasons stated above, the program implementation timelines and the timelines for achieving objectives included in the RPA are unreasonable. 111-16

D. Internal Inconsistencies

1. The Report indicates that a coalition could be comprised of a mix of high and low priority areas. This mix would be based on exceedances and risks, and could vary independently between surface water and groundwater. Yet, there is one reference that indicates that if there is a mix of high and low priority that the area would 111-17

be deemed "high priority" for all purposes. (Report at p. 151.) This seems to be internally inconsistent, and also inconsistent with the overall notion that low priority areas will have less regulatory rigor.

111-17 cont'd

2. The three year phase-in referenced on page 143 seems to be in direct conflict with other stated timelines of 18 and 30 months. (See point "C" above.)

111-14 cont'd

E. Prohibition of Discharge

1. The Report advances the regulatory option that there would be a "prohibition of any discharge" if a farmer is not appropriately signed up under the ILRP. Such a prohibition is essentially a death penalty not just to that farm operation, but any other farm operation situated down gradient that might rely on tail water from the targeted farm. Consequently, such a prohibition would in most every instance be a very inappropriate remedy. The problem is compounded when associated with the regulatory expansion to groundwater, which raises the likelihood that it is going to take a multi-year process to convince even those growers that may actually have a potential to percolate to closely associated groundwater to sign up under the waiver, and there is very little chance to get those who have no such potential (and are therefore outside the jurisdictional scope of the Porter-Cologne), to subject themselves to this regulation. Consequently, it is easy to anticipate that there are going to be many farmers in this category, particularly relative to groundwater.

111-18

2. This also raises a second issue, how does the Regional Board intend to impose the remedy of a prohibition to discharge if the alleged discharge is by percolation to groundwater.

F. Low Threats to Water Quality

1. The Report indicates on page 149 that there would be a separate category for areas that have no or little impact to state water. Further, the Report references the Existing Conditions Report which expressly indicates that there are areas that have no such impact. This raises the possibility of a no threat or low threat component. It seems that some areas with isolation from surface water and having no reasonable connection to groundwater would qualify under this provision. This would also be true of mountain valley areas with limited agriculture that have either no, or very limited, potential impact to surface water. Therefore, it seems such areas need only advance to the Regional Board very modest monitoring proposals. This is expressly provided in Water Code § 13269(3), which states the Regional Board may waive monitoring requirements for discharges that do not pose a significant threat to water quality.

111-19

G. Tiering

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1. SSJVWQC representatives understand the RPA proposes to categorize lower risk areas as Tier 1 and higher risk areas as Tier 2. Presumably, Tier 2 will be limited only to areas which have management plan requirements. The relevant question is how will the determination between areas be made and what is the process to determine the extent of those categories. In order to be able to appropriately evaluate the RPA, SSJVWQC representatives need the opportunity to sit down with the Regional Board staff and determine the isopleths of what would be regarded as the nitrate groundwater area and the impact areas leading to our groundwater and affecting our two management plans. The designations between Tier 1 and Tier 2 classifications should be clearly defined in the RPA. 111-20

a. The RPA should also be clarified to specify whether general water constituents such as dissolved oxygen, electrical conductivity, pH, and other pathogens possibly unrelated to agricultural irrigation would be utilized to classify lands into Tier 2. We believe they should not be equally treated with contaminant issues. These problems are not directly tied to agriculture and not likely to be resolved by agricultural management practices. 111-21

2. Under the long-term ILRP Prioritization Scheme Example set forth in Figure 23 (Report p. 161), it appears as though very few if any areas will be Tier 1. In the portion of the diagram marked "Area A" it refers to exceedances without distinguishing if these are irrigated agricultural related exceedances, which trigger management plan requirements, as it does in the "Area B" diagram. It simply says "Surface Water Objectives exceeded" and "trending degradation of surface water attributable to." First, this reverses what should be the regulatory burden – that an area be categorized as Tier 1 unless a demonstrated problem moves it to Tier 2. Under this scenario multiple fecal coliform exceedances resulting from a wastewater treatment plant would still compel a determination as a Tier 2 area. 111-22

H. Monitoring

1. Attachment C of the Report deals with groundwater management plans and requires groundwater monitoring and the evaluation of the effectiveness of any management practices that are employed to address an impairment. The RPA, however, does not make any attempt to clarify the level and intensity of such monitoring, nor how monitoring would be designed to track the effectiveness of management practices where problem constituents many have been applied in prior decades. The lack of detail on this major requirement is a fatal flaw in the RPA. 111-23

2. The Report indicates that Tier 2 groundwater monitoring would include establishment of baseline and trend data and evaluation of changes in management practices. The Report is silent on how Regional Board staff believes this could possibly be achieved. In addition, the Economic Analysis omits any discussion of 111-24

the requirement of groundwater monitoring which will involve significant cost. 111-24 cont'd

3. The Report indicates that groundwater monitoring would be required, however, it is completely silent as to what would be considered an acceptable level of monitoring, therefore this provision is impossible to evaluate. Additionally, the Economic Analysis did not evaluate the cost or number of new monitoring wells that would be compelled by this provision. The Report is unclear as to the specifics of groundwater monitoring itself. It indicates that baseline, trend and impairment monitoring would all be required, particularly in respect to nitrates and pesticides, but does not state how this would be accomplished. In order to evaluate both the impact and the cost associated with the RPA, the Regional Board has to bring clarity to these questions regarding the adequacy of existing monitoring in each specific area, and what additional monitoring would have to be implemented. Implementation cannot be left to a "trust us" basis. 111-25

4. The RPA goes on to indicate consequences if there is "insufficient progress." The Report discussed under item 3 above, is unclear as to what would constitute sufficient or insufficient monitoring. The lack of clarity results in an inability to properly assess the economic impacts of the RPA, and further demonstrates the insufficiency of the Economic Analysis. Additionally, the inherent uncertainty does not allow the Report to provide reasonable regulatory notice.

5. Appendix B of the Report suggests that there needs to be some means by which to identify the source of nitrate problems. It expressly recognizes that any leaching of nitrates can be significantly influenced by irrigation methods, rainfall, soil composition, depth of groundwater, etc., and is not exclusively related to the amount of nitrogen applied. These realities need to be reflected in the long-term ILRP requirements. 111-26

6. Appendix B of the Report discusses nitrate impacted areas, and expressly evaluates Kern County (Appendix B at p. B-25). On page 33, it states that only two of 17 wells in Kern County had exceeded nitrate standards, and also indicates on page 34 that the Tulare study of nitrates shows exceedances of the nitrate maximum contaminant level (MCL). The Report also states that the Tulare study is presently being reevaluated. Therefore, further clarification on the impact of these monitoring results is needed.

7. Appendix B on page B-43 sets forth the extreme position that up to 50% of nitrate applications can reach groundwater, but indicates that experts are highly divided in this area, therefore no particular conclusion can be reached. Consequently, this discussion should be deleted from the Report. 111-27

I. State Anti-Degradation Policy

1. The Report references the State anti-degradation policy on page 57, and discusses its application to high quality waters of the State. However, the Report fails to address the many foundational issues associated with the policy before it determines how it will be applied. In place of a meaningful analysis the Report simply states that "[g]iven the complexity of determining baseline quality in the long-term ILRP context…any antidegradation analysis…will assume that at least some of the waters into which agricultural discharges occur are high quality waters because unpermitted degradation has occurred since 1968." (Report at p. 61.) This assumption is conclusory and lacks factual support. 111-28

2. Specifically, the Report implies that application of the antidegradation policy is triggered merely because the long-term irrigated lands program will authorize the continuation of agricultural discharges to surface and groundwater. (Report at p. 63.) However, application of the State's antidegradation policy in this manner is improper. The antidegradation policy is triggered when Regional Board action may cause degradation to high-quality waters. It is not triggered when Regional Board action does not cause degradation.

3. The Report also seeks to apply the best practical treatment or control (BPTC) of a discharge under a WDR. This attempt to force additional regulatory requirements on dischargers fails in application because even though the upper elevation source of some Central Valley waters may be of high quality, the waters receiving agricultural discharges are not high quality waters as the term is used in State Water Resources Control Board Resolution No. 68-16. The Report attempts to redefine "high quality waters" using the concept of "baseline condition." (Report at p. 60.) There is no legal basis for this approach. The Report admits as much when it states the "term 'baseline' is not used in the state or federal antidegradation policies but is a significant concept for application of the anti-degradation law" under the RPA. (Report at p. 60.)

4. The antidegradation policy of the ILRP must be consistent with SWRCB Resolution No. 68-16 in its application to high quality waters of the state. Regulatory requirements concerning discharges to lower quality and impacted waters must reflect a different standard. 111-29

5. Further, even if BPTC of a discharge is required there are limitations to its application. The BPTC approach to pollution control is based on adopting the best technology for pollution control available at a reasonable cost and operable under normal conditions. BPTC is derived from the phrase "best practical control technologies" referred to in Sections 301(b) and 304(b) of the Clean Water Act (which does not extend to agricultural non-point waters). In these sections, best practical control technologies is referred to when discussing the control of point source effluent from private operations. In application, BPTC refers to the best practical control

technology currently available. The staff proposal on page 152 indicates that existing management objectives on Tier 1 lands will be considered as BPTC. Accordingly, The Report needs to clearly define the term and recognize that even though BPTC is the preferred approach, it has significant limitations on its application. 111-29 cont'd

6. The associated tributary rule which has applicability in many other regions of the state has limited application in SSJVWQC area because regional waters are tributary only to the valley floor sinks which are not sources of municipal water. (Water Quality Control Plan for the Tulare Lake Basin at p. II-4.) 111-30

J. Groundwater Management Plans

1. The Report recognizes that in many areas current groundwater quality programs are already in place (e.g., SB 1938, AB 3030, Integrated Regional Water Management Plans (IRWMP), etc.). (Report at p. 88.) However, the Report also calls for new local groundwater management plans to be developed within 18 months. (Report at p. 154). This, like other timelines addressed above in section C, is wholly unreasonable. The SSJVWQC is largely covered by such plans which the Legislature has codified in statute as being the means by which groundwater quality should be addressed. Therefore, the development of new groundwater management plans may be unnecessary in most of the SSJVWQC area. At most, the upgrade of existing plans would be all that is needed to fully conform to any new water quality program. Based on SSJVWQC participant experience in developing SB 1938 and IRWMPs, it is very clear that 18 months is a wholly insufficient time frame. Any Regional Board ILRP should be consistent with these existing provisions of law and be based on local groundwater control and have realistic time frames for compliance. 111-31

2. It remains somewhat unclear if the Regional Board has the authority to go beyond the statutorily created multi-jurisdictional local plans (SB 1938 and IRWMPs) in its water quality efforts. If the proposition holds that the Regional Board does have some additional authority, some of the items discussed immediately below will need to be included as part of the RPA. Any additional provisions required under the long-term ILRP program will certainly take more than 18 months to complete, given the multi-disciplinary and multi-agency steps necessary to make amendments to these existing plans (which took years to develop).

K. Nutrient Budgeting and Irrigation Efficiency

1. The Report states that under certain situations groundwater programs would require nutrient budgeting and irrigation efficiency. (Footnote 60 of the Report, at p. 154.) It is uncertain, whether the Regional Board has the authority to demand specific on-farm practices. The Regional Board is not the agronomic or fertilizer agency of the State as that authority is vested expressly in the California Department of 111-32

Food and Agriculture. The application of fertilizer is a necessary agronomic feature, and is entirely distinct from the dairy program which involves applying a waste product to the land, and, thus, offers a jurisdictional nexus to the Regional Board.

By way of example, the Regional Board is without authority to tell Chevron how to operate a refinery or a high tech firm how to manufacture or clean their equipment. Using the same line of reasoning the Regional Board does not have authority to dictate to a farmer what to grow or how to grow it. The Regional Board's jurisdictional authority starts at the discharge point.

2. Beyond these legal and jurisdictional questions, the Report does not define nor explain how (1) regulatory nutrient budgeting would occur or (2) how irrigation efficiency would be determined or how a particular irrigation practice would be either prohibited or mandated (Report at p. 154). The environmental effects from just these two major uncertain actions in the RPA were not addressed under any alternative evaluated under the DPEIR. Correspondingly, the economic impacts from these major actions may be substantial (hundreds of millions), but were not evaluated whatsoever in the Economic Analysis.

3. In respect to nitrogen, the Report identifies the total tonnage of nitrogen fertilizer applied by agriculture in California. However, this gross number is meaningless without: (1) limiting tonnage to that applied in the Central Valley; and (2) reflecting an appropriate agronomic calculation as to how much nitrogen was taken up by the crops it was applied to across the Central Valley. The Report on page 20, recognizes that there is a long lag time between the use of a soil amendment and its ultimate detection in the event that any is leached into a groundwater aquifer. The Report should delete any discussion of nutrient budgeting as it fails to cite any regulatory authority to regulate nutrient applications and does not even attempt to address any of the CEQA or economic impacts associated with such an action. The economic impacts associated with limiting a farmer's yield on a crop due to nutrient budgeting limitations or irrigation efficiency restrictions has been totally ignored.

4. The Economic Analysis indicates that annual agricultural production in the Central Valley region is approximately $13.33 billion. In 2007 the value of agricultural production in Fresno, Tulare, Kern and Kings Counties alone was $16.07 billion. The overall value of California agriculture in 2007 was $25.83 billion, excluding livestock operations. Again this type of inaccurate statement of facts is indicative of the weaknesses inherent throughout the CEQA documents. (Economic Analysis at p. 3-6.)

111-32 cont'd

L. Agricultural Management Practices

1. The Report indicates that there should be an identification of (1)

111-33

existing agricultural practices and (2) what agricultural practices would have to be amended or enacted in certain areas. (Report at p. 150.) Any farm operation would involve several dozen to hundreds of separate management decisions during the course of the year for each field. Coalitions clearly cannot be obligated to identify the hundreds of thousands of management decisions and management practices that are involved across the millions of acres in each coalition. The scope of management practices should be limited to identification of particular management practices that are directly related to a water quality problem.

111-33 cont'd

M. Compliance Timelines and Enforcement Actions

1. The RPA states that water quality exceedances should all come into basin plan objective compliance within five to ten years. (Report at p. 159). This (like other timelines discussed above in sections C and J) is wholly unrealistic even as to surface water. In areas where issues exist in surface water like dissolved oxygen, pH, pathogens, salinity, etc., and water quality improvement efforts are underway and have been for years, it is unrealistic to assume because the Regional Board creates another program that these issues are going to somehow magically improve under a new specified timeline.

2. The proposal states that if any objectives are not reached within the applicable five to ten year period, then all growers in the coalition would be compelled to prepare individual farm management plans. Such a policy would only be justified if certain conditions were found to exist. First, if it was determined that the individual farmer was directly responsible for causing the impairment. Second, if specific management practices were identified as causing the problems, and those identified practices could be modified to cure the problem. Third, that the required individual farm management plan would be more effective than a collective, coordinated approach through the coalitions. (Report at p. 155.) The RPA apparently makes the assumption that individual farm management plans may be more effective than broader monitoring and management plans with the strength of the coalition behind it. That assumption is not supported in the Report, and likely cannot be supported. Instead, it is apparently offered merely as a retaliatory penalty.

111-34

3. The compliance timelines, as stated above, are problematic overall, but are especially troublesome when dealing with groundwater quality. Groundwater issues are typically decades in the making and may be the result of legacy pesticides, or water constituents such as pH, dissolved oxygen, salinity.

N. Coordination of Existing Programs

1. The proposal states that there should be coordination between the ILRP, diary program, Surface Water Ambient Monitoring Program, Department of

111-35

Pesticide Regulation, etc. (Report at pp. 156-57.) Such coordination is meritorious and has been stressed for years by SSJVWQC, particularly regarding coordination with the dairy program and other Regional Board programs dealing with *Escherichia coli (E.coli)* and fecal coliform. The Regional Board has been reluctant to fully coordinate these programs, and this needs to happen. 111-35 cont'd

2. The Report at page 33 discusses *E.coli*, which has no basin plan objective level. Fecal coliform does have a 200 colonies per hundred milliliters of water objective. There have certainly been pathogen detections in some of the water column samples, but a University of California study indicated that much of the pathogen is not attributable to irrigated agriculture. This point was omitted from the RPA. The RPA also fails to acknowledge that there should be a high level of coordination between other Regional Board programs dealing with these pathogens and the ILRP. 111-36

3. The RPA infers that the bright/clear line between the dairy program and the ILRP is going to be eliminated or significantly altered. The RPA, however, is unclear as to how this will occur, and does not address the confusion that could arise if it is not done properly. 111-37

O. Outside Party Participation

1. The language concerning "other interested parties" (Report at p. 154) appears to improperly open the door for negotiations on surface and groundwater management plans to other uninvolved parties. Management Plans and Monitoring and Reporting Program Orders have historically been approved by the Executive Officer and do not require multi-party negotiations. This language regarding public input also appears on page 155. 111-38

2. The RPA suggests that the public would be involved in determining the Tiering of an area. "Third-party groups and the Central Valley Water Board would identify low and high-priority areas in the development of watershed/area/commodity-specific implementation mechanisms during the 3-year transition period. The Central Valley Water Board intends to use existing information in this prioritization. However, there will be the flexibility for third-party groups and other interested parties to provide additional information during the process." (Report at p. 151) 111-39

3. The Report also appears to indicate that when the coalitions identify their priority areas within the first three years of transition, that there would be public input on those determinations as well. (Footnote 57 of the Report at p. 151.) This type of input is not required under the law and is unnecessary. It will delay and complicate development of required documents and certainly cause even extended timelines to be missed. It may also detrimentally affect participation. 111-40

4. In all of the Regional Board's other programs, individual dischargers are not required to have management plans reviewed periodically by other interested parties. Typically, when dischargers are required to submit special studies or management plans, the plan is submitted for Regional Board review and comment, revised based on Regional Board comments, and then implemented. The same methodology should apply to this program. 111-41

P. Tributary Rule

The Report indicates it will focus on waters that are tributary to areas having aquatic life and would treat these as priorities. Due to the tributary rule, the Report asserts that it would transpose such standards to upper basin waters. The tributary rule was previously discussed above in Section I., but it is noteworthy that this particular reference indicates that this would not involve "agricultural drains". (Footnote 66 of the Report at p. 159.) The Regional Board needs to clarify what is considered an agricultural drain as it applies to this section of the Report and agricultural return flows. 111-42

Q. SQMP/GQMP and FWQMP Requirements

1. Several elements of the proposed requirements for SQMP/GQMPs fail to account for the possibility that irrigated agriculture may not be the predominant source of the identified exceedances. (Appendix D at pp. D-1 and D-3.) The program should state that only if irrigated agriculture is identified as the predominant source of the pollutant discharge should the Surface and Groundwater Quality Management Plan be required to [numbers correspond to subsections in the Regulation] (4) identify practices to address the constituents of concern, (5) evaluate the effectiveness of management practices, (6) describe the grower outreach strategies, (7) track management practice implementation, (8) prepare a monitoring plan to track water quality, and (9) describe a schedule and milestones for the action taken. There is a real possibility that inputs from other point and non-point sources are contributing to the exceedances identified at monitoring sites, and identification of irrigated agriculture as the predominant source of the exceedances should be a prerequisite before any regulatory action is required. 111-43

2. The Report states that at a minimum, plans would describe those practices needed or currently in use to achieve water quality protection. (Appendix D.) We disagree with the use of this as a proper reflection of the applicable standard. The goal of FWQMPs should be to control discharges of pollutants to the maximum extent practicable. This approach is consistent with reasonable protection of water quality and also consistent with reasonable protection of water quality and also consistent with the requirements and standards imposed on municipal stormwater discharges. 111-44

3. Appendix D also includes his very troubling statement: "In addition to the minimum elements described above, the Executive Officer may require 111-45

ground or surface water quality monitoring to evaluate the effectiveness of the practices implemented by the grower." No criteria is discussed as to how the Executive Officer would establish a need for additional monitoring or the basis by which practices would be evaluated. In addition, the DPEIR fails to account for and analyze potential environmental and economic impacts associated with such additional monitoring requirements. As a result, the economics impact assessment greatly underestimates the RPA and its potential impact to agriculture.

111-45 cont'd

R. Summary of Comments on the Staff Preferred Alternative

The RPA (staff proposed alternative) was not properly reviewed as required under CEQA, including its potential economic impacts. Instead it was belatedly included only as an appendix to the Report. This subjects the entire proposal to legal challenge which would result in the CEQA analysis not meeting the court ordered deadline. (See discussion below.) Additionally, there are many specific problems with the above identified components of the staff proposal, which will face challenge if the staff proposal is advanced. The Board should adopt Alternative 2 and avoid these problems.

111-46

II. Draft Programmatic Environmental Impact Report

A. The DPEIR Does Not Describe or Analyze the RPA

1. The DPEIR includes five proposed alternatives. However, it does not include a description or analysis of the RPA discussed in the Report. The RPA apparently combines elements of the five identified alternatives to belatedly develop the Report included only as an appendix, which they are now calling an alternative. The RPA is now the proposed project and must be analyzed. The DPEIR does not make any attempt to analyze the environmental or economic impacts that would result if all of the identified elements were combined with each other, which is how they would be implemented if the RPA were selected.

111-47

2. A draft environmental impact report (EIR) must include a general description of the proposed project's technical, economic, and environmental characteristics. (State CEQA Guidelines, § 15124(c).) The project description must be stable, accurate, and consistent throughout the EIR. "An accurate, stable, and finite project description is the sine qua non of an informative and legally sufficient EIR." (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 193.) "A curtailed or distorted project description may stultify the objectives of the [CEQA EIR] process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance." (*Id.* at pp. 192 93.)

3. The DPEIR does not mention the RPA anywhere in its text. The RPA is only presented in the appendix. In *Vineyard Citizens for Responsible Planning v. City of Rancho Cordova* (2007) 40 Cal.4th 412, the Supreme Court reaffirmed that key pieces of the CEQA analyses cannot be buried in the appendices. Here, the RPA - *the proposed project itself* – is recommended by Regional Board staff for implementation by the Regional Board. This is a blatant violation of *Vineyard*, and it results in serious errors in the environmental analysis. An EIR is required to analyze the environmental impacts associated with any proposed mitigation measures. (State CEQA Guidelines, § 15126.4(a)(1)(D).) Thus, the DPEIR suffers from both substantive and procedural flaws that are fatal.

111-47 cont'd

B. Cumulative Impacts of the RPA Have Not Been Analyzed

1. The RPA is "a conglomeration of elements presented" in the five alternatives that are analyzed in the DPEIR. The RPA was not analyzed, whatsoever, in the DPEIR. Further, no attempt has been made to analyze the effects of the combined components of this alternative. Compounding this error, the DPEIR does not identify "any projects or programs adequately similar in nature, location, and type to result in a meaningful comparative analysis." "A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." (State CEQA Guidelines, § 15130(a)(1).)

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2. In contravention of State CEQA Guidelines section 15130, the DPEIR employs neither a list nor a summary of plans and projections approach to the cumulative impacts analysis. In fact, the DPEIR does not identify a single program, policy, plan, or project to be included in the cumulative impacts analysis. Instead of analyzing the cumulative effects of the project together with other projects causing related impacts, the DPEIR concludes that there are no other projects – and analyzes the cumulative impacts of the project, standing alone. This analysis cannot withstand scrutiny. Other programs and projects that have the potential to affect water quality in the program area include United States Environmental Protection Agency's (EPA) recent action banning pesticide application in certain areas, and numerous pending Nation Pollutant Discharge Elimination System (NPDES) and other permit actions.

C. Alternative 1 Is Not A True "No Project" Alternative

1. The DPEIR asserts that alternative 1 constitutes the "No Project" Alternative, which the DPEIR defines as "full implementation of the present program." This description is inaccurate and misleading. In actuality, Alternative 1 is the "no additional regulation alternative." A "No Project" Alternative is intended to reflect what would happen absent any Regional Board action. In this case, no action results in no waiver program whatsoever. The existing waiver constitutes a Regional Board action just as all of the proposed actions included in the other alternatives of the DPEIR do.

111-49

2. "The no project analysis shall discuss the existing conditions at the time the notice of preparation is published, . . . as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." (State CEQA Guidelines, § 15126.6(e)(2).) When the existing conditions include implementation of a program or rule that will expire unless some affirmative action is taken, the "No Project" scenario must consider the expiration of that program or rule and its associated ramifications. (See, e.g., *Sherwin-Williams Co. v. S. Coast Air Quality Management Dist.* (2001) 86 Cal.App.4th 1258, 1280 [SCAQMD properly defined the "No Project" scenario as "not adopting the proposed amendments to Rule 1113, but instead allowing the expiration of the current product variances for some of the coating categories, and maintaining the current version of Rule 1113 as amended by a 1990 court order"].) In contrast, when an agency must act affirmatively to extend an existing program or rule, that itself is a project that must be analyzed under CEQA. (*Sunset Sky Ranch Pilots Assn. v. County of Sacramento* (2009) 47 Cal.4th 902, 909 [county's decision not to renew a conditional use permit that was expiring is not a project under CEQA, but the renewal of the permit would be].)

111-49 cont'd

3. The lack of an accurate "No Project" Alternative constitutes a fatal flaw for the DPEIR. The "No Project" Alternative is a mandatory component of an EIR. The purpose of this requirement is "to allow decisionmakers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." (State CEQA Guidelines, § 15126.6(e)(1).) In this case, no such comparison is possible because the "No Project" Alternative is fundamentally inaccurate.

D. The Environmental Analysis is Flawed Due to Inaccurate Baseline Conditions

1. The Environmental Setting fails to describe accurately the existing environmental conditions, even at a programmatic level. "Knowledge of the regional setting [of the project] is critical to the assessment of environmental impacts . . . . The EIR must demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed and it must permit the significant effects of the project to be considered in the full environmental context." (State CEQA Guidelines, § 15125(c).) Toward that end, the DPEIR "must include a description of the physical environmental conditions in the vicinity of the project, . . . from both a local and a regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." (Id. at § 15125(a).)

111-50

2. First, the "Existing Setting" chapter is, by its own admission, incomplete. For example, the description of the existing conditions related to surface

water makes no mention whatsoever of the amount of surface water currently being diverted or the amount being used for irrigation by participants in the ILRP. Likewise, there is no indication of how much water is returned to stream systems after agricultural use, and how much of that water is derived originally from groundwater basins or surface water sources. Absent this information about the existing physical conditions, it is not possible to determine whether the long-term ILRP will cause significant impacts on water supplies, stream systems, or the fish, wildlife and plants dependent on those systems.

111-50 cont'd

3. The DPEIR attempts to overcome the gaps in the "Existing Setting" chapter by adding a discussion of environmental setting to each of the impact analyses. This is confusing to the reader because these supplemental discussions of the "existing setting" are not entirely consistent with the description provided in the "Existing Setting" chapter. Moreover, even the supplemental discussions in the impact analyses are improperly truncated.

111-51

4. To the extent the DPEIR relies on the "No Program" Alternative to represent the existing baseline conditions, this is improper in this case. The "No Program" Alternative misstates what will occur absent any Regional Board action. Because neither this nor any of the other attempts in the DPEIR to describe the environmental setting is legally adequate, the EIR lacks any accurate baseline against which to judge the environmental impacts of the proposed program.

111-52

E. The DPEIR Fails to Evaluate the Reasonably Foreseeable Effects of the RPA on the Environment

1. "In evaluating the significance of the environmental effect of a project, the lead agency shall consider direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes in the environment which may be caused by the project." (State CEQA Guidelines, § 15064(d).) "An indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment." (State CEQA Guidelines, § 15064(d)(2).)

111-53

The DPEIR fails in this requirement because the DPEIR acknowledges that irrigation costs would increase under the alternatives analyzed, and result in less water being used, crop patterns may change and some land going out of agricultural production, but it does not analyze the impacts from these changes. It does not consider what impacts will be caused by the reasonably foreseeable result of less irrigation, such as less water returning to stream systems and diminished flows at certain times of year, and less irrigation water reducing the amount of groundwater recharge that would otherwise occur, particularly in the San Joaquin Valley where many of the surface

water delivery systems were built with the intent to increase local groundwater basin recharge.

2. Similarly, the DPEIR acknowledges that the program will result in the conversion of agricultural lands to other uses, but it fails to analyze the reasonably foreseeable impacts associated with that conversion, such as climate change impacts, and conflicts with existing land use regulations and zoning.

111-53 cont'd

3. The RPA cumulative impacts were not analyzed whatsoever. The DPEIR does not analyze the reasonably foreseeable impacts related to nutrient management restrictions which will impact cropping patterns. It also suggests regulatory action to restrict certain irrigation practices (i.e., a 2 acre-foot limit or no row crop irrigation), which would have major environmental, economic and even community impacts. All of these direct and indirect impacts resulting from the implementation of the program must be analyzed in the DPEIR. None, however, was acknowledged whatsoever.

111-54

F. The DPEIR Fails to Address the Long-term ILRP's Potential Impacts on Land Use

1. A draft EIR must "discuss any inconsistencies between the proposed project and applicable general plans and regional plans," including habitat conservation plans and natural communities conservation plans. (State CEQA Guidelines, § 15125(d).) While the DPEIR acknowledges the requirement to evaluate its consistency with General Plans and Habitat Conservation Plans (HCPs), it makes no attempt to analyze these impacts even in a qualitative manner. Its characterization as a programmatic document does not wholly excuse undertaking the required environmental analysis. The DPEIR should evaluate the extent to which adopted General Plans within the long-term ILRP area designate agricultural land uses that would be undermined by the increased irrigation costs imposed by the long-term ILRP and the resulting loss of agriculture. Likewise, the DPEIR must discuss whether and how adopted HCPs in the long-term ILRP area rely on agricultural land uses and how the increased irrigation costs imposed by the long-term ILRP, and the resulting loss of agriculture, would affect those plans.

111-55

2. Even more egregiously, the DPEIR utterly fails to analyze the long-term ILRP's land use impacts. The DPEIR acknowledges that agricultural lands are a resource that must be analyzed under CEQA, and it also admits that many jurisdictions have adopted land use plans, regulations, and zoning ordinances to protect agricultural uses. Yet the DPEIR completely fails to analyze, even at a programmatic level, whether the long-term ILRP will conflict with any of these land use plans, regulations, or zoning ordinances. Again, the DPEIR's status as a programmatic document is not an excuse to omit any discussion of these potentially severe impacts – which is the faulty path taken

by the DPEIR.

111-55 cont'd

G. The DPEIR Fails to Identify the Environmentally Superior Alternative

1. The DPEIR adopts a NEPA-like approach and analyzes each of the alternatives presented in detail. However, the DPEIR ignores the CEQA requirement to identify the environmentally superior alternative. (See State CEQA Guidelines, § 15126.6(e)(2).)

111-56

H. Alternative 2 is the Superior Alternative

1. Among the five alternatives, Alternative 2 is the best option to strengthen the existing surface water ILRP and expand the ILRP to groundwater. The DPEIR confirms that Alternative 2 is the superior alternative. The Report evaluates the proposed alternatives on pages 96 through 105 (and in other locations), and finds that Alternative 2 was superior to all other alternatives. The only issue raised in the Report concerning Alternative 2 dealt with groundwater. The Report stated, when discussing groundwater monitoring under Alternative 2, that "feedback mechanisms would not include groundwater quality monitoring to determine whether practices implemented would be maintaining and/or restoring beneficial uses or the highest reasonable groundwater quality." (Report at p. 112.) This criticism is inaccurate as the statutorily created local groundwater quality management plans specifically require such monitoring and Alternative 2 expressly calls for monitoring to be included in the newly created groundwater management plans. Therefore, Alternative 2, without reservation, is the superior alternative.

111-57

III. Economic Analysis

A. Economic Analysis is Flawed and Fails to Adequately Address Economic Impacts

1. The Economic Analysis is extremely disappointing and inadequate. The analysis shows only very narrow differences in the economic impacts between the five alternatives, and has no analysis of the RPA whatsoever. To begin with, the Economic Analysis states that Alternative 1's (misnamed the no project alternative) costs would include the administration and management of water quality information. (Economic Analysis at p. 2-23.) Since it is the "no project alternative" it is assumed that existing programs would remain in place with no changes or additions. This assumption coupled with the fact that virtually all dischargers have implemented the management practices necessary to satisfy current ILRP requirements, one would expect the cost of Alternative 1 to be significantly lower than all other alternatives. However, management practice costs for Alternative 1 are listed at $450,581,233. The costs for Alternative 2, 3, and 4, which are aggressive expansions of the ILRP, are listed at approximately

111-58

$452,449,969 each. (Economic Analysis Figures 2-18-2-21.) The analysis indicates only a cost difference of $1,868,736 between the current ILRP and Alternatives 2 through 4. Given the fact that any of the alternatives, including the RPA, would require significantly more practices than are currently being implemented, the costs of the alternatives and the RPA as compared to Alternative 1 have to be significantly higher. (Economic Analysis at p. 2-3.)

The economic impact differences between the alternatives is significant and this fact is not apparent from this analysis. Beyond that, the other alternatives also deal with groundwater as opposed to Alternative 1 which does not. The costs associated with the monitoring and reporting of groundwater quality are significant, and lead will lead to total costs under the other alternatives significantly higher than those of Alternative 1, perhaps as much as four times higher. The economic evaluations are wholly defective.

111-58 cont'd

2. The Economic Analysis fails to satisfy CEQA because it does not contain an accurate discussion of the economic and social impacts of the proposed project. (See State CEQA Guidelines, § 15131, subd. (a), 15382.) Where an EIR identifies significant environmental impacts, the related economic and social impacts are relevant. The requirement to consider secondary and indirect environmental effects is mandatory. (*Citizens Association for Sensible Development of Bishop Area v. County of Inyo* (4th Dist. 1985) 172 Cal.App.3d 151, 170.) When non-environmental factors are determined to be significant, the EIR must explain the reasoning used to reach its conclusions. Here the costs associated with the proposed alternatives, over $450,000,000 is significant. The Economic Analysis fails to accurately analyze or explain the basis for its conclusions. (See State CEQA Guidelines, § 15131, subd. (b).)

111-59

3. Focusing only on groundwater: (1) dealing with nutrient requirements; (2) imposing additional groundwater monitoring; or (3) amending irrigation practices to meet new efficiency standards are just a few examples of components that vary greatly between alternatives and will have a huge impact on the cost of a given alternative. These impacts were totally ignored. Costs related to these requirements could easily reach into the dozens or hundreds of millions of dollars. It is not stated, but these costs are apparently to be borne by the affected landowners. If only a thousand farmers had to drill only two monitoring wells at a cost of $200,000, the total cost for this component approaches one-half billion dollars. If 500 farmers had to restructure their irrigation system in only four of their 20 fields at a cost of $40,000 per field, that is $400,000,000. These impacts have also been totally ignored in the document. When SSJVWQC addressed the environmental consultants at the field hearings, they affirmatively acknowledged that these issues are potential regulatory requirements and the costs may be significant, however, they said they could not address those impacts because the Regional Board staff proposal was so imprecise as to what

111-60

would actually be required that they could not evaluate the impact. This reflects both regulatory notice problems and the inadequacy of the Economic Analysis. 111-60 cont'd

4. Further, the Economic Analysis did not specifically analyze the RPA, even though they (the Regional Board staff – not the experts actually performing the Economic Analysis) have selected a number of $492,000,000 in costs. They also assert an assumption of how much agricultural land would likely be forced out of production and how many jobs would be lost if the RPA were implemented. Yet, they do not deal with any of the big ticket items or set forth any of their assumptions which makes the environmental analysis nearly useless. 111-61

5. The Report gives some approximation of the values to drill additional wells, and indicates that new wells would cost between $76,000 and $1,000,000. If the 45 communities that have impaired drinking water drilled new wells, that cost would be between $20 and $47 million to merely drill additional wells across these communities. (Report at p. 50.) 111-62

6. Appendix B of the Report also addresses monitoring well costs, and indicates on page 21 that they anticipate 5,000 additional monitoring wells. If these 5,000 new wells averaged only $10,000 each (a significant underestimate of the anticipated cost), this would result in $50 million in additional costs. Actual well costs to deep aquifers may cost 10 to 20 times this amount - therefore, the greater part of a billion dollars. This was completely ignored in the Analysis. 111-63

7. The Report indicates that the Regional Board staff proposes to augment their force and increase staffing to as many as a total of 48 staff members. Even Alternative 2 is determined to lose five jobs in the Tulare Lake Basin, versus Alternative 4 which would cost $511 million with 12 jobs lost. As discussed above, the economic analysis is woefully inaccurate, and significantly under estimates the cost of all the alternatives – particularly if coalitions do not continue to administer the waiver. A real possibility again totally ignored.. 111-64

8. Neither the RPA nor the Economic Analysis makes any assumption on compliance, enforcement or other costs which will be significant under all of the alternatives. 111-65

IV. Conclusion

The ability of irrigated agriculture to comply with the terms of any new program is dependent on the Regional Board adopting a reasonable and practical program that properly applies designated beneficial uses and interprets narrative water quality objectives. The agricultural coalitions signatory to this document appreciate the opportunity to comment on the DPEIR, RPA and associated documents. However, there

136-1

remain significant issues of concern and areas of disagreement concerning the DPEIR and the RPA. We reiterate that Alternative 2 provides the necessary protection for water quality while allowing the various agricultural entities the ability to assist growers and the Regional Board in developing reasonable programs for the protection of surface and groundwater in the Central Valley. Alternative 2 has been analyzed in the DPEIR and therefore is less vulnerable to a CEQA challenge than the RPA, which was not been analyzed in the DPEIR. We ask the Regional Board to carefully consider the comments provided above and recommend Alternative 2 as the preferred alternative.

Respectfully submitted,

DAVID ORTH, Steering Committee Coordinator
Southern San Joaquin Valley Water Quality Coalition
Kings River Conservation District
Kings River Water Association
Kaweah Delta Water Conservation District
Kaweah and St. Johns Rivers Association
Deer Creek and Tule River Authority
Kern County Water Agency

Belridge WSD
Berrenda Mesa WD
Buena Vista WSD
California Citrus Mutual
Cawelo WD
Henry Miller WD
Kern Delta WD
Kern-Tulare WD
Lost Hills WD
North Kern WSD
Paramount Farming Company
Rosedale-Rio Bravo WSD
Semitropic WSD
Shafter-Wasco ID
Tehachapi-Cummings CWD
Wheeler Ridge-Maricopa WSD

Attachments

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MEMORANDUM

To: David Orth – Coordinator Southern San Joaquin Valley Water Quality Coalition

From: Michael (Mike) Day, CA Registered Civil Engineer C39494
Linda Gomez Sloan, CA Professional Geologist 8299

John Schaap, CA Registered Civil Engineer C61754, CA Registered Agricultural Engineer AG563.

Subject: Review of Proposed Environmental Impact Report (PEIR) for Irrigated Lands Regulatory Program (ILRP) of Central Valley Regional Water Quality Control Board (Regional Board)

Date: September 27, 2010

INTRODUCTION

Pursuant to a request from Ernest Conant of Young-Wooldridge, Provost & Pritchard Consulting Group, Inc. (P&P) staff and Ken Schmidt of Kenneth D. Schmidt & Associates (KDS&A) reviewed the subject document with respect to lands in Kern County that would potentially become subject to regulation under the proposed ILRP. This memo summarizes P&P and KDS&A[1] findings, and focuses primarily on technical issues (as opposed to policy or legal issues). The below comments and findings pertain to the Kern County portion of the area covered by the PEIR, in particular, and they often apply to other areas to the North as well.

GENERAL COMMENTS

In general, the PEIR is severely lacking in technical detail, making it difficult to comment on specific or detailed items. In particular, there are underlying assumptions "built in" to the document for Alternatives 2, 3, 4, and 5, which are also in the Staff's preferred alternative that are not explicitly stated, which are particularly troubling, but more importantly, difficult to evaluate by PEIR authors let alone a third party

111-66

The assumptions built in to the document include:

1) Regulation by the Regional Board is the only alternative to solve water quality problems in waters of the State;

[1] Ken Schmidt, CA Professional Geologist 1578, and Certified Hydrogeologist 176, reviewed the PEIR and participated in the preparation of this memo with respect to hydrogeology issues

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2) All irrigated lands within the boundaries of California's Department of Water Resources (DWR) Bulletin 118 groundwater basins discharge or have the potential to discharge to groundwater;
3) The cited economic model correctly designates irrigated land vs. other land uses.
4) Deep percolation from irrigated lands always occurs in quantities large enough to transport significant amounts of contaminants below crop root zones;
5) Deep percolation from irrigated lands always has the potential to transport contaminants that would impact water supply wells;
6) All groundwater underlying irrigated lands, or underlying other areas that could be potentially impaired by "discharge" from irrigated land is high quality waters of the State with beneficial uses that should be protected from any degradation or contamination with any constituent of concern;
7) Specific constituents of concern are not designated or differentiated that would be subject to ILRP regulations. It should be noted that constituents of concern are managed differently by agricultural operations and behave differently in the environment.

111-66 cont'd

Further observations include:

1) There is a presumption that DWR Bulletin 118 groundwater basin boundaries are accurate;
2) No consideration or specific analysis of water and/or contaminant transport mechanisms in the root zone, vadose zone, and/or groundwater has been done to designate or differentiate areas that would be subject to ILRP regulations;
3) No consideration or specific analysis of agronomic science, groundwater hydrology and/or geochemistry has been done to designate or differentiate areas that would be subject to ILRP regulations, and in particular, these considerations may include:
    a. Mechanisms of contaminant volatilization, transport or capture in or above the crop root zone;
    b. Moisture content of vadose zone sediments;
    c. Clay layers that impede or inhibit groundwater movement;
    d. Groundwater depth;
    e. Piezometric water surface levels and gradients;
    f. Naturally occurring constituents beyond the control of irrigated agricultural land operators;
    g. Historically used (legacy) chemicals (many of which are no longer used and/or used differently now) in soils, vadose zone, or groundwater which are beyond the control of irrigated agricultural land operators.
4) No consideration of other immediate/adjacent factors; for example well construction and surrounding land use, farming and irrigation practices, hydrogeology, geochemistry, contaminant source and transport has been considered with respect to public water supply wells and/or domestic wells whose water would need to be protected from contamination. And, no consideration was given to alternatives besides regulating irrigated lands for protecting those wells;

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5) Economic analyses lack in reality regarding monitoring and compliance requirements and responses\results to the regulation of irrigated lands; 111-67 cont'd

FINDINGS

P&P and KDS therefore submit the following findings for why these assumptions should not be made:

1) Irrigation itself is not a waste discharge to groundwater. Consider the fact that surface water used in most parts of Kern County is of a quality that, when used in irrigated agriculture, improves groundwater quality (if deep percolating water reaches it). Waters from the Friant-Kern Canal and Kern River originate from Sierra Nevada Mountain rain and snow melt runoff, and are consistently of excellent/high quality. Waters from the California Aqueduct also originate from Sierra Nevada runoff, and while higher in minerals, is also of better quality than groundwater in many areas. Water quality data for these three primary surface water sources for Kern County irrigated agriculture are provided in Table **A** to illustrate this point. Furthermore, deep percolation from irrigation is in fact an important groundwater recharge activity in some areas with suitable soils and groundwater conditions, and is necessary to maintain a water balance. Regulations to improve irrigation efficiency in those areas, thereby limiting deep percolation, would exacerbate already chronic water supply shortages and groundwater overdraft conditions as well as limit dilution of groundwater constituents with higher quality surface water 111-68

2) Moisture deficient sediments underlie some lands, particularly in western parts of Kern County, effectively acting as a barrier between downward percolating water and groundwater until the moisture deficient soils become saturated. These sediments have a significant capacity to absorb water. This phenomenon was investigated, identified, and became an important factor influencing construction of the California Aqueduct and other canals constructed later in Kern County Areas with substantial underlying moisture deficient soils should be excluded from the ILRP for groundwater protection purposes. 111-69

3) The DPEIR utilizes DWR Bulletin 118 boundaries, which have been found to be very general when reviewed by hydrogeologists with access to more well driller's logs than were available to DWR geologists setting boundaries. A more current and careful review of groundwater basin boundaries is needed to assure that some irrigated lands which do not overlie groundwater are not inappropriately included in the ILRP for groundwater protection purposes. 111-70

4) Irrigating areas which overlie shallow groundwater and/or poor quality groundwater commonly referred to as "brackish water", which is unsuitable for drinking is not a hazard that should be protected against factors that improve its quality. Much of Kern County should be excluded from the ILRP for this reason. A map prepared by Kern County Water Agency is provided with this memo (**Figure 1**) which shows areas in Kern County generally considered as having useable groundwater, and the remainder having unsuitable brackish 111-71

groundwater. Note, however that the map was not specifically prepared for this purpose, is now somewhat dated, and should not be explicitly taken as definitive boundaries for the ILRP.

On this point it should be noted that large areas of the Western portion of the San Joaquin Valley in particular, but a few other areas as well, have excessive, naturally occurring saline-sodic soils and first-encountered groundwater with high salt content (sodium, chloride, etc), boron, nitrates, and in some cases arsenic, selenium, molybdenum, nickel, and other trace elements. These areas have been well documented in numerous studies (Rector 1983).

As an example, total dissolved solids (TDS) values in groundwater and around the Lost Hills Anticline and the Antelope Plain were reported by Wood and Davis (1959) to range from 2,200 to 10,900 ppm in the 1950's. DWR found high concentrations of nitrates in groundwater in the San Joaquin Valley in the 1960's In more recent years the interagency San Joaquin Valley Drainage Program (Swain, 1990) found salinities frequently exceeding 20,000 µS/cm in shallow groundwater in the perched zone of the basin-rim zone, generally located at the lower end of alluvial fans and the adjacent basin trough. Figure 2 shows lines of equal Total Dissolved Solids (TDS) concentrations in the Lost Hills area, based upon Kern County Water Agency data from 1997.

Note that levels of salinity alone render brackish groundwater unsuitable for drinking or irrigation. Further, concentrations of nitrates, arsenic, selenium, and other trace elements exceeding drinking water standards are often found in these same areas. 111-71 cont'd

It is remarkable that all of the known areas with brackish groundwater in Kern County are currently designated by the Regional Board in the Tulare Lake Basin Plan as having beneficial use (though the CV-SALTS basin plan amendment process rightly has this under review).

5) In addition to the brackish waters discussed in item 5 above, many areas of Kern County have naturally occurring constituents in the soil, underlying sediments, and/or groundwater viewed by the Regional Board as contaminants that are beyond the control of the operators of irrigated lands. Regulations proposed in the draft PEIR would not address this situation.

   - One example of such are irrigated lands which previously were swamp and overflow areas. Many of these areas have soils and underlying groundwater with naturally occurring high levels of organics and/or nitrates. This is due to previous and continuing decomposition of the vegetative matter in swamp and overflow land soils and underlying sediments.

6) Crop, soil, vadose zone, and/or groundwater uptake of potential contaminants effectively mitigates pollution in many cases. 111-72

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Many of the constituents of concern identified in the ILRP PEIR are already sometimes effectively removed or transformed to other harmless states through a variety of processes in the soil and/or underlying and neighboring areas that will continue to occur regardless of ILRP regulation. The Regional Board staff's preferred alternative for the ILRP advances unnecessarily expensive regulations that would not always be the most effective way to address many constituents of concern.

111-72 cont'd

Concerning nitrates, nitrogen is often applied to irrigated agricultural lands in organic or inorganic forms as an essential fertilizer, and goes through many complex processes that ultimately remove or immobilize all or most of it before it can reach groundwater. Crops use nitrogen (N) to manufacture proteins, chlorophyll, and other essential plant biochemicals necessary for their growth. Plants acquire N primarily from soils within the root zone. Most of the N in soil is a part of the soil organic matter. For prevention of a long-term decline in the soil organic matter, N must be added at least at rates that will replace the N removed in the harvested crop and replace losses of N below the root zone, which for practical purposes are not completely avoidable in all cases for sustained periods. The use and fate of nitrogen in agriculture is more completely described by Chang, et. al (2005) and Hantzsche et. al (1992).

The following mechanisms which already occur through normal agricultural operations have been identified by the above mentioned authors to remove nitrogen from agricultural fields or immobilize it.

111-73

- Removal in plant material through harvesting;
- Ammonia volatilization from the soil surface;
- Ammonia and other nitrogen gases volatilizing from plant surfaces;
- Denitrification loss of nitrate and nitrite as N_2, N_2O, and NO gasses;
- Binding of nitrogen in sediments;
- Leaching of nitrate and nitrite beyond the root zone.

Since nitrogen is a significant crop input and operating cost, farmers are motivated to manage this resource appropriately. Leaching is the only potential nitrogen threat to groundwater, and can only happen if nitrogen is available in a mobile form, and if water is percolating below the root zone. Best Practicable Treatment and Control (BPTC) (if that regulatory approach were to be applied) for leaching of nitrogen includes appropriate timing and applications of fertilizers, and good irrigation efficiencies. Our knowledge of Kern County irrigated agriculture suggests that these things are happening in most of Kern County already. The Regional Board staff's preferred ILRP alternative would not necessarily be the most cost-effective way to reduce nitrates in drinking water wells in particular. Based upon experience, P&P and KDS believe potable water wells can often more economically be protected from existing and future nitrate contamination by changes that cause them to be fed by deeper groundwater zones of higher quality (i.e. deepening or replacement with screens tapping waters with safe nitrate levels below protective clay layers), by water treatment to remove nitrate, or through service by bottled water..

Concerning pesticides and herbicides, many of the constituents of concern discussed in the PEIR have been banned and/or are no longer used in the Central Valley. Most pesticides and herbicides used in the Central Valley today have very short half-lives, and they volatilize, degrade into harmless forms, and/or bind to soil or sediment without becoming a threat to groundwater. Regulation of pesticides and herbicides for groundwater protection should be coordinated through the Department of Pesticide Regulation versus what is proposed in the PEIR by the Regional Board. 111-74

7) Most irrigated lands in Kern County have no leaching, or leaching that is well below the most extreme BPTC regulation proposed in the ILRP.

In addition to the findings discussed above, irrigation is otherwise not a significant threat to groundwater quality in many parts of Kern County because irrigation efficiencies are very high and deep percolation either does not occur, or happens in such low quantities that regulation under the ILRP would do nothing to reduce it. A number of references illustrate this point, and are described below:

From Fall 2000 through 2006, irrigation scheduling and soil moisture monitoring demonstrations and irrigation evaluations were conducted by the University of California Cooperative Extension in 132 fields over 11,994 acres with 30 different growers covering 14 different crops, 11 different soil textures and 9 different irrigation system types in Kern County. Data collected from these sites indicated that the average on-farm application efficiency was 95%. (Sanden, 2008, with interim results published in Sanden, 2006). In many of the fields, efficiencies of 100% were measured. These indicate no runoff or deep percolation. Burt et al (2008) discusses regulated deficit irrigation (RDI) practices, which are widespread in Kern County, and produce no deep percolation. This practice may not be sustainable for long periods of time; nevertheless, it is widely employed. 111-75

Sanden, Burt, and their co-authors conclude that farmers are already highly motivated to conserve water, control pumping power costs, minimize fertilizer and other inputs, and thus there is little, if any, "wasted" water to conserve. It follows logically that if no water is being lost to deep percolation, then there is very little groundwater pollution potential.

High irrigation efficiencies represent best practicable treatment and control (BPTC) for irrigation in areas that have become subject to that standard (also proposed in some of the Alternatives in the ILRP). Since that is already widespread in Kern County, regulation won't reduce deep percolation significantly.

8) Clay layers in many parts of the groundwater system underlying the Central Valley, and Kern County in particular, prohibit or greatly inhibit the downward movement of water in many areas, and thus isolate deeper waters with beneficial uses from contamination by possible percolating water from irrigated lands (Croft 111-76

1972, Metz 1991, Page 1986, Rector 1983). Where there may be percolation, time of transport considerations render many of the proposed ILRP regulatory actions ineffective.

Lake bed deposits have been identified in the subsurface, the A through F clays, that act as aquitards that retard vertical groundwater flow. The most regionally extensive E clay separates unconfined to semiconfined groundwater above the clay from confined groundwater below the clay. Its thickness ranges from about 10 feet near its edge to more than 160 feet beneath the Tulare Lake bed (Croft 1972; Metz 1991, Page 1986).

The aquifer above the A clay is comprised of interbedded lenses of sand and clay; typical of deposits under flood plain conditions. The combined thickness of clay beds in the near subsurface provides a uniform barrier to deep percolating water; forming a perched groundwater condition (Rector 1983).

111-76 cont'd

9) Water moves through soil due to two types of forces –gravity and capillary tension. Capillary forces pull water from wet areas into dry areas in any direction. Gravity pulls water downward. Capillary forces vary greatly in magnitude depending on the water content in a given soil and by soil texture. Capillary forces dominate flow conditions in unsaturated soils, while gravity only governs flow in saturated soil conditions (Gardner 1979). With this background, we note the following:
   - Surface evaporation and transpiration can create extremely dry near-surface soil conditions in more arid areas, such as many areas in the southern San Joaquin Valley;
   - Soil moisture content generally increases with depth, so capillary forces can tend to wick water from moist, deep percolation areas toward the adjacent near-surface dry soils rather than downward. This is more likely where more thickness of unsaturated sediments is present between the surface and deep groundwater;
   - Similarly, alternating layers of coarse- and fine-grained sediments can serve as capillary breaks that also act to retard downward movement of groundwater.

111-77

CONCLUSIONS

Based upon these findings, P&P and KDS make the following conclusions:

1) The Regional Board should adopt Alternative 2 subject to the following conditions.

2) The Regional Board should conduct scientific studies which eliminate the erroneous assumptions and incorporate consideration of the various matters discussed above in selectively identifying and designating specific irrigated lands which properly belong in the ILRP with respect to regulations that would protect groundwater with beneficial uses.

111-78

3) After accomplishing item 2 above, the Regional Board should re-visit, and revamp Alternative 2 with regulations working through existing coalition groups, with appropriate consideration of existing Groundwater Management and Integrated Regional Water Management Planning Agencies; and involve carefully selected experts from appropriate scientific disciples related to irrigated agriculture, hydrogeology, and pollution control, having practical, local knowledge. 111-78 cont'd

LIST OF ATTACHMENTS

Table 1: Water quality data for three primary surface water sources for Kern County irrigated agriculture.

Figure 1: Map illustrating areas in Kern County generally considered as having unsuitable brackish groundwater.

Figure 2: Total Dissolved Solids in Groundwater Above the Corcoran Clay in Lost Hills Area

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3.3.27.1 Responses to Letter 111

Note: Comment Letters 112 and 136 are part of Comment Letter 111.

111-1

See Master Responses 3 and 4.

111-2

See Master Responses 4 and 10.

111-3

See Master Response 12.

111-4

See Master Response 12.

111-5

The estimate of 2 million additional acres was determined by subtracting the irrigated acreage in the current ILRP from DWR estimates of total irrigated acreage in the Central Valley (Draft PEIR, Appendix A, page 143, footnote 46). Despite using the best available information, there is uncertainty in the estimates for current existing irrigated acreage in the Central Valley depending on the information source (6.5 million acres to more than 8 million acres; see Draft PEIR, Appendix A, Table 16). The reported measure of how much additional acreage would be subject to the Long-term ILRP thus depends on the estimate of existing irrigated agricultural lands used in the calculation. The Central Valley Water Board has found in its compliance efforts with non-participants in the current program that multiple data sources may indicate that a parcel is used for irrigated agriculture but the only way to verify the information is by site visit.

111-6

See Comment Letter 1, Response 8.

111-7

See Master Response 18.

111-8

See Master Response 18.

111-9

See Comment Letter 9, Response 18.

111-10

See Comment Letter 1, Response 11.

111-11

Any managed wetlands within the Central Valley watershed boundary that have the potential to discharge waste to waters of the state would have regulatory coverage under any of the ILRP alternatives, regardless of whether it is located in the northern or southern portion of the valley.

111-12

The Central Valley Water Board will consider the support of "grandfathering" in current participants during development of the Long-term ILRP. Also see Comment Letter 87, Response 4.

111-13

The statement in the Draft PEIR, Appendix A, page 9 is accurate in stating that most coalitions do not have the authority to require members to implement management practices. As indicated in the comment, some member districts have authority over some aspects of growers' practices; however, the Southern San Joaquin Valley Water Quality Coalition (SSJVWQC) is established through an MOU that does not give the coalition itself any such authority over its members.

111-14

The Central Valley Water Board believes that the timelines are aggressive, but not unreasonable. A number of coalitions are presently exploring issues surrounding how to address discharge to groundwater and should be prepared to make a decision regarding their future involvement in the Long-term ILRP shortly after Board adoption of the program. When the Board considers the Final PEIR and Long-term ILRP, the coalitions would have been engaged in extensive discussions with staff and other stakeholders for more than two years. Having considered the range of possible alternatives during that time, the coalitions should be prepared to determine their role in the Long-term ILRP shortly after Board adoption. Therefore, staff considers the 3-month timeframe to be reasonable.

The 12-month timeframe for Board adoption of the applicable waivers and WDRs also should be achievable. The Board intends to focus its available staff resources on developing the applicable orders and bringing 2–3 before the Board for consideration each quarter.

The 30-month timeframe for enrollment of new participants from Board adoption of the Long-term ILRP would provide approximately 18–24 months from the adoption of the applicable orders for growers to enroll. Considering the State Water Board recently adopted major revisions to its construction storm water permit that provided a 9-month window until the new requirements applied, the 18–24 month timeframe should be more than sufficient for new growers to enroll.

111-15

On numerous occasions stakeholders have urged that the program be flexible and allow irrigated agricultural operations to implement practices that make the most sense at their particular sites. The Central Valley Water Board agrees with these stakeholder concerns and has noted that the variability of conditions and agricultural operations must be given primary consideration when developing regulatory requirements. In order to address these concerns, Alternative 6 would include the development of a series of general orders and prioritized requirements based on local conditions.

As noted in the comment there will be complexities associated with developing the geographically based orders, surface water and groundwater requirements, and prioritization of areas described in Alternative 6. These complexities will likely lead to increased time and effort in developing program monitoring and management requirements. However, the Central Valley Water Board believes that the framework is the best way to address concerns regarding program flexibility and meet applicable state policy.

111-16

See Comment Letter 111, Responses 14 and 34 and Master Response 13.

111-17

See Comment Letter 10, Response 4.

111-18

See Comment Letter 96, Response 21 and Comment Letter 1, Response 19.

111-19

See Comment Letter 39, Response 1.

111-20

See Comment Letter 1, Response 21.

111-21

The Central Valley Water Board will consider providing flexibility to characterize areas with identified water quality problems (dissolved oxygen, electrical conductivity, pH, pathogens, and toxicity) as lower priority, as long as the problems are not directly tied to irrigated agricultural waste discharges.

111-22

See Comment Letter 1, Response 23.

111-23

See Comment Letter 94, Response 40.

111-24

Baseline conditions are the current conditions in an area or groundwater basin, to be established through the use of existing regional monitoring data. Groundwater monitoring that continues with implementation of the ILRP would be used to establish trend data.

Evaluation of changes in management practices will be through the continued groundwater monitoring and through the use of targeted site-specific studies designed to evaluate the effects of changes in management practices on groundwater quality (Draft PEIR, Appendix A, page 158).

See Comment Letter 111, Response 25.

111-25

See Master Responses 4, 7, and 17.

Also see Comment Letter 5, Response 1; Comment Letter 9, Response 10, and Comment Letter 50, Response 6.

ILRP development is currently at the programmatic level. In Chapter 2 of the Economics Report, programmatic-level monitoring costs have been estimated for each of the alternatives, including costs associated with monitoring well installation.

As development of the Long-term ILRP progresses and its implementing mechanisms are prepared, greater detail about the monitoring requirements will be available for review and input, as well as further CEQA analysis, if appropriate. This comment concerning necessary detail will be considered.

111-26

See Comment Letter 1, Response 28.

111-27

See Comment Letter 1, Response 29.

111-28

See Comment Letter 1, Response 30 and Comment Letter 45, Response 16.

111-29

See Comment Letter 1, Response 30, 31, 32 and 33.

111-30

See Comment Letter 1, Response 34.

111-31

No specific information or evidence is provided to suggest why more than 18 months would be needed to demonstrate that existing ground water quality management plans are adequate, as the comment indicates. Also see Comment Letter 102, Response 9.

The Porter-Cologne Water Quality Control Act provides that the State Water Board and Regional Boards are the principal state agencies vested with "the primary responsibility for the coordination and control of water quality." The Water Boards' statutory authority gives it the responsibility and capacity to regulate the discharge of wastes to groundwater. The planning processes established by AB3030, SB 1938, and through the IRWMP do not vest local agencies with any authorities that supersede the authorities granted to the Water Boards.

111-32

See Master Response 19.

111-33

In the context of the ILRP, water quality management practices, or management practices, are those practices in place to meet the goals and requirements of the ILRP. Under Alternatives 2, 4, and 6, third-party groups would be required to provide tracking and reporting on these practices. Under Alternatives 3 and 5, individual operations would be required to develop individual farm plans that would describe practices in place to meet the goals of the ILRP.

111-34

The Draft PEIR, Appendix A (page 159) indicates that the compliance schedules apply to a limited set of waters and uses (those that meet the identified "priority" criteria) and only where agriculture is causing or contributing to the exceedance. Time schedules for compliance with any salinity objectives will primarily be addressed through the CV-SALTS process. Dissolved oxygen, pH, and pathogen issues generally need further investigation before it can be determined whether irrigated agriculture is causing or contributing to the problem. If agriculture is known to cause or contribute to a surface water quality problem, 5 years is a reasonable time to fully implement corrective measures in these priority areas. The types of management practices that are typically needed to manage such surface water quality problems are not unusual for agricultural operations (e.g., improved irrigation management systems; nutrient budgeting). The UC Cooperative Extension and NRCS have technical expertise and can assist growers to ensure those practices are established and managed correctly. Because many of the practices are used extensively already, and technical support is available, it is reasonable to expect such practices to be implemented within a few years.

The further development of the Long-term ILRP will include consideration of circumstances under which individual farm management plans may be required.

If the regional approach for addressing water quality is not resulting in improvements and ultimately compliance, it is reasonable for the Central Valley Water Board to directly regulate the individuals whose discharge may be causing or contributing to that water quality problem. For groundwater quality, improvement in water quality, rather than attainment of objectives, is required in the 5–10 year timeframe. As with surface water quality, the practices contemplated to reduce discharge of waste to groundwater (e.g., nutrient management, irrigation water management) are currently available and can be implemented by growers in a short time frame. The studies and assessments necessary to determine whether the practices are being implemented effectively can also be conducted within the 5–10 year timeframe.

The comment includes a recommendation for conditions that must be met prior to requiring an individual farm management plan. The first condition requires a determination that the individual farmer is directly responsible for causing the water quality problem. The only practical method for making such a determination is to conduct site-specific monitoring/ studies of all individual farms in the area with the surface or groundwater quality impact. The Central Valley Water Board does not believe such broad-based and costly monitoring is reasonable as a pre-condition, since it would be much less expensive to prepare an individual farm management plan.

111-35

The Central Valley Water Board agrees that ILRP requirements should be coordinated with other programs.

See Comment Letter 1, Response 45.

111-36

The Central Valley Water Board is not aware of any University of California studies that reach broad-based conclusions regarding irrigated agricultural contributions to elevated levels of pathogen indicator. The Board agrees that ILRP requirements should be coordinated with other programs.

See Comment Letter 1, Response 45.

111-37

Alternative 6 would be instituted through the development of WDRs and waivers (orders) for geographic areas and commodity groups throughout the Central Valley. Dairy program requirements and monitoring would be considered in the development of geographic orders.

111-38

See Comment Letter 1, Response 48.

111-39

See Comment Letter 1, Response 23.

111-40

See Comment Letter 1, Response 48.

111-41

This comment will be considered in development of the Long-term ILRP.

111-42

See Comment Letter 1, Response 50.

111-43

See Comment Letter 41, Response 23.

111-44

See Comment Letter 45, Response 47.

111-45

See Comment Letter 99, Responses 45.

111-46

See Master Response 4. In addition, because Alternative 6 is generally constructed from the components of the five original alternatives, a programmatic level estimation of the costs and

economic impacts has been considered in the Draft ILRP Economics Report (see Draft PEIR, Appendix A, pages 169–171). Also see Master Response 17.

The support for Alternative 2 will be considered in development of the Long-term ILRP.

111-47

See Master Responses 3 and 4.

111-48

See Master Response 9.

111-49

See Master Response 2.

111-50

See Comment Letter 1, Response 53. Also see Master Response 1.

111-51

Comment noted.

111-52

See Master Responses 1 and 2.

111-53

See Master Response 14.

The Draft PEIR addresses the potential for changes in stream hydrology (beginning on page 5.9-15). Where land goes out of production, there would be the potential for less water being diverted from surface water and groundwater sources. As the comment notes, it is possible that there would be less agricultural return flow in some seasons and at some locations. Improvements in irrigation water management, which would reduce the demand for both surface and groundwater diversions, would not be expected to significantly affect groundwater; the improvements would reduce the potential for transport of agricultural chemicals (pesticides, herbicides) to groundwater bodies, contributing to improved conditions. In areas where current irrigation practices recharge groundwater, reduced irrigation water application could contribute to lowered groundwater levels. However, improvements in water use efficiency may also result in less groundwater pumping in some areas. In areas where irrigation water comes exclusively from surface water diversions and there is no likelihood of reductions in groundwater pumping, small changes in groundwater levels may occur.

Regarding land use issues, the Draft PEIR, on page 5.11-1, states that land use changes associated with implementation of the program alternatives are speculative. Some lands may be converted from active agriculture to other uses, but the location and nature of those changes is unknown at this time. Any changes in use that would require development would be subject to local government

review, including consideration of consistency with land use plans, policies, and regulations. Also see Master Responses 11 and 16.

111-54

See Master Responses 9, 4, and 19. The Long-term ILRP would not dictate the use of specific irrigation management practices or cropping patterns; the program would encourage practices that protect surface and groundwater quality from agricultural-related discharges. The decisions about specific changes to irrigation management practices that might be needed to comply with the regulations would remain in the hands of the individual farmer.

111-55

See Master Response 11.

111-56

The CEQA Guidelines at Section 15126.6(e)(2) do not require that an environmentally superior alternative be identified in the Draft EIR.

111-57

See Comment Letter 1, Response 59.

111-58

See Comment Letter 1, Response 60.

111-59

See Comment Letter 1, Response 61. Also see Master Responses 14 and 17.

111-60

See Comment Letter 1, Response 62.

111-61

See Master Responses 4 and 17.

111-62

See Master Response 17.

111-63

See Master Response 17.

111-64

See Master Response 17.

111-65

See Master Response 17.

111-66

The comment identifies several assumptions believed to be included in the characterization of Alternatives 2–5; although many general assumptions were made to conduct the impact analyses because of the broad scale of the study area and the lack of specificity available for where agricultural practices would be modified in response to the program, the ones listed in the comment were not part of this approach. The impacts discussed in the Draft PEIR represent the potential for effects at some locations within the study area; the impact discussions do not suggest that these effects would be associated with farming management changes at any specific location within the study area.

See Master Response 12 and Comment Letter 1, Responses 30 and 32.

111-67

See Master Response 7. Further, it is noted that the Central Valley Water Board will determine the need and extent of future CEQA environmental review associated with specific ILRP implementing mechanisms, such as general orders.

111-68

See Comment Letter 80, Response 1 and Comment Letter 95, Responses 2 and 7.

When surface water is used with fertilizers and other chemicals it can degrade groundwater quality and the ILRP has to consider this as a potential impact, even though it may not occur in all areas regulated by the program.

Also see Master Response 12.

111-69

This comment will be considered in development of the Long-term ILRP.

111-70

DWR Bulletin 118 boundaries were used in the ECR (which is incorporated by reference into the Draft PEIR) because the DWR boundaries encompass the entire Central Valley, which is consistent with the ILRP study area. (California Department of Water Resources 2003.)

See Master Responses 1 and 12.

111-71

Comment noted.

111-72

See Comment Letter 108, Response 10.

111-73

The suggestions to rely on bottled water, drill deeper wells, and source water treatment instead of ensuring waste discharge from irrigated agricultural operations does not impair Basin Plan beneficial uses of said waters is not consistent with state policy.

See Master Response 12 and Comment Letter 50, Response 14.

111-74

See Comment Letter 108, Response 10. Many pesticides, such as organochlorine types, persist in the environment and continue to be detected in recent water quality monitoring data, even though the pesticides have not been applied or used for more than 50 years. The Central Valley Water Board would coordinate regulation of pesticides for groundwater protection through DPR.

111-75

See Comment Letter 5, Response 1. This area specific information will be considered in the development and implementation ILRP WDRs and waivers.

111-76

See Comment Letter 5, Response 1. This area specific information will be considered in the development and implementation ILRP WDRs and waivers.

111-77

The Central Valley Water Board agrees that the dominant forces for water movement in the vadose zone are dependent on the specific matric potential (the combined effects of capillarity and adsorptive forces within the soil matrix)and gravitational potential that exists at a particular location, depth, and moment in time. According to John R. Nimmo of the USGS (*Unsaturated Zone Flow Processes*, 2005, in Anderson, M.G., and Bear, J., eds., Encyclopedia of Hydrological Sciences: Part 13--Groundwater: Chichester, UK, Wiley, v. 4, p. 2299-2322), infiltrated water is redistributed in the soil profile by gravity, matric pressure gradients, and possibly other forces. Redistribution continues until conditions are such that all forces balance out. Matric pressure gradients move water from wet to dry, both upward and downward. Where a fine layer overlies a coarse layer, water moving downward is impeded under many conditions. Water breaks into the coarse layer when the pressure at the interface builds to the point that the water-entry pressure is exceeded.

Capillary movement due to soil suction is partially dependent on (among other factors) the specific soil matrix that exists at a particular location. There is a large variety in area and site-specific soils in the southern San Joaquin Valley, with uniform isotropic conditions generally existing only on a macroscopic scale. Even in generally homogeneous fine-grained soils with an upward matric potential, downward water movement may occur through a small fraction of the medium along preferential paths such as wormholes, fractures, fingers of enhanced wetness, and regions near contacts between dissimilar portions of the medium (Nimmo 2005). A common phenomenon in a layered soil (alternating coarse and fine-grained sediments) is the accumulation of water in the unsaturated zone to the point where it becomes saturated (perched water), even though there is unsaturated material between that region and the deeper regional saturated zone. Perched

groundwater exists in large portions of the southern San Joaquin Valley west of Highway 99. These areas are often tile drained to stabilize the water table at a depth that allows irrigation to occur.

This site-specific information will be considered in the development and implementation ILRP WDRs and waivers.

111-78

See Comment Letter 45, Response 20.

3.3.28 Letter 12—Tulare County Farm Bureau, Patricia Stever, Executive Director

Comment Letter IL12

TULARE COUNTY FARM BUREAU

Mission: to promote and enhance the viability of Tulare County agriculture.

September 24, 2010

Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

RE: Central Valley Regional Water Quality Control Board draft PEIR and ILRP Comments

Ms. Smith,

The Tulare County Farm Bureau appreciates the opportunity to submit comments on the Central Valley Regional Water Quality Control Board Irrigated Lands Regulatory Program (ILRP) Draft Programmatic Economic Impact Report (PEIR) and Economic Analysis.

The Tulare County Farm Bureau [TCFB] is a non-governmental, non-profit, voluntary membership association whose purpose is to protect and promote agricultural interests throughout Tulare County and to find solutions to the problems of the farm, the farm home and the rural community. TCFB strives to protect and improve the ability of farmers and ranchers engaged in production agriculture to provide a reliable supply of food and fiber through responsible stewardship of California's resources. TCFB represents over 2,500 member families in Tulare County.

In reviewing the PEIR and the five outlined alternatives, proposed alternatives 2, 3, 4 and 5 will present additional increased and unnecessary regulatory burden on agricultural landowners and farm businesses in the CVRWQCB region. These plans have the potential to increase costs, all of which will be funded by fees paid by the participants, with a staggering increase in costs nearing a 90% increase over the current program. 12-1

It did not appear that the Staff Preferred Alternative was included in the PEIR and so we are unable to evaluate the alternative's impacts on agriculture including increased and unnecessary regulatory burdens and economic costs. 12-2

The Economic Analysis estimates it will cost a farmer thousands of dollars to characterize surface and groundwater quality for low impact areas. This does not include cost for water quality testing. This particular figure represents a disproportional cost to smaller farmers. In this current depressed economic environment, these costs, as well as those mentioned above, are unrealistic and not warranted to maintain surface water monitoring. 12-3

Through discussion with other agricultural organization, including the California Farm Bureau Federation, it is important to bring attention to the Economic Analysis. Monitoring costs in this portion of the document are grossly underestimated. Furthermore, these costs vary between regions of California further varying the costs associated with the program. This makes it very difficult to really get a clear understanding of what the potential cost will be to farmers.

TCFB believes that the work of monitoring and reporting needs to remain with the Coalitions as the third-party lead entities. These organized groups best understand the farmers with whom they work with and are best equipped to maintain reporting to the CVRWQCB. There is no need to create a new system of procedures and policies for reporting and organization when the current system in place works and has proven effective. It would be financially prudent to make the current system of coalitions work to accomplish the Goals and Objectives of the ILRP. It is our opinion that this recommendation can best be accomplished by adopting alternative number 2 as presented in the PEIR. 12-4

Again, we appreciate the opportunity to submit our comments on the ILRP.

Sincerely,

Patricia L. Stever
Executive Director

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3.3.28.1 Responses to Letter 12

12-1

See Master Response 17.

12-2

See Master Response 3.

12-3

See Master Response 17.

12-4

The support for maintaining the coalitions as lead entities, described under Alternative 2 will be considered in the development of the Long-term ILRP.

3.3.29 Letter 145—Upper Feather River Watershed Group, Carol Dobbas, Executive Director and Russell Reid, Chairman

Comment Letter IL145

UFRWGroup

Upper Feather River Watershed Group

Agricultural Stakeholders Advancing Water Stewardship

PO Box 975
Loyalton, CA 96118
www.ufrwg.org

September 24, 2010

ILRP Comments
Ms. Megan Smith
ICF International
415-737-3000
Emailed September 27, 2010 to ILRP Comments@icfi.com

RE: ***Comments on Long Term Irrigated Lands Regulatory Program Programmatic Environmental Impact Report (PEIR), Recommended Program Alternative (Program), and Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (Economic Analysis)***

The Upper Feather River Watershed Group represents 103 volunteer members and covers 43,000 irrigated acres in the mountain region of Plumas, Sierra and a portion of Lassen Counties. We thank the Regional Board staff for engaging agriculture stakeholders to participate in the development of the Long Term ILRP. Upper watershed subcoalitions have actively participated in local scoping meetings, stakeholder workgroups, low-threat focus groups and directly with Regional Board staff. We have reviewed the straw proposals and the above long term documents from the perspective of a small membership coalition, low intensity agriculture operations, and a rural mountain watershed region.

As one of several Northern California foothill and mountain counties, we appreciate the inclusion of Tier 1 opportunities in the Long Term program documents. Since the initial implementation of the ILRP program in our area, immerging factors quickly revealed the need for program modifications to appropriately address watershed diversities within the large Central Valley Region. These factors include: dominance of low intensity agriculture practices, regional geographic characteristics, distinct mountain watershed climates, local land use percentages, and the results of water quality data collected under the Irrigated Lands Regulatory Program.

As one of ten subcoalitions in Sacramento Valley Water Quality Coalition (SVWQC), we support comments submitted by SVWQC. The comments in this letter are areas of specific concern to Upper Feather River Watershed Group for the new Long Term Program.

1.2 Key Study Assumptions and Limitations (page 1-3) - *". . . the model assumes that growers will react to increased costs and other compliance requirements by adjusting crop production as needed to maximize net income and stay in business. Results from the Central Valley were extrapolated to affected areas in the foothills and upper watersheds."*

UFRWG Comment: In Northern California upper elevation watersheds, with limited frost free growing seasons, and other geographic limitations, adjusting crop production is generally not a feasible option as with Central Valley tilled agriculture operations. Forage crops tolerant of cool climates such as permanent native meadows, rangelands, alfalfa hay & grain hay are the predominate crops and primarily support summer season livestock operations; with minimal to no viable alternative cropping options. Additionally, the watershed diversities mentioned above support the fact that broad assumptions based on Central Valley conditions do not accurately reflect conditions of the upper watershed regions. Errant broad assumptions used in Long Term ILRP planning will perpetuate the costly lapses of the current program. 145-1

2. Implementation Mechanism (Page 138) – *"Recommendation: A series of area-, geographically based, or commodity-based implementation mechanisms with prioritized requirements. Implementation mechanisms could include waivers in low-priority areas and general WDRs in high-priority areas. Individual WDRs could be developed and implemented as an enforcement tool."*

It is recommend there be inclusion of an option for Individual Waivers for Tier 1 areas as an incentive based implementation mechanism in addition to Coalition Waivers - rather than offering only Individual WDRs as an enforcement tool. The Recommended Program Alternative lacks an identified mechanism for incentive-based relief to individual operators for implementation of best practices, which meet or exceed water quality and management plan objectives. We request the RB to post a projected fee structure for each of the two compliance options (individual vs third-party group) to allow business minded operators the opportunity to accurately assess cost/benefits for compliance under each option. The current ILRP lacked realistic expense projections for the two options. 145-2

3. Lead Entity (Page 138) - *"Recommendation: Third-party structure established in Alternative 1 and 2 (Coalition model) with additional structure and third-party transparency requirements."*

Program uncertainty, coalition(s) management overhead for transitional compliance mandates, and program litigation has driven expansive invoicing and, in some cases, the accrual of contingency funds. A well defined long term program designed to provide regional modifications which are more fairly based on: actual agricultural water quality contribution, need for fiscally responsible management stability and provide financial relief, is overdue. 145-3

Groundwater (page 155) – *As part of GQMP development, the third party would collect and evaluate available groundwater data, identify groundwater quality management areas (GMAs) of concern, identify constituents of concern in the GMAs, prioritize the GMAs and constituents of concern, . . ."* 145-4

UFRWG believes it is inequitable for the 103 members of UFRWG to bear the entire burden for developing groundwater baseline reports for the CVRWQCB. The assumption that all

irrigated agriculture creates waste discharge to groundwater, and the expectation that agriculture coalitions must fund efforts for initial groundwater baseline reports is unreasonable. This ignores the fact that agricultural lands in the upper watershed regions account for only 10% of land use, while other potential contributors comprise 90% of land use. Additionally, PUR reports document that 85+/-% of chemical use, a primary constituent of concern to groundwater, is by non-agriculture entities in our counties.

Existing public funded groundwater management organizations are in a better position to collect and provide this information to the Regional Water Quality Control Board, and such a strategy would more fairly spread the economic burden of groundwater evaluation to all users and potential contributors within a region. The outcome of initial reports could then direct future groundwater planning and collaboration.

UFRWG recommends a program designed to avoid conducting costly duplicative studies for area groundwater as was completed for surface water.

145-4 cont'd

Tier 1 and Optional Certified FWQMP Surface Water (Page 157) *- "Monitoring would consist of tracking of management practices and watershed based assessment monitoring 1 year every 5 years (similar to the assessment monitoring required under the current ILRP). Monitoring and tracking results would be submitted in a report every 5 years to the Central Valley Water Board. Additional monitoring may be required where assessment monitoring identifies a water quality concern".*

UFRWG urges reconsideration of further revisions to current costly monitoring schedules in regions where changes in agriculture practices are significantly limited by regional climate and geography. Assessment monitoring every 5 years should be conducted only if there is significant increase or change in the agricultural practices. In subwatersheds with little acreage or few members, monitoring even on a 5 year schedule is expensive and would provide little additional information.

145-5

9. Fees (page 160) *–" The Central Valley Water Board will recommend that the fee structure reflect the differing levels of effort for the different tiers and oversight of the irrigated agricultural operations as individuals versus as part of a third-party group".*

UFRWG has experienced that the current acreage fee structure results in higher per-member fees for crops lower per-acre returns. This holds true for both the state fee and various coalition level fees for the smaller coalition groups. Low intensity agriculture such as pasture and forage operations generally require larger acreages to be viable for beef cattle production. However, this type of agriculture land has relatively low value and return per acre compared to other commodities.

As the Economic Analysis reveals, the economic returns, water quality threat level, and program oversight requirements for 100 acres of native permanent pasture land at 5000 ft elevation is quite different from 100 acres of higher value commodities, with more intense and diverse cropping practices grown on the valley floors.

145-6

A revision in fee structure at all program levels to reflect the above factors will ensure that low threat pasture and meadowland operators in small coalitions, are not disproportionately burdened with program overhead expenses as a result of assessments based solely on irrigated acreage.

145-6 cont'd

Figure 23. Long - Term ILRP Prioritization Scheme Example (Page 161) - *"Examples of high-priority areas for surface water would be those under SQMPs (Surface water Quality Management Plans) in the current ILRP (where irrigated agricultural operations are a source of the water quality concern). Area priority may be re-classified by the Central Valley Water Board based on review of new information collected during program implementation (see feedback loop in Figure 22).*

UFRWG joins others in noting that it appears that very few, if any, areas will be Tier 1 based on the mixed criteria statements in the DPEIR. A clearer definition of prioritization factors and "Area" characteristics is needed. Also, clearer definition and prioritization of management plans for the low priority water quality parameters of DO, pH and E.coli, which would otherwise eliminate qualification for Tier 1, even for identified low-threat geographical regions and commodities. We also request that the language be eliminated that automatically places an area in Tier 2 if you have a Surface Water Quality Management Plans for E. coli, DO and pH. Recent DO and pH studies in Upper Feather River Watershed by UCCE support earlier findings of similar studies conducted by California Department of Water Resources in the1970's. Natural elements are identified as the major contributor of these low-priority parameters in our watershed. However, agriculture has been required to fund monitoring and management planning to address these elements.

145-7

Compliance and Management Practice Costs (Chapter 2)

The merging of Upper Feather with Upper Yuba makes it hard to compare data in the tables with actual known numbers for Upper Feather River Watershed Group. The numbers for enrolled acres and irrigated acres in Table 2-3 do not match recorded numbers in our records. The same applies to Table 2-4 for enrolled growers and total growers. However, it is not clear the source or extent that Upper Yuba data may figure into the equation.

145-8

Farm Income and Production Analysis (Chapter 3)

The aggregation of crops types for the FFGO category likely does not accurately evaluate the wide variance in crop values between rice lands and pasture lands.

Likewise, the use of the Central Valley Production Model (CVPM) which specifically excludes foothill and upper watershed regions (as seen in Figure 3-1) is grossly inadequate to formulate major assumptions for the extremely different upper watershed regions. This is the type of broad generalization that has driven the costly over-arching mandates of the current ILRP.

145-9

Regional Economic Impacts (Chapter 4)

UFRWG echoes the comments submitted by Plumas County Flood Control and Conservation District. Additionally we point out, that significant shifts in agriculture cropping, and banking on influx of potential supporting businesses is not economically sustainable for rural, sparsely populated regions.

Agriculture plays a critical role in defining the Upper Feather River region's rural way of life and protecting valuable resources such as open space, waterways, habitat for wild species, culture and history, and the many other benefits these lands provide to area residents and visitors. Many of these benefits are not commodity based. 145-10

The loss of Sierra agriculture lands as a result of costly over-regulation is not an acceptable outcome of the LT ILRP as suggested in the DPEIR.

It is the anticipation of UFRWG and other Northern California upper watershed regions that Tier 1 classifications in the Long Term ILRP will address this fact, and a number of other program inequities. These types of modifications will result in a more practical and equitable Long Term ILRP that reflects the low water quality threats of low intensity agriculture operations in Non-Central Valley Floor regions.

Upper Feather River Watershed Group takes seriously our responsibility to our membership, to take the lead in water quality compliance objectives with the highest cost-benefit to our membership and to our rural communities. The prioritization of water quality concerns and watershed regions in the Long Term ILRP will allow the CVRWQCB to more effectively direct their resources and will allow low impact regions to most beneficially re-direct financial resources as well.

Sincerely,

Carol Dobbas
Carol Dobbas, Executive Director
Upper Feather River Watershed Group

RR
Russell Reid, Chairman
Upper Feather River Watershed Group

Cc: Katherine Hart, Chair
Pamela Creedon, Executive Officer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive
Rancho Cordova, CA 95670

3.3.29.1 Responses to Letter 145

145-1

See Comment Letter 44, Response 7; Comment Letter 47, Response 13; Comment Letter 116, Response 12.

145-2

This comment will be considered in development of the Long-term ILRP.

145-3

This comment will be considered in development of the Long-term ILRP.

145-4

This comment will be considered in development of the Long-term ILRP.

See Master Response 12.

145-5

This comment will be considered in development of the Long-term ILRP.

145-6

This comment will be considered in development of the Long-term ILRP.

145-7

See Comment Letter 1, Response 23; Comment Letter 97, Response 6; Comment Letter 47, Response 2; and Comment Letter 41, Response 14.

145-8

This comment will be considered in development of the Long-term ILRP.

145-9

See Master Response 17.

145-10

See Master Response 17.

3.3.30 Letter 33—Yolo County Farm Bureau Education Corporation, Chuck Dudley, President

Comment Letter IL33

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September 24, 2010

ILRP Comments
Ms. Megan Smith
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RE: *Comments on Long Term Irrigated Lands Regulatory Program Programmatic Environmental Impact Report (PEIR), Recommended Program Alternative (Recommended Program), and Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (Economic Analysis)*

Yolo County Farm Bureau Education Corporation (YCFBEC) administers the Yolo County Subwatershed Program with 254,000 irrigated lands enrolled. We have actively been engaged in following the process as the Long Term Irrigated Lands program alternative were proposed. After reviewing the Draft Program Environmental Impact Report for the Central Valley Irrigated Lands Regulatory Program (DPEIR), the Draft Staff Report, the Recommended Program Alternative (RPA), and the Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (Economic Analysis) we make the following concerns:

Alternative #2 has the least economic impact. The staff preferred alternative for individual farm water quality plans is expensive for BOTH GROWERS and the REGIONAL BOARD. Small growers and specialty crop growers could find this requirement to be prohibitively expensive and be forced out of business. 33-1

The DPEIR Grossly Understates the Program's Potential Impacts on Land Use
The DPEIR should evaluate the extent to which adopted General Plans within the program area designate agricultural land uses that would be undermined by the increased irrigation costs imposed by the program and the resulting loss of agriculture. The DPEIR must discuss whether and how adopted HCPs in the program area rely on agricultural land uses and how the increased irrigation costs imposed by the program, and the resulting loss of agriculture, would affect those plans. 33-2

The Draft Staff Report makes an improper presumption that all irrigated agriculture creates a discharge of waste. In Appendix D the Surface Water Quality Management Plan (SWQMP) requirements fail to account for the possibility that irrigated agriculture may not be the predominant source of the identified exceedances as we discovered after spending thousands of dollars on surface water quality monitoring.

As general qualification, the SWQMP requirements should state that only if irrigated agriculture is identified as the predominant source of the pollutant discharge should the Surface and Groundwater Quality Management Plan be required to (4) identify practices to address the constituents of concern, (5) evaluate the effectiveness of management practices, (6) describe the grower outreach strategies, (7) track management practice implementation, (8) prepare a monitoring plan to track water quality, and (9) describe a schedule and milestones for the action taken. There is a real possibility that inputs from other point and non-point sources are contributing to the exceedances identified at monitoring sites, and identification of irrigated agriculture as the predominant source of the exceedances should be a prerequisite to taking the steps identified above. 33-3

ILRP Comments
Ms. Megan Smith
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The Recommended Program Alternative would require the development of a surface water quality management plan[1] (SQMP) for any parameter that exceeds water quality objectives two or more times in a three-year period. The exceedance trigger for the development of SQMPs, as expressed here, is not an appropriate trigger for many parameters. This requirement fails to take into account the purpose of the water quality objective at issue and the beneficial use for which it is designed to protect. More specifically, the two or more exceedances in three years is a standard derived from U.S. EPA's Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and their Uses (1985 Guidelines). Thus, at most, this standard should be applied where there are two or more exceedances of water quality objectives designed to protect aquatic life beneficial uses. It is inappropriate to use this standard to trigger implementation of SQMPs where there are exceedances of water quality objectives designed to protect non-aquatic life beneficial uses. 33-4

Agricultural Impacts
- What are the potential impacts to agricultural lands and potential loss of farmland due to increased regulatory costs? (Will lands be taken out of production due to high economic costs to comply with the requirements?)

Economics and Cost
- Adequacy and appropriateness of the economic analysis to your region. (As a general matter, there are numerous inaccuracies in the economic analysis that sway the economic results.
- Economic impacts and costs to comply for individuals and coalitions—Reasonable? Realistic? Feasible to continue farming?

Surface Water (Issues relating to the Recommended Program Alternative) 33-5
- Priority surface water bodies are defined as those water bodies or tributaries with aquatic life, drinking water, and human consumption beneficial uses or tributary streams with identified municipal or domestic drinking water intakes. The use of the tributary rule to determine which surface water bodies are considered priority may potentially expand the number of water bodies beyond what should be a priority (see Appendix A, p. bru159).

Groundwater Quality (Issues relating to the Recommended Program Alternative)
- Which groundwater aquifers are considered high priority? Has data been collected and analyzed from local and regional groundwater monitoring programs? If not, when will this be done?

Groundwater
- Possible areas of duplicity with existing monitoring efforts if the LT-ILRP adds a groundwater monitoring element, especially if it does not utilize existing local groundwater quality programs such as SB 1938, and Integrated Regional Management Plans.
- How will existing local groundwater monitoring programs be used for obtaining groundwater quality information?
- What is the definition of "discharges to groundwater?" Concerns with point of discharge and first encounter of groundwater since there are areas where first encountered groundwater is currently not nor historically been usable for drinking water or agricultural use.

[1] The SQMP would need to be developed for the watershed represented by the monitoring site.

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- The PEIR indicates that all ag operations can affect groundwater (ie: the mere act of irrigating a crop is considered a discharge to groundwater that causes degradation). This places the burden to prove no impact on the grower (grower has to prove way out of being regulated). What science or data was used to determine that all agricultural operations negatively affect
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-
- groundwater? Were geographic areas concerned? Depth of groundwater? Use of drip or controlled irrigation?
- How would a grower or coalition determine the nature of discharges to groundwater?
- Timelines for compliance do not seem reasonable or feasible. For example, the 18 month period to prepare groundwater management plans is infeasible for many, if not all growers.
- Additional information is needed regarding groundwater monitoring requirements. Are existing wells sufficient or is there an expectation that additional monitoring wells will be required?

33-5 cont'd

General

- Additional information is needed regarding the statements that allow for periodic review of surface and groundwater plans by third parties and "interested parties" (see Appendix A, pp. 154-155). What role will the public now have?
- The Draft PEIR identifies potential increase of greenhouse gas emissions from agricultural activities. What about carbon sequestration? Was that taken into account?
- Within the Recommended Program, what is the process for moving between tiers?
- Can portions of a program (i.e. constituents, sub-watersheds) move between tiers?
- What is the point of compliance (edge of field, drain, root zone…) for the LT-ILRP and what is the process for determining this?
- How does a coalition "prove" an area has no serious problems and can work their way out of the obligations?
- What are the specifics to qualify as a "lower threat?" How does this designation work for certain geographic areas such as mountain valleys, foothill areas of limited use, or areas of limited water quality problems? To be "lower threat," can a grower be considered lower threat for surface water or groundwater, or must one be classified as a lower threat to both surface and groundwater?
- Who exactly "certifies" a management plan? Does such a plan have to be submitted to the Regional Board? How do we address "proprietary" or confidential business information?
- Additional information is needed regarding the possibility of 8 to 12 orders. How will multiple orders work with the existing coalition structure? Will new coalitions be formed?

Our members and Board of Directors have strong concerns about the proposed program and urge you to carefully consider the items listed above.

Sincerely,

Chuck Dudley
President

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3.3.30.1 Responses to Letter 33

33-1

Out of all the alternatives, except Alternative 1 (current program), Alternative 2 has the lowest estimated cost and may lead to the least economic impact. However, the Draft ILRP Economics Report indicates that the overall economic impacts of Alternatives 2, 4, and 6 may be similar. Further, Alternative 6 would not require individual farm water quality plans unless the proposed regional approach is ineffective (see Draft PEIR, Appendix A, page 155).

33-2

See Master Response 11.

33-3

See Comment Letter 111, Response 43.

33-4

Two or more exceedances of a water quality objective at the same location are the current triggers for management plans in the ILRP. This does not necessarily mean that only two samples within a 3-year period would trigger a management plan. Where the water quality standard is based on averaged conditions (e.g., 4-day, 30-day, annual), the collection of additional samples within the appropriate averaging period would be considered in evaluating whether exceedances have occurred. However, where only one sample has been collected during the appropriate averaging period (typically done to reduce costs), the results of the collected sample are generally considered representative of the averaging period. Development of the Long-term ILRP will consider clarification that appropriate averaging periods will be used when determining whether an exceedance has occurred.

33-5 (Form Letter 2)

This portion of the letter comprises Form Letter 2. See Responses to Comment Letter 9, Section 3.4, Individual and Form Letter Comments and Responses, in this Final PEIR.

3.4 Individual and Form Letter Comments and Responses

This section contains comment letters received from individuals (Table 3-5) and responses to those comments.

In addition, three form comment letters were received from individuals (Table 3-6). This section contains copies of the form letters received and responses to those comments. A master copy of each of the three form letters is followed by responses to the comments presented in that letter. Where signatories of a form letter provided additional comments with the form letter, those forms and responses to the additional comments are included following the master copy form letter responses.

Table 3-5. List of Comment Letters from Individuals

Letter	Comment Letter Signatory
87	Frank Alssberg, Bernard N. Bertagna, Mary Jane Bertagna, Berton Bertagna, Jason Bertagna, Callie Bonner, Joe Caito, Nicki Caito, Valere Goss, Bill Graves, Rhonda Graves, Alex Hardaway, Hans Jensen, Jay Krale, Robert Proe, Doly Sterette, Robert Stonneman, Kevin P. Sullivan, Cheryl Taylor, Tolle Taylor
86	Maria and Refugio G. Aguirre
30	Maria Barragan
35	Theresa J. Bright, Jeffreys Ranch
34	Ronnie Castillo
51	Romelia Castillo
31	William A. Chapman, The Clarence Scott Ranches
32	William A. Chapman, The Clarence Scott Ranches
7	David Cory
23	Bertha Diaz
85	Ismael Avila Estrada
84	Ismael Fernandez
122	Ellen Fickewirth
24	Mason Gallegos
46	Dan Hinrichs, P.E., Hinrichs Farms
79	Dan Hinrichs, P.E., Hinrichs Farms
138	Dan Hinrichs, P.E., Hinrichs Farms
52	Bud Hoekstra, BerryBlest Farm
5	Vance Kennedy
82	Nancy Lea
50	G. Fred Lee, Ph.D., G. Fred Lee and Associates; Anne Jones Lee, Ph.D., G. Fred Lee & Associates
66	Kent Vander Linden
6	Virginia Madveno
15	Maria Magana
16	Simona Magana
19	Adolfo Magana
141	A. J. Marcelli, Marcelli Farms

Letter	Comment Letter Signatory
39	Chris Marenco, Marenco Cattle Co., Inc.
17	Esther Martinez
18	Luis Medellin
14	Joanna Mendoza
25	Veronica Mendoza
22	Greg Merwin, Clarksburg Farmer
121	Trent Meyer
27	Josie Nieto
83	Linda Ormonde
21	Ana Karen Orozco
28	Maria Elena Orozco
8	Jesus Quevedo
26	Jesus Quevedo
40	Rebecca Quintana, Board Member, Stone Corral School District
38	Jessica Sanchez, Agua Youth Representative
114	Ryan Schohr
13	Joan C. Townsend
128	Harry Turiello
76	Tony Turkovich, Button and Turkovich
29	Lucino and Ana Vargas
20	Darrell Voortman, Irrigator
2	Kathryn Wilkins, Organic Farmer
103	John C. Zentner

Table 3-6. List of Form Comment Letters from Individuals

Letter	Comment Letter Signatory
Form 1—"Placer-Nevada-South Sutter-North Sacramento Sub-Watershed Group Ground Water Quality Monitoring"	
11	Herman Schindler
68	Anonymous
64	Lance and Gay Columbel
140	Phyllis Espinoza, Bushy Creek Nursery
65	Marian C. Jewett
130	Mike Pasner, Indian Springs Organic Farm
63	Don Rosa, Natomas Landowner and Farmer
Form 2—"Comments on Proposal for Long-Term Irrigated Lands Program"	
9	Kathleen Denison
73	John Barbee
135	Dennis Alan Bruggman
67	Franklin Espriella
71	William Fletcher, Trustee and Margaret C. Fletcher, Trustee

Letter	Comment Letter Signatory
77	Ken Gregory, Gregory Farms
75	Daniel Hrdy
74	Warren E. Johnston
131	S. Y. Monckton, Cattail Farms, Inc
69	Brian Paddock
133	Sarah W. Smith, Manager, Sewmawpaw Woodland, LLC
70	Alice B. Wohlfrom, Wohlfrom Family Farms
144	Mary Anne Wood
Form 3—"I have serious concerns about the proposed Long Term Irrigated Lands Program"	
81	Thea Wiedenroth
54	Jennifer Bittner
139	Stephen Brandenburger
59	Alfred Geerts
61	Andrew Johas
93	Roseann Lyons
55	Ed J. F. Mast
132	Van Overhouse
56	Virginia Plocker, H.D. Plocker Partnership
53	Helen C. Roberts and Stanley K. Roberts
62	John Studarus
60	Robert Suffin
57	Penelope Walgenbach
72	John Wilson
58	Alice B. Wohlfrom, Wohlfrom Family Farms

3.4.1 Letter 87—Ground Water Monitoring in the Sacramento Valley, Petition

Frank Alssberg, Bernard N. Bertagna, Mary Jane Bertagna, Berton Bertagna, Jason Bertagna, Callie Bonner, Joe Caito, Nicki Caito, Valere Goss, Bill Graves, Rhonda Graves, Alex Hardaway, Hans Jensen, Jay Krale, Robert Proe, Doly Sterette, Robert Stonneman, Kevin P. Sullivan, Cheryl Taylor, Tolle Taylor

Comment Letter IL87

Ground Water Monitoring in the
Sacramento Valley
Petition for additional consideration

We the undersigned growers and concerned residents of the Sacramento Valley would like to issue the following comments concerning ground water monitoring in the Sacramento Valley. In brief our concerns are as follows:

1. There are no pre-agriculture historical known levels of soluble salts or nitrates in California's aquifers. Therefore there is no meaningful baseline data. 87-1
2. It is unclear as to the proper tolerances that the board will find acceptable now or in the future. This is particularly unsettling. 87-2
3. No consideration is being made for quantities of materials entering aquifers from surface water, i.e. domestic well heads, improperly abandoned city wells, or wells near moving surface waters, such as the river or other streams during periods of high water. The drilling of new test wells may actually have a negative affect on soluble salts entering the ground water as we drill through old strata. 87-3
4. No consideration is being made for the amount of nitrates and salts entering the ground water from communities such as Paradise, Magalia, Cohasset and dozens of small west side communities. These are areas that have no water treatment plants but rely on septic systems. Older, failing and concentrated septic systems are known sources of nitrates in the ground water. 87-4
5. No consideration is being made to the variation in annual rainwater that would affect nitrate and salt concentrations throughout the year as the water table varies. 87-5
6. No consideration is being made to the various soil types or percolation rates that exist between parcels or landowners. 87-6
7. No consideration is being made to the contribution of soluble salts and nitrates coming from communities, golf courses, school districts, and numerous other entities that utilize fertilizers, usually without proper training or controls. 87-7
8. No consideration is being made to soil erosion, land movement, or surface geomorphism, plant absorption, natural plant decomposition, or any of a multitude of factors that can affect water impurity levels within a water table. 87-8

In spite of the factors mentioned above (and many others), farmers are asked to step up and pay for redundant and unnecessary studies, when in all likelihood they have the least affect on the aquifer. As growers and residents, we the undersigned, have always sought to maintain clean and pure water on the individual properties where we live and grow our crops. Therefore we feel the California Regional Water Quality Control Board should look to the actual sources of these salts and nitrates, if they even exist beyond historical levels. We also respectfully request additional time to spread the word throughout the agricultural community. We question the timing and motivations of these questionable studies.] 87-9

Name (Print and sign) Address (use additional pages as necessary)

1.

Continued of Water monitoring list of concerned residents
20 signatures per page

2. Kevin R. Sullivan 7211 Garden Hwy Chico Ca 95973
3. Callie Bowen
4.
5.
6
7.
8.
9.
10.
11.
12.
13.
14.
15.
16.
17.
18.
19.
20.
21.

For ILRP COMMENTS
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, Ca. 95814

Continued of Water monitoring list of concerned residents
20 signatures per page

2. Bernard N. Bertagna Bernard Bertagna
3945 Stevens Ave Chico Ca. 25928
3. Mary Jane Bertagna Mary Jane Bertagna
3945 Stevens Ave, Chico, CA 95928
4. Berton Bertagna
3362 Hegan Ln Chico CA 95973
5. Valerie Gross Valerie A Gross
7060 Estrella Dr Chico, CA 95928
6. Sassa Bertagna
787 Cornell Ave Chico CA 95928
7. 10 Lewis Cir Chico
Hans Jensen
8. Frank Alsdurf I
1438 Sleepy Hollow Lane Paradise, California
9. BILL GRAVES Bill Graves
1065 S. HILLCR AVE CHICO 95928
10.
11.
12.
13.
14.
15.
16.
17.
18.
19.
20.
21.

For ILRP COMMENTS
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, Ca. 95814

Continued of Water monitoring list of concerned residents
20 signatures per page

2. Robert Sommerville 382 Cahlen Ave Chico
3. Cheryl A Ott 3375 Hubbard Ln Chico 95928
4. Joe Taylor 3375 Hubbard Ln Chico 95928
5. Jay Kaddle 3217 GRAPE WAY CHICO
6. Robert Price 551 Pike Commerce
7. JOE CARTO 240 DENNISON N. FORT BRAGG
8. Nicki Carto 19518 Benson Lake Fort Bragg
9. Alex Hardaway 1387 Cass Rd Santa Rosa CA
10. Daly Smith 10636 S. Miller Ave Chico, CA
11. Rhonda Graves 10605 S. Miller Ave Chico, Calif 95928
12.
13.
14.
15.
16.
17.
18.
19.
20.
21.

For ILRP COMMENTS
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, Ca. 95814

3.4.1.1 Responses to Letter 87

87-1

The Central Valley Water Board acknowledges that there are no data representing pre-agricultural groundwater quality conditions, including nitrate levels, for the region. However, public health concerns, including "blue baby syndrome" (or methemoglobinemia), related to elevated nitrate concentrations in drinking water from groundwater sources, is well documented. Areas with high concentrations of dairy operations and agricultural fields that apply nitrogen-based fertilizers are known to have elevated and increasing levels of nitrate in the underlying groundwater basins.

See Master Response 1.

87-2

This comment cannot be responded to without more information regarding what is meant by *proper tolerances*.

87-3

The proposed ILRP would not involve drilling new wells for water supply; the analysis assumed that wellhead protection would be implemented at the local level where called for by the analyzed alternative. The Draft PEIR discusses potential effects on groundwater from infiltration of surface water and evaluates the potential improvements that could take place because of use of surface water as an irrigation supply and related impacts on groundwater quality (see Chapter 5, Section 5.9, Hydrology and Water Quality). All new groundwater monitoring wells constructed for any reason must conform to state and local well ordinances designed to prevent groundwater pollution from well construction and operation.

87-4

There are multiple sources that contribute contaminants that may reach groundwater throughout the Central Valley. A variety of conditions such as local soil type, percolation rates, annual rainfall, topography, vegetation, land use, and other local factors such as public use of fertilizers and presence of septic systems exist and exacerbate the conditions.

A successful Long-term ILRP will allow the Central Valley Water Board to adapt its approach to regulating discharges to groundwater, depending on local conditions and the significance of threats to beneficial uses.

87-5

See Comment Letter 87, Response 4.

87-6

See Comment Letter 87, Response 4.

87-7

See Comment Letter 87, Response 4.

87-8

See Comment Letter 87, Response 4.

87-9

See Master Response 12 and Comment Letter 95, Response 2.

The schedule for completing this CEQA process is dictated by an agreement entered into among the Central Valley Water Board, members of the environmental community, and representatives of the agricultural community, and approved by the Court. Nevertheless, the public involvement and review opportunities through the process of development of the CEQA analysis have been extensive. A summary of the ILRP development public involvement process can be found in the Draft PEIR, Chapter 2, Section 2.6.3, beginning at page 2-7.

3.4.2 Letter 86—Maria and Refugio G. Aguirre

Central Valley Regional Water Quality Control Board
Long-term Irrigated Lands Regulatory Program
Draft Programmatic Environmental Impact Report Public Comment Form

Comment Letter IL86

Name: Maria AGUIRRE y Refugio G.
Mailing Address: 15361 AVE 384 y
Telephone No. (optional): (559) 628-8090
Email (optional):

Comments/Issues: yo soy Recidente de la comunidad de Seville, en Seville no se puede beber, el agua de la llave, porque esta contaminada de Nitratos nosotros pagamos bastante por Mes por agua que no se puede beba ni usar, mi cantidad pagada por mes, es de $60.00 mas $32.00 de agua embotellada y Solamente somos 2, personas en casa. 86-1

Nosotros somos personas que trabajamos en el campo que nuestro Sabor es Dulce y no podemos seguir pagando por el precio de la contaminación y es por eso que me gustaria que la mesa Directiva Regional, Tome en cuenta los costos de la comunidad y desarrollen un plan para las tierras Irrigadas, que sea efectivo en prevenir y detener, la Contaminacion, de Nuestras fuentes de agua. 86-2

Please use additional sheets if necessary.

SUBMIT WRITTEN COMMENTS BY SEPTEMBER 27TH TO:

Mail: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com
Website: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

IL86

Maria Aguirre and Refugio G.
15361 Ave. 381

559-528-3090

I am a resident of the community of Seville. In Seville you cannot drink the tap water because it is contaminated with nitrates. We pay quite a lot every month for water that we can't drink or use. I pay $60 per month plus $32 for bottled water and there are only two of us at home.

We are field workers and our salaries are low. We cannot continue paying the price of contamination. That is why I would like the Regional Board to take the community's costs into consideration and develop a plan for irrigated lands that effectively prevents and stops the contamination of our water sources.

Maria Aguirre
15361 Ave. 381
Visalia, CA 93292

3.4.2.1 Responses to Letter 86

86-1

See Comment Letter 14, Response 1 and Comment Letter 123, Response 87.

86-2

This comment will be considered in development of the Long-term ILRP.

3.4.3 Letter 30—Maria Barragan

Dirección Regional de Control de Calidad de Aguas de Central Valley Comment Letter IL30
Programa Regulatorio a Largo Plazo de Tierras de Regadío
Formulario de Comentarios Públicos Anteproyecto Programático de Impacto Ambiental

Nombre: Maria Barragan
Domicilio: 12655 Ave. 406
Cutler, CA 93615
No. Teléfono (optativo):
Email (optativo):

Comentarios/Problemas:

La razon de mis Comentarios es para pedir que la Mesa Regional Cumpla Con su mandato y proteja nuestras fuentes de agua.

Yo soy residente de la Comunidad de Cutler. Nosotros no bebemos el agua de la llave porque esta Contaminada Con un pesticida.

Yo paga como $30.00 al mes por el servicio del agua. Sin embargo, despues tengo que ir a comprar agua embotellada. Asi es que al final del mes gasto pagando como $70.00 al mes - $30.- del cobro del agua y $40 por agua embotellada. Mi ingreso mensual es de $1,100 asi es que esto es ~~demasiado~~ muy Costoso para mi.

Por eso quiero que la mesa regional desarrolle un plan para las tierras irrigadas que sea efectivo en prevenir la Contaminacion.

Gracias,

Maria Barragan

30-1

Por favor utilize páginas extras si es necesario

PRESENTE COMENTARIOS POR ESCRITO EN O ANTES DEL 27 DE SEPTIEMBRE A:

Dirección: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com
Página Web: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

IL30

Maria Barragán
12655 Ave. 406
Cutler, CA 93615

I am writing to ask the Regional Board to fulfill its mandate and protect our water sources.

I am a resident of the Cutler Community. We do not drink water from the tap because it is contaminated with a pesticide. I pay about $30.00 per month for water service, but then I have to go buy bottled water. So at the end of the month I am paying about $70.00 per month – $30 for the water bill and $40 for bottled water. My monthly income is $1,100 so this is very expensive for me.

This is why I want the Regional Board to develop a plan for irrigated lands that will effectively prevent contamination.

Thank you,
[signed: Maria Barragan]

Maria Barragán
12655 Ave. 406
Cutler, CA 93615

3.4.3.1 Responses to Letter 30

30-1

See Comment Letter 14, Response 2.

3.4.4 Letter 35—Theresa J. Bright, Jeffreys Ranch

Comment Letter IL35

Jeffreys Ranch

Seeds, Tomatoes, Grain & Pecans

Don and Theresa Bright
13460 Desert Hills PL NE
Albuquerque NM 87111
505-323-2679

Established December 1876
2250 Lone Star Road
Williams CA 95987
Sam Reynolds, Farmer

September 21, 2010

ILRP Comments

Ms. Megan Smith

630 K Street

Sacramento CA 95814

RE: Comments on Proposal for Long Term Irrigated Lands Program

As the owner of a small farm in Colusa County, I am very concerned about the proposed Long Term Irrigated Lands Program, particularly the increased groundwater regulations.

It will place increased regulatory financial burdens on Sacramento Valley Agriculture that bear no correlation to the need for protection of water quality. Water quality testing has shown very few water quality problems due to agriculture, yet upwards of 97% of these costs would be funded by agricultural assessments. Additionally, the Recommended Program will have a disproportionate impact on smaller farming operations.

Groundwater quality in the Sacramento Valley is very good, with few problems associated with agriculture. Most farm families live on their farms, drinking and otherwise using the groundwater in close proximity to their operation. We like clean water, and we have a vested interest in keeping it clean. However, agriculture causes very few groundwater quality issues, and therefore should not bear such a disproportionate portion of the burden. 35-1

There are several state programs monitoring and protecting ground water already. In these tough economic times it would not be a sound economic choice to spend even the lowest estimated cost for this program when there are others already in place.

Our farm has participated in the Irrigated Lands Discharge program from its inception, even before it was mandatory. These new regulations are beyond reason, both from a scientific approach and from an economic one.

Sincerely,

Theresa J. Bright

Theresa J. Bright

3.4.4.1 Responses to Letter 35

35-1

See Comment Letter 41, Response 40 and Master Response 12. The Central Valley Water Board is aware that areas identified as vulnerable to leaching and runoff are primarily located in the San Joaquin and Tulare Basins.

3.4.5 Letter 34—Ronnie Castillo

Comment Letter IL34

September 13, 2010

Re: ILRP Comments

Dear Ms. Smith,

As a board member of the Orosi Public Utility District, I am writing to ask the Regional Water Board to develop an Irrigated Lands Regulatory Program that is strong enough to reduce fertilizer and pesticide pollution of our valley's water resources before any more communities lose their source of safe drinking water.

Today many thousands of people in the Central Valley cannot use the tap water in their homes for drinking or cooking due to nitrate contamination. In some areas in the valley, more than 20% of small public water systems are already unable to supply safe drinking water, including our many of our valley's schools, which have to use their shrinking educational budgets just to supply safe water to students and teachers. Many more communities are on the edge, having to pay for expensive nitrate treatment or close wells, limiting local drinking water supplies, and creating additional barriers to local economic development. Our water district just recently had to spend thousands of dollars to drill a new well and ensure our residents safe drinking water. This was due to high levels of nitrates in other wells.

34-1

The good news is that nitrate is a preventable problem that is largely caused by runoff from chemical fertilizer and animal waste. Furthermore, the board has the power and responsibility to develop a program that can be strong enough to reduce fertilizer and pesticide pollution of our valley's water resources before any more communities lose their source of safe drinking water.

For these reasons, I am asking the board to develop a program that includes: (1) a way to collect basic information from farms, such as how much fertilizer is being applied and how much nitrate is already in Valley water supplies; (2) individual farm plans for extremely high risk areas that include clear guidance for farmers on what practices are necessary to protect water from contamination; and (3) adequate enforcement mechanisms so that this program results in meaningful, quantified improvements to water quality.

A strong and effective Irrigated Lands Regulatory Program can stop further contamination of our drinking water sources before more communities are burdened by the high cost of cleanup. It can also ensure that future generations are able to find safe drinking water sources.

Sincerely,

Ronnie Castillo

3.4.5.1 Responses to Letter 34

34-1

See Comment Letter 40, Response 2 and Comment Letter 14, Response 1.

3.4.6 Letter 51—Romelia Castillo

Comment Letter IL51

September 13, 2010

Re: ILRP Comments

Dear Ms. Smith,

I am writing to ask the Regional Water Board to develop an Irrigated Lands Regulatory Program that is strong enough to reduce fertilizer and pesticide pollution of our valley's water resources before any more communities lose their source of safe drinking water.

Today many thousands of people in the Central Valley cannot use the tap water in their homes for drinking or cooking due to nitrate contamination. In some areas in the valley, more than 20% of small public water systems are already unable to supply safe drinking water, including our many of our valley's schools, which have to use their shrinking educational budgets just to supply safe water to students and teachers. Many more communities are on the edge, having to pay for expensive nitrate treatment or close wells, limiting local drinking water supplies, and creating additional barriers to local economic development.

The good news is that nitrate is a preventable problem that is largely caused by runoff from chemical fertilizer and animal waste. Furthermore, the board has the power and responsibility to develop a program that can be strong enough to reduce fertilizer and pesticide pollution of our valley's water resources before any more communities lose their source of safe drinking water. 51-1

For these reasons, I am asking the board to develop a program that includes: (1) a way to collect basic information from farms, such as how much fertilizer is being applied and how much nitrate is already in Valley water supplies; (2) individual farm plans for extremely high risk areas that include clear guidance for farmers on what practices are necessary to protect water from contamination; and (3) adequate enforcement mechanisms so that this program results in meaningful, quantified improvements to water quality.

A strong and effective Irrigated Lands Regulatory Program can stop further contamination of our drinking water sources before more communities are burdened by the high cost of cleanup. It can also ensure that future generations are able to find safe drinking water sources.

Sincerely,

Romelia Castillo

3.4.6.1 Responses to Letter 51

51-1

See Comment Letter 14, Response 1.

3.4.7 Letter 31—William A. Chapman, The Clarence Scott Ranches

Comment Letter IL31

The Clarence Scott Ranches
Family Owned and Managed since 1850

c/o William A. Chapman, x.h.z.
4038 Boulder Drive
Antioch, California 94509 – 6233

Telephone (925) 754 – 3595

September 22, 2010

Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

RE Long Term Irrigated Lands Regulatory Program - Increase Cost to Farm in California

Ms. Smith,

The proposed Long Term Irrigated Lands Regulatory Program (LT - ILRP) is of significant concern to my family members. The resulting **adverse** economic impact(s) and related costs to comply - will not produce or improve our farm production.

The Recommended Program is a major expansion of the current IRLP. Since over 90% of the increased costs (estimated to be as much as $66,000,000.00) to administer the LT - ILRP - which will be funded by agriculture through acreage fees assessed by the Regional Board. The LT - ILRP program will place an ever increasing regulatory and financial burden on the **Sacramento Valley agricultural** communities- COSTS **that bear no correlation** to the need **for the protection of water quality.** 31-1

The proposed Long Term Irrigated Lands Regulatory Program (LT - ILRP) will only duplicated existing groundwater monitoring programs and efforts - with the result of an increase Cost to agriculture and a waste of money. The Groundwater quality in the Sacramento Valley is **VERY GOOD** and with few problems associated with agriculture. Currently there are extensive groundwater monitoring programs in existence within the Sacramento Valley drainages. The history from the existing groundwater monitoring programs will support this statement. 31-2

The Economic Analysis is flawed and fundamentally wrong in its assumptions. Monitoring costs are underestimated and changes in the underlying assumptions used will result in substantial increased cost to be borne by the California Agriculture Communities. 31-3

The cost to administration the Long Term Irrigated Lands Regulatory Program would be better spent by funding the Williamson Act Program - That is If 'continued FARMING in CALIFORNIA' is a part of your FINAL OBJECTIVE.

Sincerely,

William A. Chapman

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3.4.7.1 Responses to Letter 31

31-1

See Master Response 17.

31-2

Mechanisms for addressing groundwater are dependent upon the alternative chosen to implement the Long-term ILRP. Alternatives 4 and 6 would require participation in a regional groundwater monitoring program and would involve coordination with other groundwater monitoring programs to avoid duplicative efforts (see Draft PEIR, Appendix A, page 158). The staff recommendation to implement regional groundwater monitoring (Alternative 6) rather than site-specific monitoring was made, in part, to lessen the potential finical burden on agriculture (see goal 3 on page 92 of the Draft PEIR, Appendix A).

31-3

See Master Response 17.

3.4.8 Letter 32—William A. Chapman, The Clarence Scott Ranches

Comment Letter IL32

The Clarence Scott Ranches
Family Owned and Managed since 1850

c/o William A. Chapman, x.h.z.
4038 Boulder Drive
Antioch, California 94509 – 6233

Telephone (925) 754 – 3595

September 22, 2010

Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

RE Long Term Irrigated Lands Regulatory Program - Increase Cost to Farm in California

Ms. Smith,

The proposed Long Term Irrigated Lands Regulatory Program (LT - ILRP) is of significant concern to myself and my family members. The resulting **adverse** economic impact(s) and related costs to comply - will not produce or improve our farm production.

The Recommended Program is a major expansion of the current IRLP. Since over 90% of the increased costs to administer the LT - ILRP will be funded by agriculture through acreage fees assessed by the Regional Board. The program will place an ever increasing regulatory and financial burden on the **Sacramento Valley agriculture** communities- COSTS **that bear no correlation** to the need **for the protection of water quality.** 32-1

Now that the State of California is terminating funding for the **Williamson Act** - the increase fees, fines, assessments that will result from the **LT - ILRP** - will have the potential impact - and logical justification - for an increase in the loss of California farmland. Is that the FINAL OBJECTIVE of this administrative program??

Will *China* be able to provide adequate farm produce to replace the farm products lost due to resulting conversion of farmland in California to houses? 32-2

Will the displaced agrarians be your 'first hires' to augment the increased demand and need for the desk bound consultants, who will write and administer the LT - ILRP?

Sincerely,

William A. Chapman

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3.4.8.1 Responses to Letter 32

32-1

See Master Response 17.

32-2

See Master Response 11.

3.4.9 Letter 7—David Cory

Note: This letter has been withdrawn from consideration by the commenter.

3.4.9.1 Responses to Letter 7

7-1

No response needed.

3.4.10 Letter 23—Bertha Diaz

Comment Letter IL23

Dirección Regional de Control de Calidad de Aguas de Central Valley
Programa Regulatorio a Largo Plazo de Tierras de Regadío
Formulario de Comentarios Públicos Anteproyecto Programático de Impacto Ambiental

Nombre:	Bertha Diaz
Domicilio:	13922 Florida Ave Dos Palos, Ca 93647
No. Teléfono (optativo):	(559) 352-9552
Email (optativo):	

Comentarios/Problemas:

El problema en mi comunidad es que el agua esta contaminada con Nitratos. La agua nos afecta porque el agua es necesaria para beber y cocinar. Nuestra comunidad es de gente trabajadora, que trabajan en los campos de sol a sol. En nuestra comunidad tratamos de luchar por el agua limpia como podamos. El agua es muy importante para sobrevivir, especialmente en el Valle Central que el clima es muy caliente y para los trabajadores del campo es muy peligroso para ellos si no tienen agua limpia para beber. Espero que con esta carta entiendan mis razones porque creo que el problema del agua debe de ser arreglado porque es un deber no un privilegio. Muchas gracias!

23-1

Atentamente,
Bertha Diaz

Por favor utilize páginas extras si es necesario

PRESENTE COMENTARIOS POR ESCRITO EN O ANTES DEL 27 DE SEPTIEMBRE A:

Dirección: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com

Página Web: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

II.23

Bertha Diaz
13922 Florida Ave.
E. Orosi, CA 93647

559-358-9353

The problem in my community is that the water is contaminated with nitrates. The water affects us because water is necessary for drinking and cooking. We are a community of working people who work in the fields from dawn to dusk. In our community we try to fight for clean water as best we can. Water is very important for survival, especially in the Central Valley because the weather is very hot and it is dangerous for the field workers if they do not have clean water to drink. I hope you understand my reasons from this letter because I believe that the water problem must be fixed because it is a right and not a privilege.

Thank you very much!

Sincerely,
Bertha Diaz

Bertha Diaz
13922 Florida Ave.
E. Orosi, CA 93647

3.4.10.1 Responses to Letter 23

23-1

See Comment Letter 14, Response 1.

3.4.11 Letter 85—Ismael Avila Estrada

Dirección Regional de Control de Calidad de Aguas de Central Valle,
Programa Regulatorio a Largo Plazo de Tierras de Regadío
Formulario de Comentarios Públicos Anteproyecto Programático de Impacto Ambiental

Comment Letter IL85

Nombre: Ismael Avila Estrada
Domicilio: 23573 Parso Ave
Ducot CA 93218
No. Teléfono (optativo): 559.534.2280
Email (optativo):

Comentarios/Problemas: Hola pa la comunidad de ducot estamos teniendo mucho problemas como agua con nitratos con el olor asufre con el color a lodo podrido es un agua demasiado contaminada me gustaria que analisieran un poquito el el agua y le dieran tiempo para poder usar el agua para algo porque no nos sirve para nada estra completo agua par todo y estra pasando toda vida el vil alto porque todo los meses se nos quier enfermar Gracia por el tiempo que nos dedican Ismael Avila E

85-1

Por favor utilize páginas extras si es necesario.

PRESENTE COMENTARIOS POR ESCRITO EN O ANTES DEL 27 DE SEPTIEMBRE A:

Dirección: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com
Página Web: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

11.8S

Ismael Avila Estrada
23373 Paso Ave
Ducor, CA 93218

559-534-2290

I'm speaking on behalf of the community of Ducor. We are having a lot of problems like water with nitrates, with the smell of sulphur, with the color of rotten mud. The water is too contaminated. I would like for you to analyze the water a little and devote time to it in order to be able to use the water for something because it doesn't help us at all to be buying water for everything and still paying the high bill because [illegible] from us every month. Thank you for the time you devote to us.

Ismael Avila E.

Ismael Avila Estrada
23373 Paso Ave
Ducor, CA 93218

3.4.11.1 Responses to Letter 85

85-1

See Comment Letter 14, Response 1 and Comment Letter 123, Response 87.

3.4.12 Letter 84—Ismael Fernandez

Dirección Regional de Control de Calidad de Aguas de Central Valle
Programa Regulatorio a Largo Plazo de Tierras de Regadío
Comment Letter IL84
Formulario de Comentarios Públicos Anteproyecto Programático de Impacto Ambiental

Nombre: Ismael Fernandez
Domicilio: 20366 Ave 256 EXETER Ca 93221
No. Teléfono (optativo): 559-217-2283
Email (optativo):

Comentarios/Problemas:

Mi Comentario es que nesecitamos mas proteccion para nuestras familias porque lo tengo mi propio pozo de Agua pero no podemos tomar el Agua por que tiene Nitratos y es un peligro para Nuestra Salud
No estoy de acuerdo que se preocupen mas por protegernos.

84-1

Por favor utilize páginas extras si es necesario.

PRESENTE COMENTARIOS POR ESCRITO EN O ANTES DEL 27 DE SEPTIEMBRE A:

Dirección: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814
Email: ILRPcomments@icfi.com
Página Web: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

IL84

Ismael Fernández
20366 Ave. 256
Exeter, CA 93221

559-217-2283

My comment is that we need more protection for our families because I have my own water well but we can't drink the water because it has nitrates and is dangerous for our health.

I agree that there should be more concern for protecting us.

Ismael Fernández
20366 Ave. 256
Exeter, CA 93221

3.4.12.1 Responses to Letter 84

84-1

The support for the protection of water quality will be considered in the development of the Long-term ILRP.

3.4.13 Letter 122—Ellen Fickewirth

Comment Letter IL122

September 27, 2010

Central Valley Regional Water Quality Control Board
ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Subject: Irrigated Lands Regulatory Program – Ground Water Quality Monitoring

Dear Ms. Smith:

We are growers in Placer and Sutter Counties and members of the Placer-Nevada-South Sutter-North Sacramento (PNSSNS) Sub-Watershed Group. We understand that the Central Valley Regional Water Quality Control Board has plans to duplicate regulations that are already in place and to charge additional fees. However, in today's economic conditions, it would be in the best interest of the government and in the best interest of the agriculture community to not duplicate regulations.

We are already being regulated and paying fees for existing water quality programs which may increase if the proposed Long Term Irrigated Lands Regulatory Program is implemented. The California Department of Pesticide Regulation has regulations in place to protect groundwater. Our local counties, cities, and water agencies and districts also have groundwater data and monitoring programs to protect groundwater. 122-1

We are all concerned with sustaining our valuable groundwater and are doing what we can to protect it. When developing additional regulations, please consider the groundwater protection measures that are currently in place, as well as the various costs that farmers are already enduring. Thank you for your attention to this matter.

Sincerely,

Ellen Fickewirth

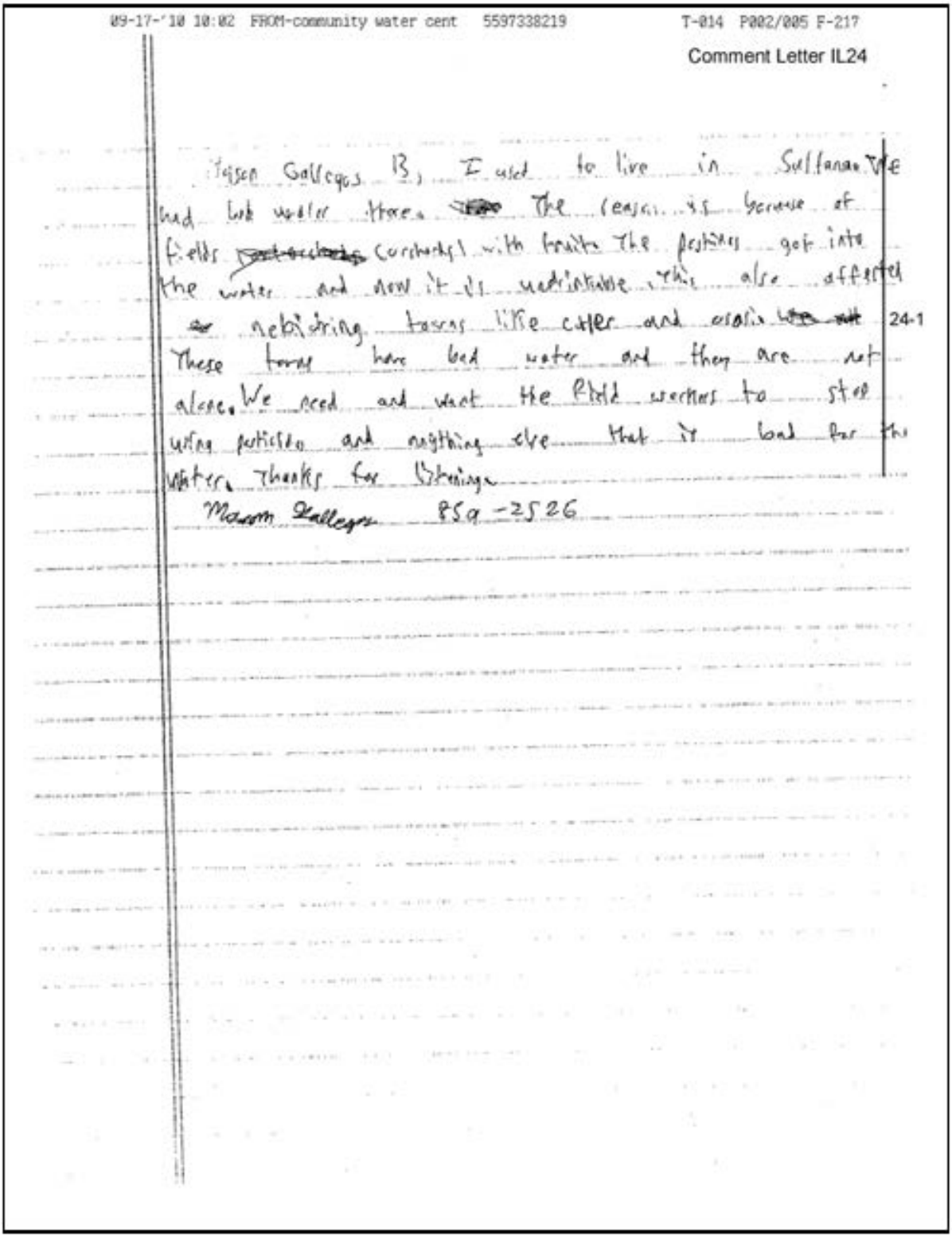
Ellen Fickewirth
2780 N. Dowd Road
Lincoln, CA 95648

3.4.13.1 Responses to Letter 122

122-1

See Comment Letter 99, Response 25.

3.4.14 Letter 24—Mason Gallegos



09-17-'10 10:02 FROM-community water cent 5597338219 T-014 P002/005 F-217

Comment Letter IL24

Jesse Gallegos B, I used to live in Sultana. We had bad water there. The reason is because of fields ~~[illegible]~~ crosswalks with trucks the pesticides got into the water and now it is undrinkable. This also affected neighboring towns like cutler and orosi ~~[illegible]~~ 24-1
These towns have bad water and they are not alone. We need and want the field workers to stop using pesticides and anything else that is bad for the water. Thanks for listening.

Mason Gallegos 854-2526

3.4.14.1 Responses to Letter 24

24-1

See Comment Letter 14, Response 1.

3.4.15 Letter 46—Dan Hinrichs, P.E., Hinrichs Farms

Comment Letter IL46

Hinrichs Farms
4541 Luneman Road
Placerville, CA 95667
530-626-4802

September 25, 2010

ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

RE: Comments on the Draft PEIR and Technical Memorandum Concerning the Economic Analysis

Dear Ms. Smith:

The following comments have been prepared and are being submitted by Dan Hinrichs, P.E. as owner of Hinrichs Farms. Hinrichs Farms is a member of the El Dorado County Agricultural Water Quality Corporation. The EDCAWQC is a member of the Sacramento Valley Coalition. Dan Hinrichs was the representative for El Dorado in the Stakeholder's meetings held as part of the long term program. The EDWCAWC will be submitting comments under a separate submittal.

Draft PEIR:

1. On page 1-11, Table 1-1, Vegetation and Wildlife, BIO-1, mitigation by compensating for permanent loss of wetlands may not be possible due to limited water resources. 46-1
2. On page 1-13, agricultural resources – add – Loss of irrigated agriculture will reduce carbon sequestration through loss of photosynthesis. 46-2
3. On page 1-13, agricultural resources, add – Loss of irrigated agriculture will reduce fire breaks in foothill and mountain regions 46-3
4. On pages 3-12 and 3-13, Section 3.3.3 – Monitoring Provisions provide for surface water monitoring and groundwater monitoring. There are many areas, especially in the foothills and mountains where there is no defined water table (DWR bulletin 118). In these 46-4

areas groundwater is found in fractured hard rock or in limited areas of perched water. Individual domestic wells are low producing wells often 200 feet deep or greater. Due to these conditions it is nearly impossible to determine source or destination of groundwater movement. Therefore, it is impossible to determine sources of groundwater contamination. There should be a provision of alternative monitoring such as vadose zone monitoring or mass balance of constituents added to cropped areas. Use of monitoring wells will not answer questions regarding impact of irrigated agriculture on groundwater. 46-4 cont'd

5. On page 3-16, Monitoring Provisions, same comment as above
6. On page 3-23, nutrient tracking, second bullet, the reference is incorrect. The Western Fertilizer Handbook is published by the California Plant Health Association. 46-5
7. On pages 3-24 & 25, same comment as #4 above. 46-4 cont'd
8. On page 3-28, same comment as #4 above.
9. Chapter 4 – This chapter is too brief in that there are major differences within watersheds especially in foothill locations on both the east and west sides of the central valley. Foothill and mountain locations have major differences in agricultural practices. Agricultural areas have more breaks for riparian areas than do most valley locations. 46-6
10. On page 5-1, Table 5.1-1, Tailwater recovery system – these systems will increase salt loadings due to evaporation and evapotranspiration. 46-7
11. On page 5-2, Table 5.1-1, Pressurized irrigation – Setting up irrigations systems can be in some circumstances exceed usual field preparation activities. 46-8
12. On page 5.10-6& & 7, Assessment Methods, bottom of page 6 and top of page 7, there is an assumption that converted land will primarily be to other types of agriculture. In the upper foothills and mountain areas, the only crop that can be grown is irrigated pasture or hay crops. There are no other crops that can replace these. Pasture and hay crops are not large revenue producers; therefore, conversion due to high costs for program implementation is more likely than other crops. 46-9

Economic Analysis:

1. Table 2-5, Atrazine is missing from this table 46-10

2. Addition – In Section 2.3.1 add list from DPR of pesticides of concern in groundwater (published annually). 46-11
3. Table 2-8 provides excellent large scale values but actual numbers vary considerable – perhaps a range of cost/acre values would be more appropriate. 46-12
4. Table 2-9 – Pressurized irrigation system number is low except for large scale systems. It would be more appropriate to show a range of values. Provide values for drip irrigation or low volume spray irrigation. Also, there is a significant difference between solid set sprinkler irrigation and portable sprinkler irrigation systems. 46-13
5. Table 2-15 – The annual cost of a monitoring well depends on the acreage covered. The annual cost of monitoring for 3 wells, with quarterly monitoring and reporting with licensed professional stamp will be $10,000 - $12,000/year. The cost per acre will depend on the size of the area being monitored. 46-14
6. Most of the economic analysis has been very well done. 46-15

Please do not hesitate to call if there are any questions or if you need additional information.

Sincerely,

Dan Hinrichs, P.E.

CC: Carolyn Mansfield, President ELCAWQC
Doug Leisz, Vice President ELCAWQC

3.4.15.1 Responses to Letter 46

46-1

The Central Valley Water Board agrees that the competition for water resources in the state will continue to be a factor affecting the feasibility of conserving and restoring wetlands. At this time there is no evidence to suggest that wetland creation is infeasible.

46-2

See Master Response 15.

46-3

As the location and nature of possible land conversions resulting from implementation of the ILRP are unknown, and may not occur, assuming such possible conversion would lead to non-irrigated fallowed lands and an appreciable loss of fire breaks is speculative. However, the Central Valley Water Board is concerned about the potential loss of fire breaks and will consider any specific information provided during the development of any orders that would be applicable to the areas referenced. Also see Master Response 14.

46-4

The Central Valley Water Board anticipates that the implementing mechanisms for the Long-term ILRP (i.e., general orders, WDRs) will be developed to allow for a tiered approach to establishing monitoring programs. Accordingly, in areas where groundwater monitoring results exist or are likely to be inconclusive, the Board would have the flexibility to establish other monitoring methods to more effectively evaluate discharges.

46-5

The reference is correct as written.

46-6

As indicated in the Draft PEIR, Chapter 2, Introduction, (see page 2-3) and permitted by the State CEQA Guidelines (Section 15150), the ECR, which provides a detailed description of the environmental setting for the ILRP area, is wholly incorporated by reference. The brief overview provided in Chapter 4, Environmental Setting, and the additional resource-specific information presented in individual resource sections of Chapter 5, Environmental Impacts and Mitigation Measures, acknowledge the differences present among agricultural practices and other conditions of foothill regions relative to the valley floor, where relevant to the discussion.

Also see Master Response 7.

46-7

The impact analysis specifically discusses the impacts from use of tailwater recovery systems (see Draft PEIR, Chapter 5, Environmental Impacts and Mitigation Measures, Section 5.9, Hydrology and Water Quality, page 5.9-15).

46-8

At a programmatic level, the analysis assumption concerning pressurized irrigation system-related fieldwork is accurate as stated in Table 5.1-1, "Fieldwork involved in setting up new irrigation system does not substantially exceed usual field preparation activities."

46-9

The comment refers to what is anticipated to be a very small portion of potentially converted agricultural land. The Draft PEIR (page 5.10-7) recognizes this condition by stating "It is reasonable and logical to assume that, while some portion of the affected farmland would be converted to nonagricultural use, a majority of the lost acreage would not be converted to a nonagricultural use but instead would be used to produce a crop that would require lower compliance costs and generate sufficient revenue to stay in agricultural production." However, the Central Valley Water Board shares the concern that costs could impact agricultural viability and will take those concerns into account in the development of the Long-term ILRP.

46-10

See Master Response 17.

46-11

See Master Response 17.

46-12

See Master Response 17.

46-13

See Master Response 17.

46-14

See Master Response 17.

46-15

This comment will be considered in development of the Long-term ILRP.

3.4.16 Letter 79—Dan Hinrichs, P.E., Hinrichs Farms

Comment Letter IL79

Hinrichs Farms
4541 Luneman Road
Placerville, CA 95667
530-626-4802

September 27, 2010

ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

RE: Comments on the Staff Report

Dear Ms. Smith:

The following comments have been prepared and are being submitted by Dan Hinrichs, P.E. as owner of Hinrichs Farms. Hinrichs Farms is a member of the El Dorado County Agricultural Water Quality Corporation. The EDCAWQC is a member of the Sacramento Valley Coalition. Dan Hinrichs was the representative for El Dorado in the Stakeholder's meetings held as part of the long term program. The following comments were not endorsed by the EDCAWQC.

Overall the report is very well done. There are only a few issues as noted below:

1. The staff recommended alternative is a bit confusing with the explanation provided. A more concise summary of the alternative would be helpful. 79-1
2. A problem with the current program, which may still be in place with the long term program, is data analysis and interpretation. There have been circumstances where a constituent standard was exceeded and a management plan prepared. The exceedance source was shown to be from a non-agricultural source. However, the exceedance was still on the record. It should not be. Part of this is a lack of experienced staff in agriculture (e.g. an agricultural engineer) or in determining fate and transport of constituents of concern in agriculture. There also needs to be more experience 79-2

and understanding of constituent movement in the vadose zone. Soil scientists have this basic knowledge. 79-2 cont'd

3. Monitoring wells in the foothill and mountain areas is a problem issue due to the lack of groundwater tables. There is groundwater but it is present in fractures of rock with no known connection between pockets of water. This situation makes it impossible to develop monitoring wells that will show sources of contamination or changes in groundwater constituent levels with application of management plans. Alternative methods of confirmation of management plan results should be allowed. This includes vadose zone monitoring or mass balance of constituents applied versus constituents removed by crop uptake. 79-3

4. It would be helpful to re-convene the stakeholders group for a session to present the staff alternative and answer questions about it. 79-4

Please do not hesitate to call if there are any questions or if you need additional information.

Sincerely,

Dan Hinrichs, P.E.

CC: Carolyn Mansfield, President EDCAWQC
Doug Leisz, Vice President EDCAWQC

3.4.16.1 Responses to Letter 79

79-1

A concise summary will be prepared in development of the Long-term ILRP.

79-2

The Central Valley Water Board agrees that interpretation of water quality data can be challenging, especially when the data are primarily from samples collected in receiving waters and limited data are available that characterize the actual waste discharges from irrigated lands. The Board has a highly skilled staff of engineers, scientists, and geologists, who continually work to improve understanding of water quality and the effects of agricultural discharges on water quality. See Comment Letter 102, Response 10.

79-3

See Comment Letter 46, Response 4.

79-4

The Stakeholder Advisory Workgroup was formed to assist the Central Valley Water Board in developing Long-term ILRP alternatives and evaluation measures. The Workgroup finished this work in August 2009. If there is sufficient interest among Workgroup members, the Board is open to holding future discussions regarding the recommended alternative.

3.4.17 Letter 138—Dan Hinrichs, P.E., Hinrichs Farms

Comment Letter IL138

DJH ENGINEERING
PLACERVILLE, CA
530-626-4802

TECHNICAL MEMORANDUM

Date: **October 20, 2010**

To: **Adam Laputz**

From: **Dan Hinrichs**

Subject: **Irrigation Costs** **Project No: 337**

I have commented on the economic analysis with my official comments to Jones & Stokes. I am still concerned that I may have not expressed my concerns adequately. Table 2-9 shows annualized costs for several management practices. The first concern is that there should be a range of costs for each item, not just the 2 listed ones. I haven't found the assumptions for determining how these costs are annualized. How many years and at what interest rate?

Most importantly, there should be capital costs shown for making these improvements. This is the cost that the grower will have to meet immediately. Government grants can help but do not cover 100% of the cost. One grower in El Dorado County is converting his vineyard from overhead sprinklers to drip irrigation. He has 25 acres of vines with 5 currently irrigated by drip irrigation. He will be installing drip irrigation on 8 acres this year with the remaining 12 acres next year. His cost is approximately $30,000 for materials and labor. This computes to $1500/acre. The vineyard operation is one where the return on the crop would allow financing to cover this cost. 138-1

There are many growers in the valley and lower foothills that rely on irrigation ditches for water delivery. If they convert to a pressure system, they will need to purchase pumps and install pressure pipelines where they had low pressure or gravity pipes. I don't believe that this cost is included in the analysis.

However, there are lower value crops (as discussed in the economic report) where conversion from a surface irrigation to pressure irrigation would not be feasible

1 Memorandum| DJH Engineering

and significant more costly than the value given in Table 2-9. There is an irrigated pasture near the community of Cool where the irrigation system was installed a number of years ago. The NRCS came out and said that they would need to install a completely new irrigation system. There are problems with the old one but it appears that some modifications may take care of the problems. The point is that even with a government grant there is no way that a new irrigation system could be financed with the return from this operation (owner leases to cattleman).

I believe that there may be times where someone decides that a pressurized system is needed when it may not be. Surface irrigation systems in the valley and some mountain regions may be operating well with no contamination of surface waters. Separating cattle from surface streams will provide a significant improvement to water quality without the expensive cost of sprinkler irrigation.

Who makes that decision? Is the person making that decision really qualified to do so? We have issues with vineyards deciding between sprinklers and drip irrigation. There are a number of variables in making the decision but with a vineyard there is enough of a return that the new system could be financed. However, with an irrigated pasture the return cannot pay for the investment.

138-1 cont'd

3.4.17.1 Responses to Letter 138

138-1

See Master Response 17. Also see Comment Letter 99, Response 7. These comments will be considered in the development of the Long-term ILRP.

3.4.18 Letter 52—Bud Hoekstra, BerryBlest Farm

Comment Letter IL52

Comments

On

The Draft

IRRIGATED LANDS REGULATORY PROGRAM

Programmatic Environmental Impact Report

Submitted by

Bud Hoekstra

BerryBlest Farm

September 2010

1

PREFACE TO DRAFT PIER COMMENTS, ILRP

Dr Sandler, former medical director of NASA's space operations, convincingly told a group of medical students why he chose to dedicate his life to the medicine of space travel: "Space," he said, "is our last hope for a clean environment."

It is easier to comprehend the irony than the truth of his words. Agriculture like many of the technologies employed on this planet has built-in self-destruct mechanisms. The plow furrows, the furrows erode, the erosion is a consequence of delivering food to the table. Not only does soil erode, but the quality of streams, rivers, lakes and aquifers erode. Nobody dreams of enduring wheat fields with perennial plants that never needs sowing and a fuel-less endeavor of bringing in the sheaves with a wave of a Harry Potter wand. There are but two options, two roads to take: one, people all over the world can write an epitaph for the resource-robbing plow by inventing practices that preserve the environment intact, or people can find a means to migrate to a fresh, new, green planet to take the place of this one.

The uncomfortable truth is this: The science of agriculture studies the land – mankind's little green food-producing acre, and the science of ecology studies the land – God's little green acre of wild food plants that nourish all God's creatures. The difference between them, between mankind's plowed field and God's wild glen is that God's green acres do not wither and die over time from mere use. God uses the land to grow things; mankind uses the resource up, contaminating, polluting, spoiling. The sustainability of wild nature has yet to be invented for the farm.

Farmers and ranchers generally share an attitude about what they do for a living: they must make money. Aside from money-making practices, if their offspring are to survive on this planet for generations to come, they will have to drink water and eat food just as their parents did, and they will have to use the same land and the same rivers for food and water, and the only way this can happen is if the enterprise of the farm not only produces food but stewards the soil and the water. Developing and adopting these stewardship practices is the future of farming.

For the sake of enlightenment, science and economics use measures. A farmer's success is gauged by the thickness of his wallet; the success of modern agriculture is measured by the abundance of food. The new agriculture requires a retooling of measures. "Entropy" is a borrowed term, borrowed from science, and means the degree of organization or disorder. Soil is molecular chaos. Sunlight, water and the chemistry of a green plant organizes the molecules of that chaos into a tomato. A tomato is molecularly organized soil; soil is tomatoes in entropy. Economics as a discipline languishes to measure the resource base. On the one hand, ag economists measure easily the productivity of the soil in bushels or the increased productivity in dollars. When tomatoes in entropy are washed away by erosion, no one has a measure for the lost production capacity in years. No one has a measure of a farm's half-life. The proverbial joke is that asphalt is the land's last crop – no sustainability!

Clean water will be tomorrow's **farm**'s first and foremost product.

2

Don't let the preface to my comments on the draft PIER fool you, because I am reiterating what many experts in the field of agriculture are saying. We need a kinder, gentler agriculture, one that restores the integrity to the land, one that minimizes pollution, and regulation must be a part of the process to reach that endpoint. I am in agreement that regulation is a necessary evil of out times. I am in agreement that an ILRP program is needed. My comments focus on whether or not the ILRP can work, can be made to work, can bring about and effect clean water for California.

My comments on the draft PIER come in three parts:

- A brief and disingenuous look at past mistakes by the Water Board staff in applying the ILRP
- A look at real-life scenarios of agricultural pollution to see how the ILRP would play out, if the scenarios had happened in California or were to happen in California in year 2012.
- A simple economic analysis of the ILRP and assessment of whether or not the ILRP meets the objectives that the ILRP professes to meet

Underlying the ILRP is the principle that farms shed pollution in the form of eroded soil, nutrient waste and the excess of economic poisons (pesticides) that exude from crop-growing fields. All farms pollute, whether they irrigate or not, and the focus of the ILRP is irrigated land. The EPA has written a handbook for state regulators that details this science, the science of agricultural pollution, that includes irrigation management is a big part of the solution. MANAGEMENT MEASURES FOR THE CONTROL OF NONPOINT POLLUTION FROM AGRICULTURE captures what we know of the underlying pollution from agriculture.

Generally summed up, we can identify these premises:

*agricultural activities pollute

*the pollution affects surface run-off and groundwater

*the ILRP focuses on 1. Nonpoint source pollution (rather than point source NPDES pollution) and 2. Farms that irrigate.

52-1

The scope of the ILRP has not always been clear to me, because the Water Board staff has defined "irrigation" as a bucket of water thrown on an almond tree from which nuts will eventually be harvested for commercial sale. That definition is almost quoted verbatim from a staff member answering a question on what irrigation means. But other staff members have waffled on such lines drawn as cover crops: cover crops and pasture are not harvested for commercial sale, yet both are sometimes irrigated. One staffer has determined that irrigated pasture in a commercial operation calls for a waiver whereas an irrigated cover crop on an organic farm does not. The ILRP staff has given ambivalent answers to the question of access roads. The last determination was that any intermingling of waste with run-off from an irrigated field means that the access road is included in the waiver. Otherwise it is not. Access roads are often sprayed with herbicides, occasionally pesticides if the roadside vegetation is a pest incubator, and an order issued by the Water Board for waiver-holders covered the contamination from

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roadside spraying. The whole idea of what's covered by the waiver and what's covered by BMP's to meet the terms of waiver is fuzzy. ↑ 52-1 cont'd

A CENTURY OF THOUGHT ON WATER RESOURCES

1902: "To tear treasures out of the bowels of the land was their desire, with no more moral purpose at the back of it than there is in burglars breaking into a safe." Joseph Conrad

1905: "The nation ... behaves badly if it leaves the land poorer to those who come after it. That is all I mean by the phrase 'conservation of natural resources.' Use them, but use them so that as far as possible our children will be richer, and not poorer, because we lived." Teddy Roosevelt

1909: "One hundred years from now, as people look back on our continent ... we shall be heartily damned for the reckless uses we have made of our soil, the loss of our forests, the weakening of watershed values..." Ray Wilbur [US Secretary of Interior]

2010: "We cannot protect our natural resources without rules and farming practices that are created to work together to look after our soil and water." Jerry DeWitt [Leopold Center for Sustainable Agriculture]

2010: "Regulation is not all bad ... We're fortunate in this area that we haven't had to deal with regulation yet, but we know it's coming. It is all around us. We know water tables are dropping, and we need to give the Ogallala Aquifer time to recharge." Donny Carpenter [Texas grower, corn and cotton; June/July PROGRESSIVE FARMER]

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Past mistakes in applying current program, alternative 1

What's on paper seldom matches with what's on the ground, and I want the Water Board to see how Alternative 1, the current ILRP, played out.

I applied for a waiver. [I filed and NOI, notice of intent to comply, under the auspices of resolution R5-2003-0105.]

As part of my application, I had to prepare a general report on my farm and report my farm's past history, a very checkered past. In my NOI I revealed the farm's involvement in drug production as part of the history that I was required to report. I reported it. I was brief and to the point in my NOI acknowledging the past history of drug production that I was to report. I did not belabor the matter, although I can write volumes on it, on my experiences, on my effort to cope with the legacy of drug production and follow the mandates of the law.

I applied for the waiver and I noted the past history of drug production, which is not an agricultural activity and not something I was personally involved with or responsible for.

52-2

I wrote, mentioning the drug matter: "The 23-acres of BerryBlest Farm lie in the sun-baked foothills of Calaveras County at approximately 2800 feet, draining for the most part into Humbug Creek, 5% or so into Wet Creek, both are tributaries of the South Fork of the Mokelumne River, an un-dammed wild and scenic river. The domain of vegetation on the land is black oak, Mariposa Manzanita, and Ponderosa Pine with a scattering of blackberries, buckbrush, cedar, and other species, mostly vegetating the ravines. Humbug Creek is biologically unique with its blanket of ferns and ground cover. The farm was established in 1989 with horses, hogs, chickens, goats and a breeding kennel of hunting dogs. For about six years, the farm operated with a cash crop of meth and stolen Toyota parts that ended in a [sheriff's] raid, a [bank] repossession [of the farm] and an eviction of the squatters [doper community]."

I noted the farm's history of methamphetamine: "As meth, alcohol and other drugs shadowed the [doper] community..."

Having noted the history of illicit drugs, I proceeded to name the constituents of concern that quite possibly would emanate from my farm: I named soil erosion as a possibility; my nutrient program consisted of manure and cover crops. I noted the possibility that estrogenic substances residing in the manure could seep into surface water from my fields. I did not know for sure if I would or if I could test for estrogen within the detection limits necessary, but I supposed BMP's could contain the potential risk the loss of estrogen.

The NOI was straightforward: I put down the farm's past history, noting the drug operations, and I named the potential contaminants, sediment and estrogen, that could leach. I did not think drug production had any relevance to my farming practices. Clanlabs make point-source, or NPDES,

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pollution, because they are manufacturing not agriculture. Drug production is not an agricultural pursuit and subject to a waiver of discharge requirements. My farming practices would not affect the legacy of trace wastes from drug operations that came before me by other owners.

The Water Board replied with a waiver in their NOA: "Based on a review of your NOI and General Report, you have met the conditions for coverage..."

But the NOA stepped way out of line and attached burdensome conditions in regard to past drug produiction as terms of the waiver,

The time table explicit in the NOA was horrific:

I received the NOA approximately on May 1, 2005. Thirty days later, I was to produce a Farm Evaluation Report and a Monitoring and Reporting Program Plan. In addition, I was to begin water-testing at once in the middle of the dry summer, to quote the NOA, "on or before 1 July 2005," and I was to turn in the 12-month completed annual report in eight months, due "March 1, 2006." This was just impossible on the face of it. It smacked of regulatory molestation, and probably was.

This rush-to-meet time schedule pre-empted quality design of the MRP and imposed upon my time so as to create a hardship, and the time table was designed to be an imposition and to hurt me for my effort to obey the law and protect water. And nobody at the Water Board cared if I had the time to do the technical reports right.

52-2 cont'd

Although the time table was imposition enough, the NOA added a lalicious do-you-in "kill" clause to the Waiver. The NOA required me to "take into consideration the potential contaminants that may exist as a result of the toxic litter, drug production and other activities that occurred prior to the purchase of the property by the current owner." I was supposed to test for meth wastes in the seasonally dry Humbug Creek or in the still flowing Mokelumne River. I had to monitor and report on meth wastes and truck tires littering my farm! Or test for the unknown substances in jars that I turned in on hazmat collection day!

Aside from the question of who is responsible for the wastes, the question remains whether such NPDES waste falls into the waiver program or triggers WDR's. Meth wastes are not nonpoint pollution and meth wastes are not agricultural. Waivers cover nonpoint agricultural waste. The results of esting and finding meth wastes in the river would not be expected to alter my farming practices one iota. Yet, the NOA states plainly that if the condition of drug-testing my farm is not met, my waiver would be terminated: "If it is determined that conditions of the Waiver are not being met..."

The NOA ignored my bid to test for estrogenicity on my farm.

Putting all of this into one nut shell, this is what the waiver comes down to: I had 30 days to phone CalEPA and ask how to make meth and to phone the USDA NRCS and ask about farming practices that would prevent contamination from a defunct meth operations and abandoned tires that once were situated near or on my farm.

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So I appealed the condition of the waiver, but there was no appeal from the time line. In 30 days I had to have two reports handed in, meth being the subject, and in 60 days, the conditions of the NOA were reaffirmed on appeal. My farm had to track the untrackable – legacy wastes from a defunct clanlab, abandoned tires from a chop shop, and unknown substances, like the tissues and organs floating in fluids.

I tackled the conditions as best I could and I did the paperwork as fast as I could, first by an appearance at CalEPA's headquarters in Sacramento where I could ask how to make methamphetamine. I didn't know how to make it. CalEPA was ahead of the game. Their Dr.'s Black (OEHHA) and Shumaker (TSCA) had collaborated on the issue of meth waste and compiled the information on the Web. Basically, the byproducts are ephemeral and evanesce: red phosphorus, though explosive, degrades in a few days to phosphates in open air, just like the phosphates found in fertilizer and manure. Benzene reportedly evaporates into the air with a half-life of two-hours in water. An EPA administrator unclipped the pages of meth waste posted on an OEHHA wallboard and photocopied them for me with the express wish that I turn in the pages in my technical reports, noting the environmental fate of each chemical. I did.

OEHHA and TSCA collaborated on the meth wastes, and both shared the information on their separate Web sites. CalEPA gave me OEHHA pages. The Water Board retorted demanding the TSCA pages.

Cranking out reports at 3 am in the morning, I sent the technical reports, or what would barely pass for reports, to the Water Board and the reply came back: the reply urged me to use TSCA rather than OEHHA information. The TSCA person at CalEPA had walked me down to the OEHHA office, and when nobody was available there to help me, the administrator ran off copies of the posters on the OEHHA wall showing the environmental fate of meth wastes. TSCA information and OEHHA information were the same information, a product of collaboration by the two CalEPA agencies. But the Water Board criticized my use of OEHHA information and demanded TSCA's.

52-2 cont'd

In my technical reports, I emphasized that estrogen may be a constituent of concern, not meth, and that estrogen testing would make a better condition of the Waiver. That was ignored.

In my reports I noted that amphetamines are found on all farms. Nutmeg is 20% myristicin and the liver metabolizes myristicin into amphetamine. Carrots have myristicin and theoretically one could get high on amphetamine by sitting down and eating a ton of carrots at a single sitting. Likewise, decomposers of compost bins where carrots rot, where left-over foods with nutmeg are thrown, fields where carrots are grown, undergo decomposition by bacteria that turn myristicin into amphetamine. The point was this: my farm was unlikely to harbor a legacy of wastes from drug operations based on CalEPA guidelines, but likely to have naturally occurring amphetamines that could, except for their tiny, miniscule amounts, be bonafide constituents of concern. The Water Board had no standards or detection limits for the precursor and intermediate chemicals that I was asked to monitor for.

A year of months later new faces at the Water Board retracted the drug-residue condition as inappropriate and saddled me with the condition of testing for pesticides even though I don't use them. I wasn't asked to test for estrogen, which I named as a constituent of concern, I was asked to test for

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pesticides that I don't use. Drift makes pesticides ubiquitous, and my farm would shed pesticides present because of drift from other farms that use them. My farm does not use chemical pest control on its crops, and the presdence of drift chemicals would not alter my farming practices to reduce drift. The amount of drift residue would be in the thousandths of pictograms and virtually unmeasurable within the detection limits of EPA-approved methods.

The point of this review of past Water Board sins is this: were any of the objectives of the ILRP being met in the issuance of my waiver? The answer is NO.

- In keeping with the ILRP objectives, would conditions of my waiver ensure that state waters meet applicable water quality objectives?"
- Did the NOA encourage the implementation of management practices on my farm "that improve water quality." Or did the busy work of the monitoring condition merely jeopardize the economic viability of my farm and steal my time?.
- Incentives? The conditions of the Waiver slapped me with useless paperwork, a disincentive. The time table was a disincentive. I had already employed BMP's and minimized my waste discharge when I submitted my NOA. The current program, if anything, punished my effort to protect the waters of the state.
- Testing for meth waste was inappropriate, and since I had already used a suite of BMP's, since I had had the NRCS engineer Mike Grinstead evaluate the conservation plan of my farm, there was no scrap of coordination in evidence between Water Board programs and the NRCS program. [In fact, the Water Board did not recognize a conservation standard BMP called "Code 500 Obstruction Removal" that I used and reported in my general report and in a letter threatened to cite and fine me for using this BMP.]

52-2 cont'd

The current program or "Alternative 1" in practice failed to meet the stated objectives of the ILRP. It just didn't work! Whether or not the other alternatives will fare better in the hands of the Water Board is anyone's guess.

At the stakeholder workgroup meeting, Joe Karkowski heard requests for a template of farm BMP's and promised a template to the workgroup. No template was forthcoming. Mark of Jones and Stokes at the draft PIER review meeting on September 10th heard my request for a template of groundwater BMP's.

I've made my point about the failure of Alternative 1, the current ILRP, to meet the objectives of the ILRP on the ground.

But I am providing another example, one of many, that illustrates the failure again.

Here we go: approved, accepted and proprietary methods. The Hach Chemical Company's Master Catalog for Complete Water Analysis 2010-2011 (page 18) distinguishes "US EPA approved" methods of analysis from "US EPA accepted" methods of analysis. EPA-approved methods are recorded in the

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The Hach Difference

EPA-Approved Methods

The EPA has evaluated and approved new technological methods developed by Hach Company. All EPA-Approved methods are cited in the Federal Register and compiled in the Code of Federal Regulations at 40 CFR 136 and CFR 141.

EPA-Accepted Methods

The EPA has reviewed Hach methods and accepted them for use in compliance monitoring. These methods are defined by EPA as Acceptable versions of previously approved methods. These methods are generally not published in the Federal Register or in the Code of Federal Regulations. A facsimile of the EPA- Acceptance letter is available upon request.

Hach Equivalent Methods

All EPA-Approved methods have specification criteria built into their procedural steps. When an approved or accepted EPA method has been packaged by Hach from the EPA reference method as a test method that meets or exceeds these specification criteria, these methods are deemed to be equivalent for use in EPA compliance monitoring (40 CFR 136.6). EPA does not normally issue equivalence letters of packaged reference methods. Hach maintains the formulation, procedure, and data demonstrating equivalency and is available upon request.

Hach Approved Methods

These methods may be used for compliance monitoring. They have either obtained an EPA Approval or Acceptance letter, or the method is a packaged product that follows an EPA Reference method and is deemed Equivalent by Hach. With any method used for compliance reporting, always consult with your local regulatory authority.

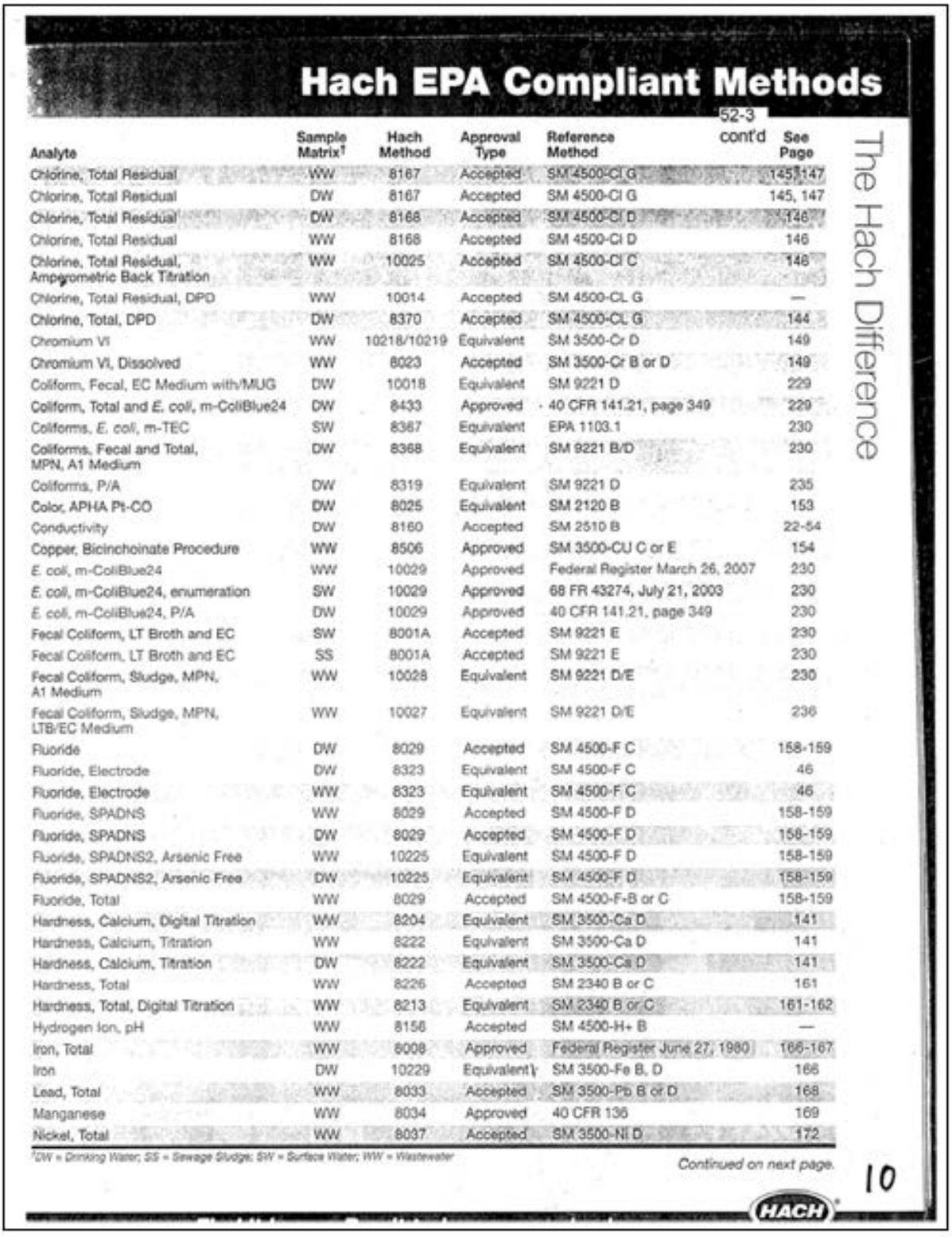
52-3

Hach has more EPA approved methods than any other supplier!

Analyte	Sample Matrix†	Hach Method	Approval Type	Reference Method	See Page
Acidity, as $CaCO_3$	WW	8010	Accepted	SM 2310 B(4a)	130
Acidity, Methyl Orange, Digital Titration	WW	8201	Equivalent	SM 2310 B(4a)	130
Acidity, Phenolphthalein, Digital Titration	WW	8202	Equivalent	SM 2310 B(4a)	130
Alkalinity, Digital Titration	WW	8203	Equivalent	SM 2320 B	132
Alkalinity, Titration	DW	8221	Equivalent	SM 2320 B	132
Ammonia as Nitrogen	WW	10205	Equivalent	EPA 350.1, SM 4500-NH_3 G or H	134
Ammonia as Nitrogen	WW	10205	Equivalent	EPA 350.1, SM 4500-NH_3 G or H	134
Ammonia as Nitrogen	WW	10205	Equivalent	EPA 350.1, SM 4500-NH_3 G or H	134
Ammonia Nitrogen, Electrode	WW	10001	Equivalent	SM 4500-NH_3 D, E, F, or G	47
Ammonia Nitrogen, Known Addition, Electrode	WW	10002	Equivalent	SM 4500-NH_3 D, E, F, or G	47
Ammonia, as Nitrogen	WW	8038	Accepted	SM 4500-NH_3 C	134
Arsenic, Total	WW	8013	Accepted	SM 3500-As B or C	137
BOD	WW	8043	Accepted	SM 5210 B	139
Chemical Oxygen Demand	WW	8000	Approved	40 CFR 136	151
Chemical Oxygen Demand	WW	8231	Accepted	EPA 410.3 or SM 5220 C	—
Chemical Oxygen Demand	WW	8000	Equivalent	EPA 410.3 or SM 5220 C	151
Chemical Oxygen Demand	WW	8000	Equivalent	EPA 410.3 or SM 5220 C	151
Chloride, Mercuric Nitrate	WW	8206	Accepted	SM 4500-Cl C	143
Chloride, Mercuric Nitrate, Digital Titration	WW	8206	Accepted	SM 4500-Cl C	143
Chloride, Silver Nitrate	WW	8225	Accepted	SM 4500-Cl B	144
Chlorine, Free	DW	10231	Equivalent	SM 4500-Cl G	145
Chlorine, Free	DW	8021	Accepted	SM 4500-CL G	145-147
Chlorine, Free Amperometric Titration	DW	8334	Equivalent	SM 4500-CL D	145
Chlorine, Free Amperometric Titration	WW	8334	Equivalent	SM 4500-CL D	145
Chlorine, Free & Total	WW	10232	Equivalent	SM 4500-Cl G	145
Chlorine, Total Amperometric Forward Titration	DW	10026	Equivalent	SM 4500-CL D	146

†DW = Drinking Water; SS = Sewage Sludge; SW = Surface Water; WW = Wastewater

Al Cl Cl Cl Cl Cl Ar Cr Cr Cr Cr Cr Cr Cr Mi Cr Cr Cr Cr E. E. E. Fe Fe Fe Al Fe LT Fl Fl Fl Fl Fl Fl Fl Fl Fl Fl Hz Hz Hz Hz Hz Hy Iro Iro Le Mi Ni TDV



Hach EPA Compliant Methods

52-3 cont'd

Analyte	Sample Matrix[1]	Hach Method	Approval Type	Reference Method	See Page
Chlorine, Total Residual	WW	8167	Accepted	SM 4500-Cl G	145-147
Chlorine, Total Residual	DW	8167	Accepted	SM 4500-Cl G	145, 147
Chlorine, Total Residual	DW	8168	Accepted	SM 4500-Cl D	146
Chlorine, Total Residual	WW	8168	Accepted	SM 4500-Cl D	146
Chlorine, Total Residual, Amperometric Back Titration	WW	10025	Accepted	SM 4500-Cl C	148
Chlorine, Total Residual, DPD	WW	10014	Accepted	SM 4500-CL G	—
Chlorine, Total, DPD	DW	8370	Accepted	SM 4500-CL G	144
Chromium VI	WW	10218/10219	Equivalent	SM 3500-Cr D	149
Chromium VI, Dissolved	WW	8023	Accepted	SM 3500-Cr B or D	149
Coliform, Fecal, EC Medium with/MUG	DW	10018	Equivalent	SM 9221 D	229
Coliform, Total and *E. coli*, m-ColiBlue24	DW	8433	Approved	40 CFR 141.21, page 349	229
Coliforms, *E. coli*, m-TEC	SW	8367	Equivalent	EPA 1103.1	230
Coliforms, Fecal and Total, MPN, A1 Medium	DW	8368	Equivalent	SM 9221 B/D	230
Coliforms, P/A	DW	8319	Equivalent	SM 9221 D	235
Color, APHA Pt-CO	DW	8025	Equivalent	SM 2120 B	153
Conductivity	DW	8160	Accepted	SM 2510 B	22-54
Copper, Bicinchoinate Procedure	WW	8506	Approved	SM 3500-CU C or E	154
E. coli, m-ColiBlue24	WW	10029	Approved	Federal Register March 26, 2007	230
E. coli, m-ColiBlue24, enumeration	SW	10029	Approved	68 FR 43274, July 21, 2003	230
E. coli, m-ColiBlue24, P/A	DW	10029	Approved	40 CFR 141.21, page 349	230
Fecal Coliform, LT Broth and EC	SW	8001A	Accepted	SM 9221 E	230
Fecal Coliform, LT Broth and EC	SS	8001A	Accepted	SM 9221 E	230
Fecal Coliform, Sludge, MPN, A1 Medium	WW	10028	Equivalent	SM 9221 D/E	230
Fecal Coliform, Sludge, MPN, LTB/EC Medium	WW	10027	Equivalent	SM 9221 D/E	236
Fluoride	DW	8029	Accepted	SM 4500-F C	158-159
Fluoride, Electrode	DW	8323	Equivalent	SM 4500-F C	46
Fluoride, Electrode	WW	8323	Equivalent	SM 4500-F C	46
Fluoride, SPADNS	WW	8029	Accepted	SM 4500-F D	158-159
Fluoride, SPADNS	DW	8029	Accepted	SM 4500-F D	158-159
Fluoride, SPADNS2, Arsenic Free	WW	10225	Equivalent	SM 4500-F D	158-159
Fluoride, SPADNS2, Arsenic Free	DW	10225	Equivalent	SM 4500-F D	158-159
Fluoride, Total	WW	8029	Accepted	SM 4500-F-B or C	158-159
Hardness, Calcium, Digital Titration	WW	8204	Equivalent	SM 3500-Ca D	141
Hardness, Calcium, Titration	WW	8222	Equivalent	SM 3500-Ca D	141
Hardness, Calcium, Titration	DW	8222	Equivalent	SM 3500-Ca D	141
Hardness, Total	WW	8226	Accepted	SM 2340 B or C	161
Hardness, Total, Digital Titration	WW	8213	Equivalent	SM 2340 B or C	161-162
Hydrogen Ion, pH	WW	8156	Accepted	SM 4500-H+ B	—
Iron, Total	WW	8008	Approved	Federal Register June 27, 1980	166-167
Iron	DW	10229	Equivalent	SM 3500-Fe B, D	166
Lead, Total	WW	8033	Accepted	SM 3500-Pb B or D	168
Manganese	WW	8034	Approved	40 CFR 136	169
Nickel, Total	WW	8037	Accepted	SM 3500-Ni D	172

[1]DW = Drinking Water; SS = Sewage Sludge; SW = Surface Water; WW = Wastewater

Continued on next page.

The Hach Difference

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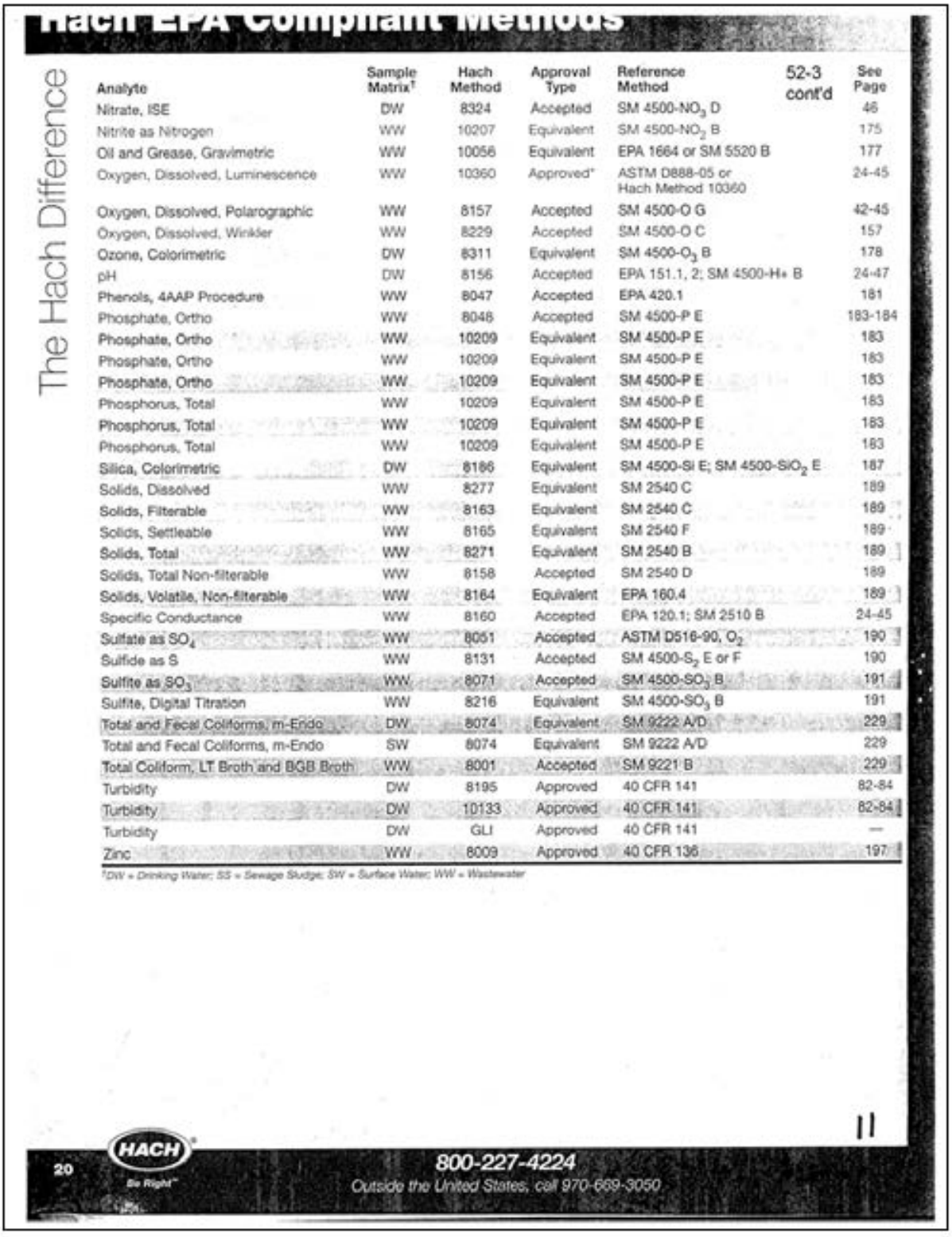
HACH



Hach EPA Compliant Methods

The Hach Difference

52-3 cont'd

Analyte	Sample Matrix†	Hach Method	Approval Type	Reference Method	See Page
Nitrate, ISE	DW	8324	Accepted	SM 4500-NO_3 D	46
Nitrite as Nitrogen	WW	10207	Equivalent	SM 4500-NO_2 B	175
Oil and Grease, Gravimetric	WW	10056	Equivalent	EPA 1664 or SM 5520 B	177
Oxygen, Dissolved, Luminescence	WW	10360	Approved*	ASTM D888-05 or Hach Method 10360	24-45
Oxygen, Dissolved, Polarographic	WW	8157	Accepted	SM 4500-O G	42-45
Oxygen, Dissolved, Winkler	WW	8229	Accepted	SM 4500-O C	157
Ozone, Colorimetric	DW	8311	Equivalent	SM 4500-O_3 B	178
pH	DW	8156	Accepted	EPA 151.1, 2; SM 4500-H^+ B	24-47
Phenols, 4AAP Procedure	WW	8047	Accepted	EPA 420.1	181
Phosphate, Ortho	WW	8048	Accepted	SM 4500-P E	183-184
Phosphate, Ortho	WW	10209	Equivalent	SM 4500-P E	183
Phosphate, Ortho	WW	10209	Equivalent	SM 4500-P E	183
Phosphate, Ortho	WW	10209	Equivalent	SM 4500-P E	183
Phosphorus, Total	WW	10209	Equivalent	SM 4500-P E	183
Phosphorus, Total	WW	10209	Equivalent	SM 4500-P E	183
Phosphorus, Total	WW	10209	Equivalent	SM 4500-P E	183
Silica, Colorimetric	DW	8186	Equivalent	SM 4500-Si E; SM 4500-SiO_2 E	187
Solids, Dissolved	WW	8277	Equivalent	SM 2540 C	189
Solids, Filterable	WW	8163	Equivalent	SM 2540 C	189
Solids, Settleable	WW	8165	Equivalent	SM 2540 F	189
Solids, Total	WW	8271	Equivalent	SM 2540 B	189
Solids, Total Non-filterable	WW	8158	Accepted	SM 2540 D	189
Solids, Volatile, Non-filterable	WW	8164	Equivalent	EPA 160.4	189
Specific Conductance	WW	8160	Accepted	EPA 120.1; SM 2510 B	24-45
Sulfate as SO_4	WW	8051	Accepted	ASTM D516-90, O_2	190
Sulfide as S	WW	8131	Accepted	SM 4500-S_2 E or F	190
Sulfite as SO_3	WW	8071	Accepted	SM 4500-SO_3 B	191
Sulfite, Digital Titration	WW	8216	Equivalent	SM 4500-SO_3 B	191
Total and Fecal Coliforms, m-Endo	DW	8074	Equivalent	SM 9222 A/D	229
Total and Fecal Coliforms, m-Endo	SW	8074	Equivalent	SM 9222 A/D	229
Total Coliform, LT Broth and BGB Broth	WW	8001	Accepted	SM 9221 B	229
Turbidity	DW	8195	Approved	40 CFR 141	82-84
Turbidity	DW	10133	Approved	40 CFR 141	82-84
Turbidity	DW	GLI	Approved	40 CFR 141	—
Zinc	WW	8009	Approved	40 CFR 136	197

†DW = Drinking Water; SS = Sewage Sludge; SW = Surface Water; WW = Wastewater

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Federal Register and listed in the CFR, Code of Federal Regulations. EPA-accepted methods usually bear a letter of acceptance from one EPA region or another.

What does the ILRP want in the way of methods to be used in monitoring by the farmer?

Order R5-2003-0826: "The coalition group shall used EPA-approved methods..."

Order R5-2003-0827: "The Discharger shall use EPA approved methods."

The words are plain enough. However, after I was ordered to test for drug production contaminants, after I bought EBMUD data on pesticides in the Mokelumne River to satisfy the new condition of monitoring for pesticides, I was told that I had to monitor run-off directly from my farm (above and below, even though I'm on the divide with no "above.") and that I had to do lab-testing in accordance with SWAMP and produce a QAPP to assure quality in testing above and below my farm.

The Order says "EPA approved" but the attachment A says "EPA accepted."

"This...will be achieved by using accepted methodology (e.g. US EPA.)"

Plus, the SWAMP template requires "List the nonstandard methods that will be used ..."

52-2 cont'd

The Order itself is a jot confusing: "The submittal of an MRP is a condition of the Waiver ... The Detailed Report is a condition of the Conditional Waiver... A QAPP is required to be submitted with the Detailed Report for the MRP Plan to be complete..." Nowhere is "the Detailed Report" explained (capitalization appears in the order.)

The Clean Water Act section 319, I believe, provides for the use of alternative methods of testing. The Water Board requires me to submit a Monitoring and Reporting Plan (MRP) and the QAPP is a part of the Detailed Report which is a part of the Monitoring and Reporting Program and Monitoring and Reporting Program Plan (MRP Plan.)

Compliance is like hunting down a hidden entrance to a Pharaoh's tomb!

The Water Board staff ordered me to use the SWAMP to prepare the QAPP. Chris Jimmerson gave me a specific website to visit and review the guidelines of the SWAMP. I went to the website – I photocopied the page that said the SWAMP had been removed. After repeated conversations with the staff, I went to Assemblyman Tom Berryhill and asked for assistance. His aide contacted Chris Jimmerson and returned with the web address and his demand for a QAPP. I told the aide that there is nothing at the web address he was given. The aide got on the computer and in a few moments replied, "You're right. I'll go talk with them." In a week, I get a letter telling me I've got an extension of time and that I should use the hard copy of the SWAMP. At the Water Board's website, SWAMP is identified as "surface water ambient monitoring program" whereas in the order SWAMP is an anagram of "state-wide ambient monitoring program."

SWAMP required that I "describe the purpose of the study." In other words, why was I monitoring. The EPA says that monitoring is necessary in adaptive management to measure the effectiveness of

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BMP's. In addition, I would explain why the Water Board staff insists that I test above and below my field where there is no above, except for rainfall. The Order mandates "...MRP Plan must include ... measurements of water quality parameters such as ... dissolved oxygen ..." Chris Jimmerson of the Water Board demanded that I test for DO above and below my field.

Dissolved oxygen is useful parameter in measuring the health of streams. When oxygen levels fall below 5 mg per liter, fish start to die. Saturation levels are temperature-dependent, and the maximum oxygen that cold water will hold is about 15 mg per liter. The DO level can drop below its saturation level (at a given temperature) if contaminants of water combine with dissolved oxygen (such as dissolved iron that rusts) or if eutrophic water (contaminated with nutrients) has a bloom of algae that breathes the oxygen and uses it up. Algae depresses oxygen levels in one part of its daily cycle and supersaturates water during photosynthesis when oxygen is released. Riffles in a stream can churn air into water and raise oxygen levels.

However, with rain falling on a field, or runoff exiting a field, DO is a useless parameter in measuring the quality of water or the effectiveness of BMP's. I discussed this with the lab I use for testing, and the lab recommended a different staffer at the Water Board whom I called. He overrode the requirement that I test my rainfall (reference site) and instead use a comparison site on BLM land,a although testing DO is impractical at both locations.

52-2 cont'd

Using BMP's to reduce runoff, my field shed little water. I took pictures during the 100-year-storm of a glaze of water across the land from my porch doorstep. The photos were astounding as a sheet of water mantled the ground. In the field, the rough surface and beginnings of a cover crop plus deep tillage had the combined effect of trapping the rainfall in puddles that soaked in and even at the low-point in the field, a small trickle of runoff poured when I pieced the containing furrow with my hand. As the rain turned to snow, a dramatic effect appeared: the land was covered with snow, a landscape of white, except the field where the water pooled because of deep tillage and water being of warmer mass modified the surface temperature causing the snow to melt as it hit. The field was dirt, uncovered by snow.

In summary, how did the ILRP work with changing staff faces? I was to monitor for contaminants of drug production, I was to monitor for pesticides that I don't use, I was to monitor rainfall for dissolved oxygen using a SWAMP website that wasn't there.

As Dr Sandler had postulated, a new planet is our only hope for a clean environment.

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CASE HISTORY: How might the ILRP Work in a Future Scenario

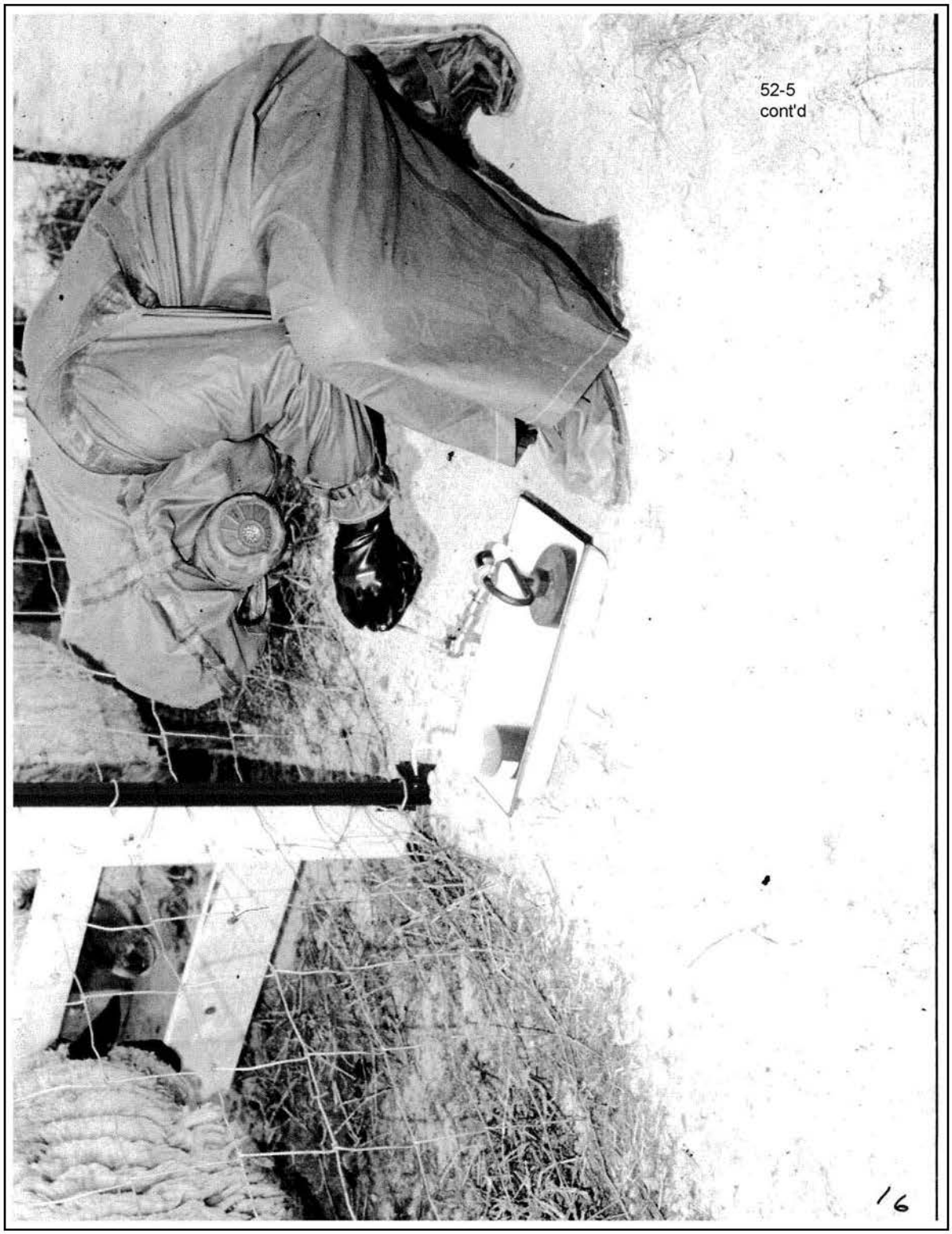
To see how the ILRP alternatives might play out on the ground, I chose between two incidents that showcase nonpoint pollution on agricultural land. Water Penny Farm in Virginia mulched with picloram-tainted hay, and the broad-levaed crops of this CSA died. That incident was rejected because I could obtain no images or determine the final outcome of picloram leaching. My second choice was Skull Valley Disease that illustrates agricultural nonpoint pollution and the BMP's practiced to prevent groundwater contaimination.

6000 head of sheep died in Skull and Rus watersheds during the Ides of March, 1968. The chemical that poisoned them was a weapon-grade oil perfected from a pesticide so toxic that it was removed from the market a year after its release. A duster loaded with the oil sprayed a grid with the chemical on Utah's Dugway Proving Ground and as the plane ascended into the sky, the nozzle malfunctioned and misted the clouds of a brewing storm. Contaminated snow fell on a 30-mile-long swath within the two valleys, contaminating water and grass. Sheep are the only domestic animal that can eat snow and survive, and the sheep ate snow and contaminated forage, their carcasses dropping over many square miles of range. 52-4

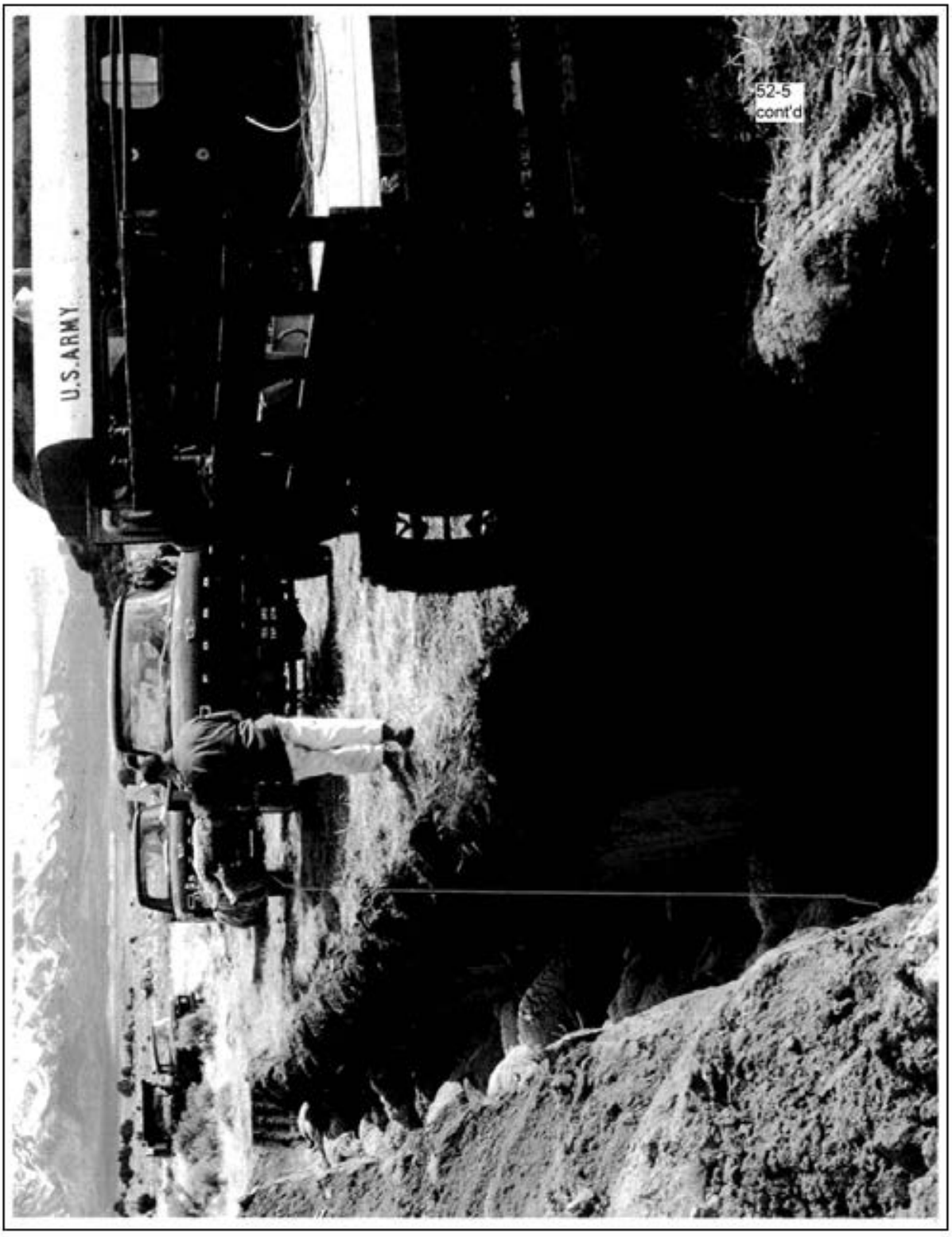
The phosphonothionate, a relative of malathion, persisted in the environment, was concentrated in the carcasses of the dead sheep and combined in effect with other OP pesticides sprayed by ranchers in the Valleys. The 6000 deaths were of unknown cause at first, originally blamed on toxic plants like rabbit brush, and quickly related to a persistent organophosphate poison and a storm.

In the aftermath, roads had to be cut to reach the streams where carcasses lay, the carcasses had to be hauled out and disposed of – buried in trenches positioned so that groundwater was not contaminated.

The following photo enlargements are actual photos of the event known as Skull Valley Disease.




52-5
cont'd



The basic premises of the ILRP and the Clean Water Act, as well as the Porter-Cologne Act, are these:

*All farms pollute, some heavily, some lightly.

*The pollution migrates, gravitates or otherwise moves beyond the farm gate.

*The pollution impacts the water ecology beyond the farm gate.

The EPA urges the use of BMP's to reduce the pollutants, stop their transport and mitigate their impacts.

Unmentioned facts about California agriculture that do not appear in the draft PIER are, for the sake of example, all wells tested in the Fresno area are tainted with agricultural pesticides – the study is two-three decades old.

The dollar does not discipline farmers to work for the common good. For the common good to evolve in agriculture, it takes ethics (sustainable agriculture, e.g.) or certification (organic or biodynamic certification, e.g.) or regulation (ILRP, e.g.)

Clean water was once an ecosystem service. Having designed the ecosystem out of the farm, farmers and society at large will have to replace that lost service. The ILRP is an attempt to design clean water back into the operation a farm.

Regulation tends to be specifications for performance to micromanage practices. The EPA's vision is adaptive management that sloughs off the regulatory straight-jacket and allows more freedom to employ a variety of BMP's that work to restore water quality

Non-use of a chemical input is the best BMP.

Almost everybody in the world drinks water daily, and in drinking water, drinks contaminants produced on a farm.

The Skull Valley Incident was

- Nonpoint pollution
- Agricultural – affected irrigated and nonirrigated range land
- Required the use of BMP's.

Although the contamination occurred on agricultural land, the source of the contamination was drift from a non-agricultural operation.

52-4 cont'd

Under alternative 1, the dead sheep could be buried in any old trench. Under the remaining alternatives, the trench would have to be located so that groundwater would not be contaminated.

Under all the alternatives, only irrigated range would be subject to BMP's. Non-irrigated land is not covered by the BMP.

The discharger was unknown, so that the impacts were known before the discharger was known. Ranchers were presumed responsible at first.

Had there been standards in place, drift may have exceeded those standards for OP levels in surface water.

The drift would test out as an OP, if monitoring for OP pesticides were done.

The drift would have a combined effect with OP pesticides in the environment. Ranchers who subsequently sprayed OP pesticides would find out perchance that the safe levels of use are no longer safe because of the persistent OP from the drift.

I am not sure that I see differences in the alternatives in a response to Skull Valley Disease. Certainly, whatever the alternative, farms would fail the standard toxicity test using Daphnia.

52-4 cont'd

MARKETING the ILRP

The simplest marketing analysis names four groups that receive the ILRP regulations.

Group One: These are the guys and gals who farm with BMP's. They know the BMP's and they use them. The ILRP is about clean water, and clean water is about BMP's. Though the ILRP calls them dischargers, they discharge minimally and the discharges are presumed to be below basin standards in all cases. Generally these farmers are compliance-oriented, and they would meet clean water goals with or without regulation. More than 5% of farmers are organic in the Central Valley, and when Biodynamic farmers and sustainable agriculturalists are factored in, about 10% of the farmers in the Region occupy this category. These BMP-savvy farmers farm with a conscience to protect water quality.

Group Two: Group two is aware of the problem of water quality, expects regulations to come but knows nothing about BMP's or bringing the farm into regulatory compliance. Probably as many as half of all California farmers belong to this group; they know they have to do something but they don't know what to do. They would if they could, but they have to be educated into the art of compliance, because they can't accomplish it of their own knowledge. Many of the farmers who occupy this category have no science background, do not comprehend how farms pollute and belittle the notion that they pollute, that their farms contribute to the degradation of stream quality in any significant way.

52-6

Group Three: Group Three members oppose government. They know BMP's and could apply them, but for reasons of personal choice they are offended by regulations and they refuse to let the government tell them how to run the farm. These farmers turn a blind eye to pollution, and they chant the notion that regulation is an infringement on private-property rights. They denounce the burden of new fees and paperwork, and they act as if it is their God-given right to pollute the environment that thousands must share. The Fall edition of RANGE magazine had an opinion opposing ssustainability in politics, including sustainable agriculture as a plot by the United Nations (so-called "Agenda Twenty-One") to despoil property rights in America. The Group-Three category will defy compliance.

Group Four: Group Four farmers don't understand water quality and they don't understand BMP's. If asked to name BMP's, they couldn't get past the fingers of one hand. These farmers don't practice BMP's because they don't know them, and they haven't been persuaded yet that agriculture can compromise water quality, after all they see fish – no pesticides! – swimming in the local stream. Group-four farmers don't care, and they don't want to be bothered with regulations – government is an intrusion into the lives that would be better off without. Government is an obstacle to free enterprise, and regulation stops them from making money. These are the farmers, when asked what water quality is, wrinkle their brow in confusion and cast verbal aspersions. It takes more than education to bring about compliance in this working group.

Looking over the programs purpose and objectives, I find the presentational language awkward. "Agricultural land" is normally not pluralized, because "land" is used in the generic sense. Like corn, farmers grow "corn" not "corns." And the double offense is the compound noun or noun phrase that

52-7

2

it's used in. Land and lands are like security and securities, the plural has a different meaning. A security commission and a securities commission are two different animals. "Other lands" refers to discrete nations, not to acreage. Nobody says "corns belt," because first nouns of a noun phrase are not pluralized. We say pipe stem and pipe stems, not pipes stems. We say "cow pasture" not "cows pasture." It grates on my ear to hear "Irrigated Lands Regulatory Program" when the name, grammatically correct, would be "Irrigated Land Regulatory Program." Or, "Regulatory Program for Irrigated Land."

52-7 cont'd

The first, or number #1, goal of the regulatory program is "the highest reasonable quality of state waters." This is well-stated, and the difference between goals and objectives generally is that objectives can be measured: so the first objective states: "appropriate beneficial uses." As a place where fish swim, breathe and reproduce, that is a beneficial use that can be measured. Of course, there are standards of environmental quality for the water where fish live – these can be measured – and scientists can show that the water is clean enough for fish to live. So objective #1, the first objective, if I can be allowed to paraphrase what is said: "Water Board-established beneficial uses" by ensuring that all state waters meet water quality objectives of Basin Plans. In other words, the water Board decides how dirty a watercourse can be, and it's the job of the Board to see that they don't get any dirtier. The objective could be stated better, but it's the unstated, perhaps understated, objective that really should show up in words: The Water Board wants farmers not to dirty water more than is necessary, and the Water Board will set standards and see that farmers comply. The objective is farmer compliance.

So what the bare bones come down to: beneficial uses, standards for beneficial uses, and standards of compliance for farmers. Coordination, incentives, implementation of management practices are clear objectives of the program, but the objective "restore and maintain appropriate beneficial uses"merely defines what is meant by the goal "highest reasonable quality of state waters." The program's objective is to direct the compliance of farmers to the standards so that the goal can be met – to restore or maintain the beneficial uses.

52-6 cont'd

Once the objective is clearly stated in those terms, the relevance of regulatory markets is keener. The objectives are enforcement (compliance), implementation of BMP's, incentives and coordination. The ILRP alternatives have be evaluated in the context of these objectives – do they meet them - and the strategies to gain compliance (the objective) will vary among the different regulatory groups.

Alternative 1, the current program or the "no-project alternative [no-project alternative and no project alternative differ in meaning]," provides for a blanket waiver for members of a coalition group or a farm waiver customized for the individual farm. In addition there the WDR option for farms, and the option of escaping enrollment by lying under the radar.

Under alternative 1, and all the alternatives, the scenario is much the same. The Water Board sets up minimal standards for water ecology, farmers test, as individuals or a group, and if minimal standards are unmet, BMP's must mitigate. Farmers are compelled to use BMP's. Presumably organic farmers

25

meet the minimal standards, because BMP's are built into the law and a certifier sees to it that organic farmers meet the terms of the law.

Almost immediately, the shortcoming of the ILRP is apparent: market group #1 that includes certified farmers is exposed to double regulation. The ILRP is without coordination and incentives for them, who practice BMP's by law, and though they meet the ILRP goal of beneficial uses, they are penalized by double fees and double paperwork. The ILRP inadvertently contains disincentives for the farmers known as regulatory market #1.

As such, the ILRP is unlawful. The Water Board developed the ILRP to meet the provisions of the Clean Water Act, namely section 319, but the Clean Water Act also requires a reduction of paperwork, and the ILRP doubles the paperwork for this working group of certified farmers. The Water Board has two options: either pass a law that forbids organic farmers to irrigate, thereby excluding them from regulation, or finding another way to reconcile the ILRP with certified farmers who have paperwork, fees and inspections already in place. Joining a coalition merely doubles the fees incurred by this regulatory market group.' In summary, despite the stated objective of incentives, organic farmers pay twice and do paperwork twice, clearly a disincentive for the effort made and the BMP's done.

52-6 cont'd

I. Failings that touch all four regulatory groups:

A. Scientific illiteracy

Basin plans vary in their standards for the same constituent of concern. Dissolved oxygen is a parameter of stream health whose standard varies among basin plans: 6 mg/L, 7 mg/L or 8 mg/L. In the wild, the natural standard for all three basin plans would be just one figure. In effect, one basin plan allows more pollution than another, presumably based on differences of beneficial use.

DO is temperature-dependent, and a saturation DO of 7 mg/L is normal if water warms on a very hot day, even though the stream standard is 8 mg/L. 7 mg/L DO suggests good quality on a very hot day, bad quality on a very cold day, thermal pollution due to a waste treatment plant, thermal pollution due to loss of riparian vegetation that shades the stream, pollutants that rob the water of oxygen, or if the level of 7 mg/L is discovered at night, eutrophy from nutrient pollution.

52-8 cont'd

A polluting farm can escape detection by deft sampling.

5 mg/L DO is the limit at which fish survive in streams. Below that level, fish die from lack of enough oxygen or fail to thrive. So DO is an important parameter of stream health, but it isn't an valid measure of rainfall. Rain tends to be acid from air pollutnats, and icing and melting tends to alter DO saturation limits.

The staff that applies the regulatory program did not understand appropriateness of the monitoring technology. I was ordered to measure the DO of rainfall on my field.

B. Inappropriate standards

52-9

All wells in the Fresno area are tainted with pesticides. 40% of the wellstested nationwide by the EPA were tainted with atrazine, a member of the triazine family of herbicides.

What are the standards? Europe has one for Atrazine, made by the Swiss firm Syngenta, and the United States has one for Atrazine, both desiogned for safe use and application of the chemical. However, the European standard is hundred times tougher than the US safety standard, and California has a standard that differs from the federal standard used in the other 49 states. This is politics, not science, protecting water quality – one standard of safety is 100 times laxer than the other!

In 1992 the National Science Foundation issued a report to Congress recommending that industrial chemicals, especially pesticides, be screened for neurotoxicity, endocrine disruption and reproductive teragenicity. The Food Quality Protection Act and the amendments to the Safe Drinking Water Act, 1995 and 1996, caused the EPA to pursue screening of endocrine disruptors, especially EEDC, estrogenic endocrine disrupting chemicals. In 1992 about 35 pesticides were known to be estrogenic; today the list includes a 180 pesticides that account for half the pounds of pesticides used in agriculture. Despite the new science, the old standards are still in place.

52-9 cont'd

Natural waters have zero atrazine, natural well water has zero atrazine. Atrazine is a manmade estrogen that has no safe NOEL. However, California has a standard, and the standard, if an exceedance occurs, means that some farmers will have to switch to other herbicides not of the triazine family. If OP standards for water quality are exceeded, some farmers in the watershed can switch to pyrethroids or neonicotinoids so that the standards of water quality are met.

So the ILRP plays out this way: The Water Board sets a basin plan standard to protect water quality; a coalition group tells some farmers to use this chemical and some farmers to use that chemical because if they used the same chemical there would be an exceedance. The Water Board in effect encourages the implementation of management practices that include water quality, including a commercial paraoxonase added to an irrigation ditch to recover from an OP exceedance, while the coalition that does this includes organic farmers who use none of the chemicals and pay a fee to be inspected to see that none of the chemicals were used and whose produce is spot-checked to see that no residues of use are there. This makes no sense in terms of water quality. The users can claim financial assistance to switch from OP's to neonicotinoids because they are minimizing waste discharges of OP's.

C. Education

One objective, "encourage implementation of management practices," is nebulous in its ILRP. The ILRP alternatives discourage organic farmers who already put BMP's into practice, according to NOP law. A sizable regulatory group aforementioned is unversed in BMP's, and none of the alternatives provide for education, except the 15 workshop provided for in one alternative.

52-10

What is needed are:

TEMPLATES that illustrate a suite of management practices

ON-LINE COURSE: UCCE offers an on-line course in sustainable agriculture to staff and candidate farmadvisors, and the Rodale Institute has an-line course on organic farming at the New Farm website. UCCE patented their course FARM WATER QUALITY PLAN this year, but the course is no longer available.

FARM MAKEOVER: The USDA-NRCS and UCCE could combine resources to film a farm makeover that illustrates the implementation of BMP's.

DEMONSTRATION FARM: Both UC and CSU systems have demonstration farms where the latest technologies can be seen – like subsurface irrigation techniques. The Annual Farm Conference visits farms and demonstrates some BMP's.

COMPETITION: The Water Board could sponsor a contest and offer prizes for innovative BMP's

Appropriate technology is a big onstacle to farmers who don't understand BMP's, how to protect surface and ground water within the state. The economics of each BMP varies, and the economic analysis does not delve into details of the costs of BMP's nor the costs of exceedances of water quality standards.

52-10 cont'd

I recommend that the Water Board do three things for the future of the ILRP:

1. Allow the OSP to serve as a Farm water Quality Management Plan; OSP's are inspected by certifiers.
2. Film the UCCE workshop Farm Water Quality Plan and put an interactive version on the Web
3. Train staff in adaptive management: how to monitor to correctly gauge the effectiveness of a given BMP.

Farms can be rated by their BMP's. The effectiveness of a BMP is generally known, and if BMP X gives a farmer ten points and BMP Y two points and BMP Z six points, farms can be rated according to BMP's. A farm that uses X and Z has BMP's worth 16 points; whereas a farm that uses Y and Z, is worth 8 points on the BMP scale.

The Farm Bureau Federation at the national level worked to assure that programs like the ILRP have two features: options and market forces. The current ILRP has options: individual waiver and coalition waiver, except that the Central Valley staff works to phase out the agreed options for a coalition0based system. The alternatives need a FWQMP (or OSP substitute) to restore the lost option

Water monitoring is a discipline in an dof itself, and though water staff has experience and education in chemical engineering and running laboratories, the knowledge of BMP's and water-testing is foreign to them and as a result the staff doesn't get conditions and technical papers right. A mechanic trained in engines overhauls and tune-up's may not be able to fix a transmission. A diesel tractor mechanic may not be able to fix a chainsaw engine. The ILRP has opticians doing heart surgery, or transferring the surgery to third-party allergists. That's why, when I described a management practice in my general report (that I used but didn't name the practice which is named NRCS code 500 obstruction removal), I received a letter from the Water Board staff threatening to fine me for using the BMP that I implemented and that the staff didn't recognize. This could happen under any ILRP alternative.

52-11

3.4.18.1 Responses to Letter 52

52-1

Page 92 of the Draft PEIR, Appendix A defines irrigated lands as: "…lands where water is applied to produce crops, fiber, or livestock for commercial sale or use. For the purposes of this ILRP, irrigated agricultural lands also include managed wetlands and nurseries."

The definition of irrigated lands is broad and can include many different crop types and operations conducted in the Central Valley; the common factor is use of irrigation water. There are an estimated over 7.5 million acres of lands that may fall under this definition. Central Valley lands include many other operations that may generate waste that can be discharged into surface or groundwater. The comment specifically describes that on-farm roads are a source of waste. Other operations may include vehicle servicing, processing, and equipment staging operations—all of which may be present on farms. While these other operations may generate waste, the ILRP is specific to the operation of irrigating crops. These other types of farm or agricultural operations have not been included in the ILRP so the program could be focused on this particular issue. It is well-documented that discharges from irrigated lands have impacted Central Valley surface and groundwater (see Draft PEIR, Appendix A, Section III.C).

If waste discharges from other farming operations are found to potentially affect the quality of state waters, the Central Valley Water Board can regulate these discharges under a separate program or include them in future iterations of the Long-term ILRP.

52-2

The Central Valley Water Board appreciates the concerns expressed by the comment and will incorporate these and other "lessons learned" into the development of the Long-term ILRP. The experience described in the comment supports the Draft PEIR, Appendix A estimates used to evaluate the resources necessary to implement the Long-term IRLP alternatives, which clearly indicate the alternatives that involve staff working directly with individual irrigated agricultural operations would require substantially more resources (staffing, translating to time and expense) to implement (see Draft PEIR, Appendix A, pages 116–120).

The Central Valley Water Board intends to implement a Long-term ILRP that focuses on aligning the regulatory burden with the level of threat to surface or groundwater quality. The Board's intent is to incentivize implementation of management practices; assure adequate feedback mechanisms through monitoring; and improve regulatory efforts, particularly when problems are identified. This approach should minimize the regulatory burden and monitoring requirements for growers who are already implementing practices protective of surface and groundwater quality.

52-3

No response needed.

52-4

Under any proposed Long-term ILRP alternative, or in the absence of the ILRP, the DPR and the local County Agricultural Commissioner would have the lead responsibility for addressing contamination/toxicity event as described by the comment. In addition, Central Valley Water Board

staff members are available to respond to emergencies and spills and would coordinate with DPR in such an event.

52-5

No response needed.

52-6

This comment describes a concern that organic growers are already implementing water quality management practices that would meet the requirements of the ILRP. The practices are checked by a certifying entity, which charges fees for inspections and review. The comment expresses concern that the Long-term ILRP would create fees and paperwork in addition to the organic program fees and paperwork, essentially constituting dual regulation for, in the commenter's opinion, the same level of water quality protection.

Alternatives 3 and 6 provide the flexibility for certifying entities, such as the organic certifiers, to work with the Central Valley Water Board as a third-party certifier. Under these alternatives, third-party certifiers (including organic certifiers) would have the option of working with the Board to ensure that their certification requirements meet ILRP goals and objectives. These certifiers would then work with irrigated agricultural operations to certify individual farm water quality management plans for the ILRP in conjunction with any other certifications. This option would work to prevent dual regulation as recommended by this comment.

52-7

The comment is correct that the language usage can seem awkward. However, the Central Valley Water Board is regulating multiple discrete irrigated land operations, so the plural "irrigated lands" is considered appropriate.

52-8

The current ILRP requires field measurement (measurement taken at the location and time that a sample is collected) for DO, temperature, pH, EC and flow. If an individual under the current ILRP is subject to an individual order or WDR, the individual may be required to collect samples of any discharges from the property including collection of field measurements. These measurements are utilized to assess the water quality of the discharge that may affect a surface water of the state.

52-9

According to DPR's 2009 Update of the Well Inventory Database, 106 out of 305 public water supply wells (35 percent) had reportable detections of pesticides (atrazine was not detected in any of the Fresno County wells sampled in 2009). (California Department of Pesticide Regulation 2010.)

The Office of Environmental Health Hazard Assessment California Environmental Protection Agency has developed a Public Health Goal (PHG) for atrazine in drinking water of 1 part per billion (ppb) (February 1999). The EPA's drinking water standard for atrazine is 3 ppb, and the World Health Organization (WHO) has recommended a drinking water standard of 100 ppb (a substantial increase from the previous WHO standard of 2 ppb) (Atrazine and Its Metabolites in Drinking-water, 2010). All of the atrazine drinking water levels have been supported by various scientific studies.

These studies often contradict each other and may be superseded by additional or subsequent research (as was the case of the WHO's change from 2 ppb to 100 ppb).

Under the current ILRP and the proposed Long-term ILRP Alternatives 2 and 6, two exceedances of a water quality parameter that occur at the same location within a 3-year period require the development of a management plan to address the exceedances. The management plan is developed by the coalition or individual (if under individual WDRs) and approved by the Central Valley Water Board's Executive Officer. The management plan details a course of action to investigate the water quality problem and to stop the exceedances of the identified water quality parameter. The actual method(s) used to eliminate the water quality exceedances are developed through the process of implementing the management plan and are collaboration between the individual or coalition and the Central Valley Water Board.

As stated in the comment, there is concern that compliance with the ILRP would involve exchanging the types of pesticides used in order to meet water quality objectives. Because the California Water Code prohibits the Central Valley Water Board from specifying the manner of compliance with objectives [Section 13360], using different pesticides to reduce the discharge of pesticides that are exceeding water quality objectives would be a permissible approach. However, if water quality monitoring indicates increasing trends (degradation) or exceedances of the substituted pesticides, then other means of compliance may be necessary.

52-10

See Comment Letter 52, Response 6. The Central Valley Water Board appreciates the recommendations provided in this comment and will consider these suggestions when specific implementation tools are developed for the Long-term ILRP.

52-11

The Central Valley Water Board disagrees with the comment's characterization of staffs' capabilities. However, the Board acknowledges that water quality protection in an agricultural setting is complex and the process involves continuing improvement in understanding the means with which to best and most effectively protect water quality.

3.4.19 Letter 5—Vance Kennedy

Comment Letter IL5

Central Valley Regional Water Quality Control Board
Long-term Irrigated Lands Regulatory Program
Draft Programmatic Environmental Impact Report Public Comment Form

Name: Vance Kennedy
Mailing Address: 5052 Tully Rd
Modesto Ca 95356
Telephone No. (optional): 209 545-3575
Email (optional):

Comments/Issues:

No clear idea presented on how sampling will be done. That is critical to any conclusions 5-1

Please use additional sheets if necessary.

SUBMIT WRITTEN COMMENTS BY SEPTEMBER 27TH TO:

Mail: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com

Website: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

3.4.19.1 Responses to Letter 5

5-1

Development and evaluation of the proposed ILRP alternatives is currently being undertaken at a programmatic level and detailed site-specific information has not been considered. Specific prioritization levels, monitoring frequencies, locations, and constituents will be established during development of the subsequent orders. At that time, specific information on the types of waste discharge (pesticides used, pathways of waste movement, etc.), local conditions, existing water quality, existing monitoring programs, existing wells, and other local factors will be considered.

Also see Master Response 7.

3.4.20 Letter 82—Nancy Lea

RECEIVED 09/27/2010 15:46 9164566724 JSA
Sep 27 10 03:51p Nancy Lea 530-662-7087

Comment Letter IL82

To: Ms. Megan Smith
630 K Street Ste. 400
Sacramento CA 95814

From: Nancy Lea
PO Box 8667
Woodland, CA 95776

September 27, 2010

Fax # 916-456-6724

Dear Ms. Smith:

This fax is intended to provide comments on the Recommended Program Alternative, ILRP.

My husband and I have farmed walnuts in Yolo County for over 30 years. We have participated in the Irrigated Lands Program since its inception through the leadership of the Yolo County Farm Bureau and the Yolo County Agricultural Commissioners Office. The program had served to educate growers, encourage best practices, and apprise all of us of exceedences, most of which have nothing to do with agriculture.

The problem with the Recommended Alternative is that it places unsustainable financial burdens on individual family farmers and ranchers. Certainly large growers may be able to afford its costs but small growers cannot. There is a complete lack of recognition evidenced in the Recommended Alternative that California growers are selling their crops into a world market and are competing against countries with a much lower cost and input structure. Thus, the increased costs of doing business (i.e., farming) cannot be passed along to the consumer: he will just buy product grown out of California. If California farmers cannot compete with foreign growers, the smaller California farmer has no choice but to go out of business. Since the California agricultural cost structure is either static or increasing, and the only potential ability to reduce costs is to spread them over larger operations, this has the effect of pushing family farmers/ranchers and small growers out of business. 82-1

I additionally note that our county is attempting to encourage new younger farmers to grow intensive and permanent crops on smaller acreages: there are very high capital requirements to go into that type of agriculture, especially for farmers who may not have inherited their land. This type of regulatory cost burden may well keep new, young farmers from being able to enter agriculture and will defeat our county's goal of building diversification in agriculture and improving the agricultural land tax base. 82-2

The potential per acre fees to support the Regional Board's wide ranging estimated cost of $4,000,000 to $66,000,000 - since agriculture is -apparently - expected to carry up to 82-3

RECEIVED 09/27/2010 15:46 9164566724 JSA
Sep 27 10 03:51p Nancy Lea 530-662-7087 p.2

P. 2

97% of those costs - could be the final burden that puts many growers out of business. Additionally, the testing required - as demonstrated by the Economic Analysis - is not affordable by most small farmers and ranchers. 82-3 cont'd

It should also be noted that much of the anticipated monitoring work is already duplicated by other programs, both public and private. In an era of recession and reduced farm income it makes no sense to reinvent the wheel. 82-4

California farmers and ranchers have every interest in protecting their environment: they live in it.

Thank you for considering my comments.

3.4.20.1 Responses to Letter 82

82-1

See Master Responses 12 and 17.

82-2

See Master Response 17.

82-3

See Master Response 17.

82-4

See Comment Letter 114, Response 10 and Comment Letter 96, Response 11.

3.4.21 Letter 50—G. Fred Lee, Ph.D., G. Fred Lee and Associates; Anne Jones Lee, Ph.D., G. Fred Lee & Associates

Comment Letter IL50

G. Fred Lee & Associates

27298 East El Macero Drive
El Macero, CA 95618
530-753-9630 gfredlee@aol.com
www.gfredlee.com

Sent via email to ILRPcomments@icfi.com
ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

September 25, 2010

Comments on
Draft Program Environmental Impact Report for a Waste Discharge Regulatory Program for Irrigated Lands within the Central Valley Region
Submitted by

G. Fred Lee, PhD, AAEE Bd. Cert. Env. Eng., F.ASCE
Anne Jones Lee, PhD
G. Fred Lee & Associates
El Macero, California

In response to a request for comments on the Draft Program Environmental Impact Report for a Waste Discharge Regulatory Program for Irrigated Lands within the Central Valley Region we wish to submit these comments.

Overall we find that the five alternatives listed in the draft EIR are not necessarily appropriate for providing guidance for establishing the future direction of the Central Valley Irrigated Lands Regulatory Program (ILRP). Adoption or continuation of any of the five alternatives, including the current program, cannot be expected to achieve the regulatory goals of protecting the water quality/beneficial uses of Central Valley waterbodies that are impacted by discharges/runoff from irrigated lands. Based on my (G. Fred Lee) more than 40 years of experience in development and implementation of water quality programs some of which have been directed to agricultural sources of pollutants, whichever of those alternatives the Central Valley Regional Water Quality Control Board (CVRWQCB) may adopt, it will be challenged by environmental groups and, if not overturned at the state (State Water Resources Control Board-SWRCB) and federal (USEPA) levels, it will likely be found by the courts to fail to fulfill the regulatory requirement to protect the water quality of Central Valley waterbodies from adverse impacts of discharges from irrigated lands. 50-1

The CVRWQCB Monitoring and Reporting Program Order No. R5-2008-0005 for Coalition Groups under Amended Order No. R5-2006-0053 Coalition Group Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands Adopted in 2008 states: 50-2
"MRP OBJECTIVES
The Water Code mandates that monitoring requirements for a Waiver be designed to verify the

adequacy and effectiveness of the Waiver's conditions. One of the conditions of the Waiver is that discharges of waste from irrigated lands to surface waters of the State shall not cause or contribute to an exceedance of an applicable water quality standard."

This requirement means that, in accord with the Clean Water Act and the CWRWQCB, none of the water quality objectives (WQOs), including numeric and narrative objectives and covering all impairments of the designated beneficial uses of the state's waters, can be exceeded by any amount more than once in a three-year period. This requirement applies to all of the state's waters.

It is important to understand that just meeting all of the US EPA water quality criteria/ CVRWQCB water quality objectives for potentially toxic chemicals as required in the ILRP does not ensure protection of aquatic life from toxicity of the known potential pollutants as well as of chemicals for which there are no water quality criteria; a combination of potentially toxic chemicals in concentrations less than their respective toxic concentrations can cause toxicity by additive and/or synergistic effects. While additive and synergistic toxicity impacts are well-known to occur, the US EPA does not incorporate that information in its aquatic life criteria for potentially toxic chemicals that are used for the regulation of toxic chemicals based on numeric water quality standards. The CVRWQCB WQOs only consider a very limited number of additive impacts of mixtures and do not address synergistic impacts. This deficiency can be addressed to some extent through the appropriate measurement of aquatic life toxicity, and highlights the need to evaluate aquatic life toxicity in establishing compliance with water quality criteria/objective to protect aquatic life resources of the Central Valley waterbodies from the impacts of toxic chemicals in irrigated agriculture runoff/discharges. However the use of toxicity measurements will need to be greatly expanded from the current use to achieve this approach.

50-2 cont'd

Comments on proposed alternatives identified in the draft ILRP EIR for governing the future direction of the ILRP follow.

Alternative 1 ("No Project" Alternative). This alternative of continuing the current regulatory program falls far short of adequately defining the occurrence and water quality impacts of irrigated lands discharges/runoff. The current program is based on the "Monitoring and Reporting Program Order No. R5-2008-0005 for Coalition Groups under Amended Order No. R5-2006-0053 Coalition Group Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands Adopted on 25 January 2008." A copy of that program is available at: http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2008-0005_mrp.pdf.

We provided detailed comments (see attached list of papers and reports) on significant technical deficiencies in that monitoring program for the development of an information base upon which it would be possible to reliably evaluate the occurrence and significance of the discharge of pollutants from irrigated lands that cause violations of water quality standards in the state's waters and/or impairment of the beneficial uses of Central Valley waters in the case of nutrients, TOC, and other contaminants for which no numeric water quality objectives have been adopted.

50-3

2

Our comments on technical deficiencies in that monitoring program are available on our website, www.gfredlee.com, in the Surface Water Quality section, the Agricultural Impacts on Water Quality subsection. A copy of our specific comments on the then-final ILRP MRP is attached. Also attached is a discussion of some the issues that need to be considered in developing the ILRP to achieve the program requirements.

While some of the then-proposed water quality monitoring program deficiencies were corrected by the staff after receiving our comments, there were several major deficiencies that were allowed to be implemented in the current water quality monitoring/evaluation program the most important of which is the failure to adopt edge of the field and upstream monitoring. It appeared to us that the CVRWQCB took the position that it would ignore these deficiencies in order to reduce the cost of water quality monitoring/evaluation and thereby gain acceptance of the irrigated lands regulated community to participate even to a limited extent in the monitoring program. To now propose to continue what is obviously a significantly deficient monitoring/evaluation program as proposed in *Alternative 1* is not acceptable.

50-3 cont'd

In our previous comments we stressed the need for monitoring at the edge-of-the-field and in nearby state waters to define the worst-case impacts of toxic and other chemicals discharged from agricultural activities. In some waterbodies the worst case impacts could be detrimental to fish spawning/rearing areas that would not be detected by the current downstream at a single monitoring location as practiced in the current monitoring program. This type of monitoring is also essential to evaluate the effectiveness of management practices to control WQO violations in the states waters. We also discussed the need to monitor downstream of the current monitoring locations to evaluate the impact of nutrients on downstream water quality.

50-4

The staff-recommended alternative analysis of costs and other impacts presented in the draft EIR does not reflect the true costs to achieve reasonably complete evaluation of the current water quality problems caused by irrigated agriculture discharges to surface and groundwaters. The deficiencies in the ability of the current water monitoring program to provide a proper description of the magnitude of the water quality problems caused by current agricultural discharges render the detailed analysis of these issues presented in the draft EIR unreliable. Without a technically solid assessment of water quality problems that arise at edge of the field and downstream, it is impossible to reliably estimate the control programs needed, much less the cost of implementation of control programs or their impacts on agricultural activities or water quality in the Central Valley. While a considerable amount of money has have been spent on limited aspects of the current downstream water quality monitoring, it is not possible to estimate the cost of a comprehensive water quality monitoring program that can detect essentially all the WQO violations that occur upstream, and for nutrients downstream, of the current water quality ILRP monitoring locations.

50-5

If this program is to fulfill the regulatory requirements of the program, the future water quality monitoring/evaluation program for the ILRP must include comprehensive monitoring of representative edge-of-the-field discharges and waters downstream from the discharge for the full range of potential pollutants that are likely to be in the agricultural discharge/runoff or to develop downstream as a result of the discharge. Where the discharge of pollutants (constituents that impair designated beneficial uses of the state's waters) is found, the discharger(s) should

50-6

3

evaluate and implement to the extent economically possible/feasible control measures for the pollutants at the source. The monitoring and evaluation of the pollutant control programs must be comprehensive such that it can provide a reliable foundation for developing and assessing the economic feasibility of implementing the pollutant control program. 50-6 cont'd

Alternative 2 — Third-Party Lead Entity includes third-party monitoring of surface waters and is expanded to include some groundwater quality monitoring. The expansion of the ILRP to include evaluation and potential control of pollution of groundwater by irrigated lands is an important step toward beginning to protect the groundwater resources of the Central Valley. In our previous comments on deficiencies in the ILRP we have repeatedly pointed out that the control of groundwater pollution should be part of the program. Our comments on groundwater pollution in the Central Valley by irrigated agriculture are available on our website in the Groundwater Quality Protection section at http://www.gfredlee.com/plandfil2.htm#gwprotection. A list of our papers and reports that address issues of groundwater pollution by irrigated agriculture is attached to these comments. As discussed in those writings, it has been well-established that irrigated agriculture cannot be practiced without causing groundwater pollution by salts and nitrate. The best that can be achieved is the minimization of groundwater pollution. This should be the goal of this part of the program. 50-7

The draft EIR does not provide adequate information on the characteristics of groundwater monitoring program to develop a reliable early warning monitoring program to detect management activities by agriculture to protect groundwater from further pollution. This approach is discussed in our reports concerning the protection of groundwater quality in the Central Valley. Without this information it is not possible to estimate the costs for implementation of the program. 50-8

The claim made by several agricultural representatives at the CVRWQCB September 22, 2010 meeting, that nitrate and salts do not pollute deeper groundwater because of depth to groundwater, is not technically valid. Examination of the groundwater pollution that has occurred in the Delano and McFarland areas of the Central Valley readily demonstrates the invalidity of their claim. Having grown up in Delano, G. Fred Lee is well-aware of the pollution of the area groundwater by agriculture-derived nitrate to the point that the nitrate MCLs were exceeded in water in municipal water supply wells. While some pollutants have limited ability to penetrate the unsaturated zones of aquifers, others, such as salts, nitrate and some pesticides, have limited attenuation in the unsaturated zone; it is only a matter of time before such chemicals in the surface soils pollutant the saturated zone (water table) of the aquifer. 50-9

Alternative 2 is deficient, however, in its not requiring early-warning monitoring for groundwater pollution. Without reliable monitoring of that type it is not possible to evaluate the effectiveness of the groundwater management plans. 50-10

Alternative 3 — Individual Farm Water Quality Management Program is based on "visual" monitoring. This is not a technically valid approach for controlling water pollution by irrigated agriculture. Evaluation of Farm Water Quality Management plans must be based on comprehensive water quality monitoring at the edge of the field and for nutrients downstream of 50-11

4

the discharges where nutrients are impacting water quality such as in the Delta. 50-11 cont'd

Alternative 4—Direct Oversight with Regional Monitoring is a potentially feasible approach provided that adequate surface and groundwater quality monitoring/evaluation and control of pollutant discharges are achieved including comprehensive edge of the field and downstream monitoring. 50-12

Alternative 5 — Direct Oversight with Farm Monitoring has the potential of being effective provided that comprehensive monitoring programs are implemented. However based on the past experience where the CVRWQCB adopted.allowed water quality monitoring programs that were obviously technically deficient there is concern the needed programs would not be required. The cost of this approach would likely cause the approach to not be implementable by small farms. This approach could potentially be used by larger farming interests, but, again, there will be need for comprehensive surface and groundwater monitoring/evaluation and management. 50-13

Rather than adopt a single alternative, or a combination of the alternatives, the CVRWQCB needs to first implement a comprehensive water quality monitoring program for surface and groundwaters. With several years' data from such a program it would be possible to start to develop a draft EIR that could reliably assess and outline the cost and effectiveness of control programs for pollutants in surface and groundwaters. 50-14

5

3.4.21.1 Responses to Letter 50

50-1

The Central Valley Water Board believes the range of alternatives is reasonable and appropriately reflects the Board's options under Porter-Cologne to protect water quality from agricultural dischargers. Because this program regulates discharge from agriculture, EPA has no statutory authority to overturn any Board adopted ILRP.

50-2

The Central Valley Water Board anticipates that toxicity testing would continue in the Central Valley through various monitoring programs and would be used to help evaluate the effectiveness of irrigation management practices implemented as part of the Long-term ILRP.

50-3

The Central Valley Water Board is required by CEQA to assess the No Project Alternative (Alternative 1), which was included in the Draft PEIR. Also see Master Response 2 and Comment Letter 104, Response 18.

50-4

In developing any scientific study requiring costly sampling particularly of dynamic systems such as streams or surface waters, one of the chief challenges is to balance the amount of data (number of samples) needed to answer the study question verses the funds available to perform the study. In the case of irrigated agriculture within the Central Valley, this is a particularly daunting task. Conditions vary considerably between the perennial streams in the north valley to the irrigation dominated intermittent streams in the south valley; between water quality in streams on the east side of the valley (Sierran block) to the west side streams that are dominated by the Coast Ranges marine sediments. Likewise irrigated agriculture and associated farming practices vary significantly from the north to south and from the east to the west within the Central Valley.

In addressing this natural wide variability in surface water conditions; differences in crop types, growing seasons, irrigation methods, and farming practices; any sampling program developed for the Long-term ILRP must be as flexible as possible and still incorporate the identified Long-term ILRP goals and objectives. Mandatory edge of field and downstream sampling for every irrigated agricultural operation within the Central Valley Region does not provide this necessary flexibility and is cost prohibitive, thus making it incompatible with the Long-term ILRP's Goal 3 and Objective 2.

As stated by the comment in the discussion of management practices (bottom of page 3 of the comment letter),*"Where the discharge of pollutants (constituents that impair designated beneficial uses of the state's waters) is found, the discharger(s) should evaluate and implement to the extent economically possible/ feasible control measures for the pollutants at the source."* This idea of implementing what is economically possible must also extend to the development and execution of a sampling program.

Alternative 6 provides flexibility in surface water monitoring by assessing priority factors for water bodies, beneficial uses, and pollutants. This data is then used to assign tiers which specify the period

of monitoring and utilizes sampling similar to the monitoring required under the current ILRP. The current ILRP's regional sampling program has been shown to be effective in identifying water quality problems which are then addressed through the development and implementation of a management plan. This regional sampling program would also be effective at determining levels of nutrients in receiving waters as suggested in the comment. It is primarily through the implementation of a management plan that specific management practices are evaluated for cost and effectiveness under actual site conditions.

50-5

This comment will be considered in the continued development of the Long-term ILRP. Also see Master Responses 7 and 17.

50-6

See Comment Letter 50, Response 4.

The Central Valley Water Board agrees that representative monitoring of edge of field discharges can be an important tool in determining the effectiveness of management practices. Such monitoring would be most applicable in situations in which the irrigated agricultural contribution to the water quality problem is unknown or when progress in improving water quality is not being made. The commenter's support for representative edge-of-field monitoring will be considered in the development of the Long-term ILRP.

50-7

The support for inclusion of groundwater monitoring and management requirements will be considered in the development of the Long-term ILRP. The Central Valley Water Board's Basin Plan requires that beneficial uses be maintained for surface and groundwater. Consistent with the Basin Plan, the goals and objectives of the ILRP include restoring and/ or maintaining appropriate beneficial uses. The suggestion to establish a goal of minimization of groundwater pollution is consistent with Goal 2 of the ILRP: *"Minimize waste discharge from irrigated agricultural lands that could degrade the quality of State waters."* However, establishing that operations need only minimize pollution without consideration of maintaining beneficial uses would not be consistent with Basin Plan requirements. Therefore, groundwater requirements must be developed to ensure that, at a minimum, beneficial uses are maintained.

50-8

Development and evaluation of the proposed ILRP alternatives is currently being undertaken at a programmatic level and site-specific and other waste specific information have not been considered in detail. It would be inappropriate to establish specific monitoring frequencies (groundwater/ surface water), locations, and constituents at this stage without first considering the types of waste discharge (pesticides used, pathways of waste movement, etc.), local conditions, existing water quality, existing monitoring programs, existing wells, and other local factors. These site-specific analyses will occur during development of ILRP WDRs and waivers and subsequent water quality monitoring and management plans. Also see Master Response 7.

Programmatic-level monitoring costs have been estimated for each of the alternatives using information from the current ILRP, Kings River Coalition, DPR, USGS, and groundwater vulnerability

models (DPR/State Water Board). The methods for estimating groundwater monitoring costs for ILRP alternatives are described in Chapter 2 of the Draft ILRP Economics Report.

50-9

The Draft PEIR Chapter 5, Environmental Impacts and Mitigation Measures, Section 5.9, Hydrology and Water Quality, discusses this issue in the impacts analysis and mitigation sections (beginning at page 5.9-14).

50-10

See Comment Letter 1, Response 59.

50-11

The Draft PEIR, Appendix A evaluates whether each of the alternatives is consistent with the program goals and objectives, California Water Code, NPS Policy, and Antidegradation requirements. In this evaluation, Alternative 3 was not fully consistent with the NPS and Antidegradation policies, mainly because the alternative does not specify water quality monitoring (see Draft PEIR, Appendix A, pages 107–116 and 165–168).

50-12

The support for Alternative 4, with the inclusion of edge-of-field monitoring (similar to Alternative 5), will be considered in the development of the Long-term ILRP.

50-13

The specific requirements to be included in a monitoring program(s) depend upon the alternative chosen. Alternative 5 requires monthly monitoring of tailwater discharges, storm water discharge monitoring, annual supply well sampling, and installation of groundwater monitoring wells or other approved monitoring method to be sampled semiannually if requested by the Central Valley Water Board Executive Officer.

50-14

The Central Valley Water Board finds that there is sufficient water quality data available from existing surface water and groundwater monitoring programs that indicate the importance of continued regulation of agricultural discharges in the Central Valley (see Draft PEIR, Appendix A, Table 3, page 26).

The Board must implement a Long-term ILRP to protect surface and groundwater quality in order to comply with the program goals and objectives, the California Water Code, and other state policies (see Draft PEIR, Appendix A, pages 96–116). While collection of additional water quality monitoring data will provide information important to developing the ILRP requirements, the Board must adopt regulatory requirements to ensure that discharges of waste associated with irrigated agriculture do not cause or contribute to exceedances of water quality objectives.

3.4.22 Letter 66—Kent Vander Linden

Comment Letter IL66

September 8, 2010

Central Valley Regional Water Quality Control Board
ILRP Comments
Ms. Megan Smith
630 K Street, suite 400
Sacramento, California 95814

Subject: Irrigated Lands Regulatory Program (ILRP) - Ground Water Quality Monitoring

I am a small landowner with a few Mandarin trees and at the moment, seven cows. I irrigate pasture land for feed for the cows and to water the trees. I do not spray or use fertilizer other than a little nitrogen once a year on the trees. My total profit can be measured in tens to hundreds of dollars, not thousands. Many years I do not cover costs. Why the government wants to collect any money from me is beyond me. And now someone wants more. Do you want me to stop using the land or what? 66-1

As a grower in Placer County, and a member of the Placer-Nevada-South Sutter-North Sacramento Sub-Watershed Group (PNSSNS), I am concerned that the Central Valley Regional Water Quality Control Board (Regional Board) is adding more burdensome regulations that will put many growers out of business. Over the past six years, approximately $300,000 has been drained from our ag community for this program. In fact, the recommended program will have a disproportional impact on smaller farming operations and some crop types. The *Economic Analysis* estimates it could cost a grower $5000 to characterize surface and groundwater quality for Tier 1 low impact areas **in addition to costs for water quality testing.**

More specifically, I want to address the groundwater monitoring component to the Irrigated Lands Regulatory Program (ILRP). Pesticide contamination seems to be the driving concern behind this additional regulatory scheme, which greatly concerns me as this issue has already been addressed through existing regulation.

The California Department of Pesticide Regulation (DPR) has the primary responsibility for regulating all aspects of pesticide sales and use to protect the public health and the environment. DPR's mission is to evaluate and mitigate impacts of pesticide use, maintain the safety of the pesticide workplace, ensure product effectiveness, and encourage the development and use of reduced risk pest control practices while recognizing the need for pest management in a healthy economy. DPR is a department within the California Environmental Protection Agency, just like the Regional Board.

DPR already has the following regulations (Title 3 California Code of Regulations, Division 6) in place to protect groundwater from pesticide contamination including:

Section 6416: Groundwater Protection Areas
Section 6486: Restrictions for Groundwater Protection List Pesticides Listed in Section 6800(a)
Section 6487.1: Artificial Recharge Basins
Section 6487.2: Inside Canal and Ditch Banks
Section 6487.3: Engineered Rights of Way within Groundwater Protection Areas
Section 6487.4: Runoff Groundwater Protection Areas
Section 6487.5: Leaching Groundwater Protection Areas
Section 6609: Wellhead Protection
Section 6800(a): List of Pesticides Determined to have the Potential to Pollute Groundwater

Not only is it redundant for the Regional Board to attempt to regulate something that is already regulated by DPR, but it is a poor use of public funds for two departments within the same agency to attempt to regulate the same thing for the same purpose. Moreover, Placer County, South Sutter Water District, Placer County Water Agency, the Natomas Mutual Water Company, the City of Lincoln, and the City of Roseville have extensive groundwater monitoring data or programs to keep groundwater clean.

Respectfully,

Kent Vander Linden
2350 Humphrey Rd.
Penryn, CA 95663
916-652-7319

3.4.22.1 Responses to Letter 66

66-1

See Master Response 17.

3.4.23 Letter 6—Virginia Madveno

Comment Letter IL6

Central Valley Regional Water Quality Control Board
Long-term Irrigated Lands Regulatory Program
Draft Programmatic Environmental Impact Report Public Comment Form

Name: VIRGINIA MADVENO
Mailing Address: PO Box 696
RIVERBANK CA 95367
Telephone No. (optional): (209) 968 7052
Email (optional): vmadveno@cleanwater.org

Comments/Issues: There are communities in Stanislaus County and throughout the Valley that cannot use tap water in their homes for drinking or cooking due to nitrate contamination. Some communities are on the edge, having to pay for expensive nitrate treatment or close wells, limiting local drinking water supplies and creating additional barriers to local economic development. Nitrates are an acute contaminant that at high levels in drinking water can cause death in an infant in a matter of days, and has been linked to many other health outcomes in adults. Nitrates are a preventable problem that are caused by runoff from chemical fertilizers and animal waste. The Central Valley Regional Water Board must develop a program that will reduce nitrate pollution from farms before it becomes too expensive to clean up. We need a solution that is strong enough to stop further pollution of Central Valley's drinking waters. We need the CVRWB to collect basic information from farms on how much fertilizer is being applied. 6-1

Please use additional sheets if necessary

SUBMIT WRITTEN COMMENTS BY SEPTEMBER 27TH TO:

Mail: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com
Website: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

3.4.23.1 Responses to Letter 6

6-1

See Comment Letter 40, Response 2; Comment Letter 123, Response 10; Comment Letter 123, Response 88; and Comment Letter 14, Response 1.

3.4.24 Letter 15—Maria Magana

Comment Letter IL15

Central Valley Regional Water Quality Control Board
Long-term Irrigated Lands Regulatory Program
Draft Programmatic Environmental Impact Report Public Comment Form

Name: Maria Magaña
Mailing Address: 15675 Ave 384
Visalia CA 93292
Telephone No. (optional):
Email (optional): Teach_mma@yahoo.com

Comments/Issues:

I live in a small community with surrounding farmland. The community's water has been contaminated. Within the community there is a school, I am a teacher at that school and the school water is also contaminated. Our children deserve clean water in our schools. We need stronger regulation on pesticides and chemicals that go into the farmland that cause the contamination of our water.

15-1

Please use additional sheets if necessary.

SUBMIT WRITTEN COMMENTS BY SEPTEMBER 27TH TO:

Mail: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com

Website: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

3.4.24.1 Responses to Letter 15

15-1

The support for stronger regulations will be considered in the development of the Long-term ILRP.

See Comment Letter 14, Response1.

3.4.25 Letter 16—Simona Magana

Comment Letter IL16

Dirección Regional de Control de Calidad de Aguas de Central Valley
Programa Regulatorio a Largo Plazo de Tierras de Regadío
Formulario de Comentarios Públicos Anteproyecto Programático de Impacto Ambiental

Nombre: Simona Magaña
Domicilio: 15675 Ave 384
Visalia CA 93292
No. Teléfono (optativo):
Email (optativo):

Comentarios/Problemas:

- Soy dueña de perforación, el agua no es potable.
- Por favor ayuden a que el agua se limpie y ya no se contamine.
- Queremos y necesitamos agua limpia.

16-1

Por favor utilize páginas extras si es necesario.

PRESENTE COMENTARIOS POR ESCRITO EN O ANTES DEL 27 DE SEPTIEMBRE A:

Dirección: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com

Página Web: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

II.16

Simona Magaña
15675 Ave. 384
Visalia, CA 93292

- I am the owner of a well, the water is not drinkable.
- Please help clean the water and prevent it from being contaminated.
- We want and need clean water.

Simona Magaña
15675 Ave. 384
Visalia, CA 93292

3.4.25.1 Responses to Letter 16

16-1

See Comment Letter 14, Response 1.

3.4.26 Letter 19—Adolfo Magana

Comment Letter IL19

Dirección Regional de Control de Calidad de Aguas de Central Valley
Programa Regulatorio a Largo Plazo de Tierras de Regadío
Formulario de Comentarios Públicos Anteproyecto Programático de Impacto Ambiental

Nombre: Adolfo Magaña
Domicilio: 15675 Ave 384
Visalia CA 93292
No. Teléfono (optativo): 528-9605
Email (optativo):

Comentarios/Problemas:

Soy dueño de perforación de agua.
El agua está contaminada con nitratos.
Por favor ayudenos a tener agua limpia
para tomar, regulando el agua.

19-1

Por favor utilize páginas extras si es necesario.

PRESENTE COMENTARIOS POR ESCRITO EN O ANTES DEL 27 DE SEPTIEMBRE A:

Dirección: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com
Página Web: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

II.19

Adolfo Magaña
15675 Ave. 384
Visalia, CA 93292

528-9605

I am the owner of a water well. The water is contaminated with nitrates. Please help us to have clean drinking water by regulating the water.

Adolfo Magaña
15675 Ave. 384
Visalia, CA 93292

3.4.26.1 Responses to Letter 19

19-1

See Comment Letter 14, Response 1.

3.4.27 Letter 141—A. J. Marcelli, Marcelli Farms

Comment Letter IL141

October 25, 2010

A.J. Marcelli
31076 County Road 29A
Winters, CA 95694

Region 5 Board Members
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Dear Board Members,

I have been made aware that you are developing a plan (that I must pay for) to control and monitor ground water. As you know we are currently monitoring all water leaving our property, and pay a fee (tax) through our coop to report our findings to you. We are required to have a license to dispense, report and monitor all pesticide use on the property. We use our underground water to irrigate crops and most of that water is reabsorbed on the property. What little water that is discharged is monitored by the coop and reported to you. We believe to charge an additional fee (tax) above all the other costs and regulation requirements would be so expensive and burdensome that we would have to stop farming. Especially in light of the Yolo county election to eliminate the Williamson act with its' subsequent huge tax increases, and the costs associated with replacing tractors that I use 50 hours or less a year. 141-1

If you promulgate additional regulations and costs, I will be forced to stop farming and turn a productive green row crop farm into a brown dirt farm.

Please do not make me pay for additional costs associated with this program. Thank you for taking the time to read my concerns.

Sincerely,

A.J. Marcelli

3.4.27.1 Responses to Letter 141

141-1

See Master Response 17 regarding regulatory burden to growers.

3.4.28 Letter 39—Chris Marenco, Marenco Cattle Co., Inc.

Central Valley Regional Water Quality Control Board
Long-term Irrigated Lands Regulatory Program
Draft Programmatic Environmental Impact Report Public Comment Form

Comment Letter IL39

Name: Chris Marenco
Mailing Address: 8475 Marenco Ranch Drive
Red Bluff, California 96080
Telephone No. (optional): 530-646-7021
Email (optional): Pmarenco@stackcable.net

Comments/Issues:

Dear Miss Megan Smith —

This ranch that I'm operating now has been irrigating pasture since 1950. We have recovery ponds and sump pumps at the end of every field. We do not discharge water off this ranch. As expensive as electricity is pumping water needs to be as efficient as possible. These new regulations and fees that the state is now proposing – will be a economic burden which could make it economically impossible to make this ranch (business model) as it is now function. I have talked to Alsco and Hartman pump and drilling, and they told me walnuts, almonds and other irrigated crops use the exact same amount of water as my livestock operation now does. I went to one meeting already and the state official said Northern California hasn't had a problem — so please regionalize these regulations and keep us out of the San Joaquin water related problems. 39-1

Please use additional sheets if necessary.

SUBMIT WRITTEN COMMENTS BY SEPTEMBER 27TH TO:

Mail: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com

Website: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

3.4.28.1 Responses to Letter 39

39-1

See Comment Letter 41, Response 2; Comment Letter 44, Response 14; Comment Letter 48, Response 1B; and Comment Letter 97, Response 6.

3.4.29 Letter 17—Esther Martinez

Comment Letter IL17

Dirección Regional de Control de Calidad de Aguas de Central Valley
Programa Regulatorio a Largo Plazo de Tierras de Regadío
Formulario de Comentarios Públicos Anteproyecto Programático de Impacto Ambiental

Nombre: Esther Martinez
Domicilio: Po Box 364 Alpaugh CA 93201

No. Teléfono (optativo): 559-802-7758
Email (optativo):

Comentarios/Problemas: Ustedes como administradores
Tienen que cuidar todas las contamina-
ciones de toda las aria
porque estos costos van
aumento
no deben de esperar a larga
plaso por que abra mas contaminacion
y costara mas dinero
nosotros como comunidad
nos preocupamo por todas las
familias de bajos ingreso
comensado por mi familia
Gracias
no olvider del cemo dela
camisa Roja

17-1

Por favor utilize páginas extras si es necesario.

PRESENTE COMENTARIOS POR ESCRITO EN O ANTES DEL 27 DE SEPTIEMBRE A:

Dirección: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com
Página Web: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

IL17

Esther Martinez
PO Box 368
Alpaugh, CA 93201

559-802-7758

You as administrators have to take care of all the contamination of all the areas because these costs are increasing. You should not wait long-term because there will be more contamination and it will cost more money. We as a community are concerned for all the low income families, beginning with my family.

Thank you.

Don't forget about the red shirt man.

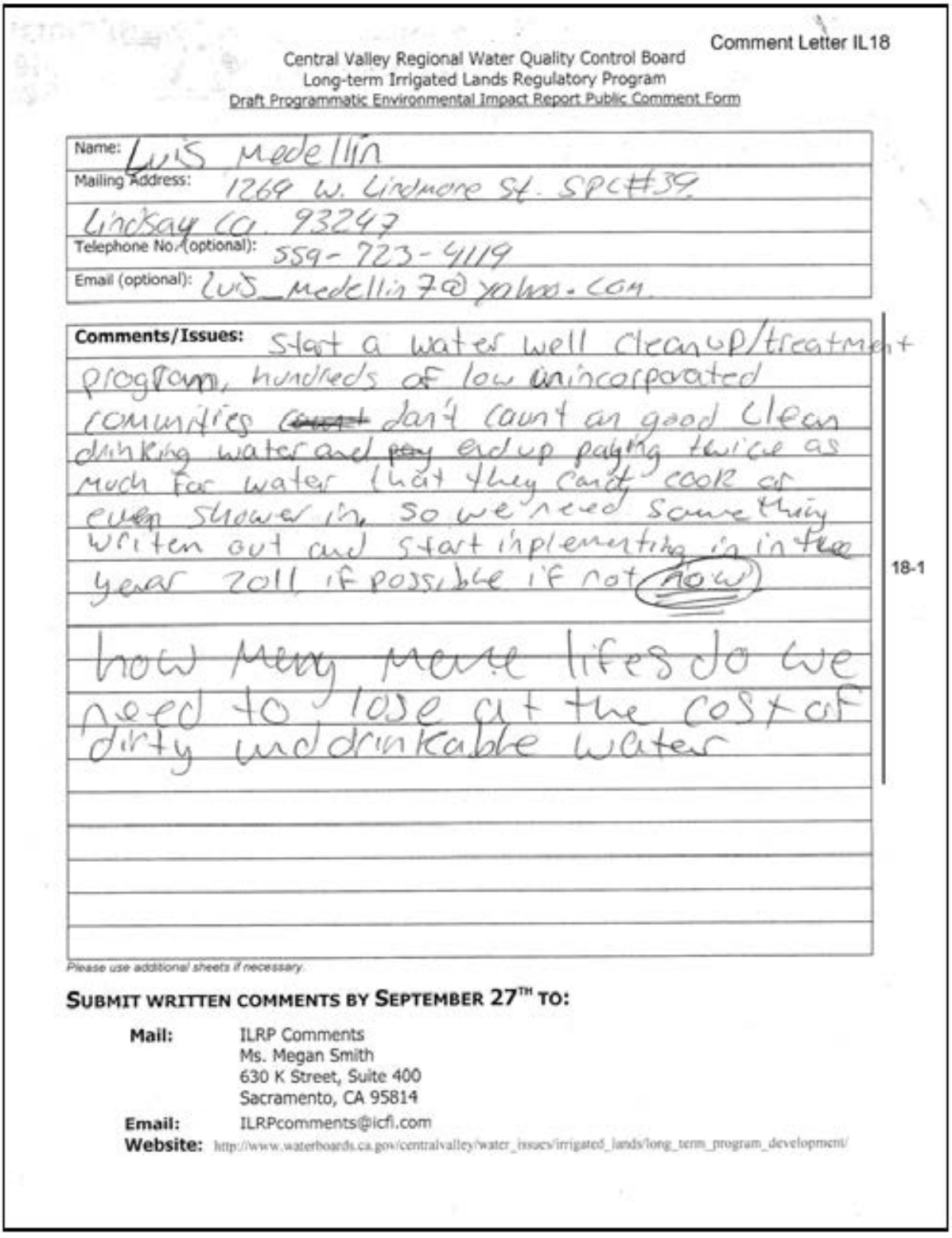
Esther Martinez
PO Box 368
Alpaugh, CA 93201

3.4.29.1 Responses to Letter 17

17-1

See Comment Letter 14, Response 1.

3.4.30 Letter 18—Luis Medellin



Comment Letter IL18

Central Valley Regional Water Quality Control Board
Long-term Irrigated Lands Regulatory Program
Draft Programmatic Environmental Impact Report Public Comment Form

Name: Luis Medellin
Mailing Address: 1269 W. Lindmore St. SPC#39
Lindsay CA. 93247
Telephone No. (optional): 559-723-4119
Email (optional): luis_medellin7@yahoo.com

Comments/Issues: Start a water well clean up/treatment program, hundreds of low unincorporated communities ~~count~~ don't count on good clean drinking water and ~~pay~~ end up paying twice as much for water that they can't cook or even shower in, so we need something written out and start implementing in the year 2011 if possible if not NOW

18-1

how many more lifes do we need to lose at the cost of dirty undrinkable water

Please use additional sheets if necessary.

SUBMIT WRITTEN COMMENTS BY SEPTEMBER 27TH TO:

Mail: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com

Website: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

3.4.30.1 Responses to Letter 18

18-1

See Comment Letter 14, Response 1.

3.4.31 Letter 14—Joanna Mendoza

Comment Letter IL14

Central Valley Regional Water Quality Control Board
Long-term Irrigated Lands Regulatory Program
Draft Programmatic Environmental Impact Report Public Comment Form

Name: Joanna Mendoza
Mailing Address: 12650 Hazel Ave Cutler, Ca 93615
Telephone No. (optional):
Email (optional):

Comments/Issues:

I live in a small community. My community is Cutler, and my water is contaminated with DBCP. My family pays a water bill of $58 a month for water we can't drink. The cost for bottled water is very expensive. When we buy bottled water it's like double of the cost for the water bill. My district sends us a notice that the water is contaminated with DBCP. It also says that this is not an immediate risk, but if you've been drinking the water for many years, you have an increased risk of getting cancer. Well the years are passing, and people are getting sick. Nitrates is also a problem in Orosi. This is because of the fertilizer that is sprayed on orchards and fields. It gets in our groundwater, and this is what the communities are drinking. 14-1 14-2

Please use additional sheets if necessary.

SUBMIT WRITTEN COMMENTS BY SEPTEMBER 27TH TO:

Mail: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com

Website: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

3.4.31.1 Responses to Letter 14

14-1

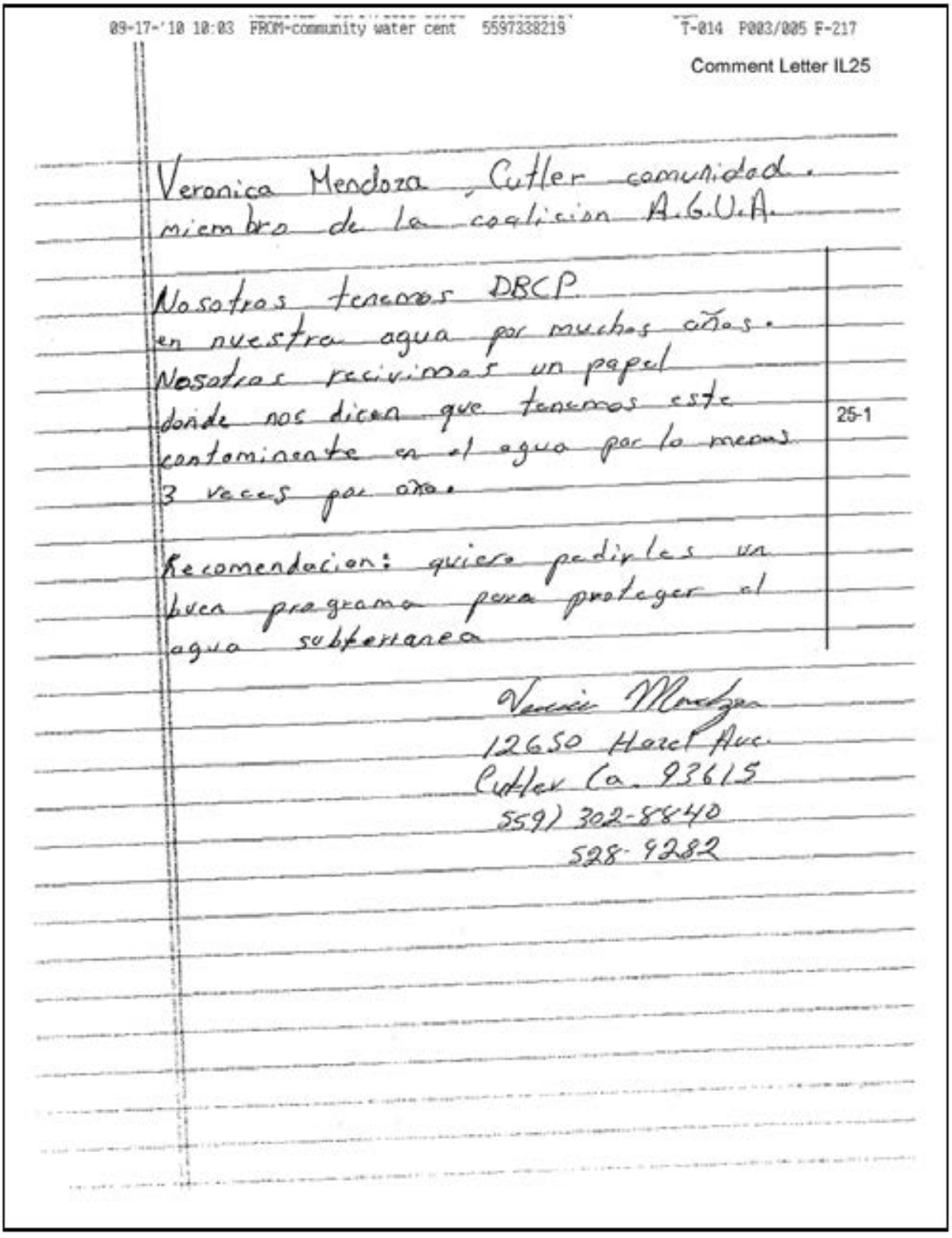
The Central Valley Water Board shares the concern regarding the need for clean drinking water. Objective 1 in the development of the Long-term ILRP is to restore and/or maintain appropriate beneficial uses established in Central Valley Water Board Water Quality Control Plans by ensuring that all state waters within the Central Valley meet applicable water quality objectives including drinking water standards.

The comment specifically references groundwater pollution caused by DBCP use. DBCP is not currently registered for use by irrigated agriculture. Because the compound is no longer used by irrigated agricultural operations, it is unlikely that these operations are currently discharging DBCP to groundwater. The ILRP would not require any source control management practices (specifically to reduce DBCP discharge) where current operations are not discharging DBCP to groundwater. There are other Water Board programs specifically designed to require cleanup of pollution See Comment Letter 123, Response 62.

14-2

See Comment Letter 14, Response 1. The Central Valley Water Board understands that the Orosi Public Utility District is currently in the review process for funding under Proposition 84. If the application is accepted, the proposed improvement project will greatly improve the drinking water quality in this area.

3.4.32 Letter 25—Veronica Mendoza



09-17-'10 10:03 FROM-community water cent 5597338219 T-014 P003/005 F-217

Comment Letter IL25

Veronica Mendoza, Cutler comunidad.
miembro de la coalicion A.G.U.A.

Nosotros tenemos DBCP
en nuestra agua por muchos años.
Nosotros recivimos un papel
donde nos dicen que tenemos este
contaminante en el agua por lo menos
3 veces por año. 25-1

Recomendacion: quiero pedirles un
buen programa para proteger el
agua subterranea

Veronica Mendoza
12650 Hazel Ave.
Cutler Ca. 93615
559) 302-8840
528-9282

II.25

Verónica Mendoza
Cutler Community
Member of the Association of People United for Water (*Asociacion de Gente Unida por el Agua*. [A.G.U.A.]) Coalition

We have had dibromochloropropane (DBCP) in our water for many years. We receive a sheet of paper telling us that we have this contaminant in the water at least three times per year.

Recommendation: I would like to ask you for a good program for protection of the underground water.

[signed: Veronica Mendoza]
12650 Hazel Ave.
Cutler, CA 93615
559-302-8840
528-9282

To: Ms. Megan Smith
Fax: 916-456-6724
From: Marta Herrera
Date: 9/17/10
Pages: 5
Re: ILRP Comments

3.4.32.1 Responses to Letter 25

25-1

See Comment Letter 14, Response 1.

3.4.33 Letter 22—Greg Merwin, Clarksburg Farmer

Comment Letter IL22

Sept 21, '10
To Region 5 Board Members
RE Long term Irrigated Lands Recommended Program
This is obviously designed to extract more money and water from an Ag Industry that is already reeling from a dirth of both. How about using the data already available, and concentrating on new sources such as desalinization, Its time to do some serious bullet biting.
Greg Merwin – Clarksburg farmer

22-1

3.4.33.1 Responses to Letter 22

22-1

The proposed ILRP has a specific goal to maintain the economic viability of agriculture; the Central Valley Water Board is working to minimize costs while achieving state water quality protection goals. Coordination with other agencies and programs is an objective to allow the Board to take advantage of existing data.

3.4.34 Letter 121—Trent Meyer

Comment Letter IL121

From the desk of Trent L. Meyer

September 26, 2010

TO: Region 5 Board Members,

Re: Long Term Irrigated Lands Recommended Program

I have serious concerns about the proposed Long Term Irrigate lands Program. This is a major expansion of the current IRLP. It will place increased regulatory financial burdens on agriculture, even though the water quality testing performed during the IRLP has shown very few water quality problems caused by agriculture.

The estimates in the draft PEIS to administer the program will range from approximately $4,000,000.00 to $66,000,000.00 depending on the alternative chosen. Over 95% of these costs would be funded by agriculture.

The economic analysis estimated to be at least $5,000.00 per grower to characterize surface and groundwater quality for low impact areas, in addition to costs for water quality testing.

There seems to be many flaws in fundamentally wrong assumptions in the economic analysis. Monitoring cost is underestimated and changes in the underlying assumptions will result in substantial increases in costs to agriculture.

Groundwater quality in the Sacramento Valley is very good with few problems associated to agriculture. There is already extensive groundwater monitoring programs in existence. Duplicating these tests waste time, resources and money, not to mention testing companies and labs are making a killing.

The assumption that the act of irrigating crops is considered a discharge to groundwater that causes the degradation of groundwater is not provable or plausible in many areas of the state. Your board has never addressed the benefit of water recharge to the aquifers agriculture provides. This aspect must be included in any of your analysis, comments and proposals. Your board must address this aspect before continuing. With no knowledge of what is needed to keep the aquifers recharged, your monitoring program is useless. Long term aquifers are much more important that creating more governmental bureaucracy. No water to pump, no food, no jobs, no taxes. 121-1

Trent Meyer
24700 Co. Rd 95
Davis, CA 95616
trentmeyer@jps.net
530-400-865

3.4.34.1 Responses to Letter 121

121-1

The Central Valley Water Board is aware of and will consider the benefits that agricultural irrigation can provide in groundwater recharge. Because this is a programmatic document and the location and extent of reduced groundwater recharge, if any, are unknown, there has been no speculation on the potential for and the significance of this effect. Also see Master Response 7.

3.4.35 Letter 27—Josie Nieto

09-17-'10 10:03 FROM-community water cent 5597338219 T-814 P005/005 F-217

Comment Letter IL27

Josie Nieto , Seville/ contaminada
The town water is ~~contaminated~~
we pay $60 a month but the
water can't be used for Drinking
we has to buy gal water for
drinking and cooking. 27-1

We would they for You to
do Your Job protect our water,

Josie Nieto
15666 Seville
Ave Seville

3.4.35.1 Responses to Letter 27

27-1

See Comment Letter 14, Response 1.

3.4.36 Letter 83—Linda Ormonde

Comment Letter IL83

Central Valley Regional Water Quality Control Board
Long-term Irrigated Lands Regulatory Program
Draft Programmatic Environmental Impact Report Public Comment Form

Name: LINDA ORMONDE
Mailing Address: P.O. Box 217
HOLT, CA 95234
Telephone No. (optional):
Email (optional): lmo 2430 att.net

Comments/Issues: Sept 23, 2010

The Cost factor of implementing any of the alternatives is underestimated.

The cost That are indirect to the producers are not taken into the Calculations. The cost of keeping up with the Regulations increase through more cost to individual producers for getting needed information, hiring professional advisors. 83-1

To water districts, Reclamation districts and coalitions having to charge more to producers to pass the cost on to producers.

In the past Five years the increase in these cost is due directly to more Regulations and will continue to increase in the future. This will drive producers out of business.

Please use additional sheets if necessary.

SUBMIT WRITTEN COMMENTS BY SEPTEMBER 27TH TO:

Mail: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com

Website: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

3.4.36.1 Responses to Letter 83

83-1

See Master Response 17. The costs for planning, monitoring, education, and reporting requirements were considered for each alternative.

3.4.37 Letter 21—Ana Karen Orozco

Central Valley Regional Water Quality Control Board
Long-term Irrigated Lands Regulatory Program
Draft Programmatic Environmental Impact Report Public Comment Form

Comment Letter IL21

Name: Ana Karen OROZCO
Mailing Address: ~~anna-4-oscar@hotmail.com~~
41778 Fruitvale Ave. E. Orosi CA 93647
Telephone No. (optional): (559) 528-0711
Email (optional): anna-4-oscar@hotmail.com

Comments/Issues:

My name is Ana Karen OROZCO. I live in E. OROSI CA. I part of Youth-4 AGUA In my community I cant drink the water the reson why is because is has high leval of nitrates. This is true for many other community. in the valley My partents have to ~~buy~~ pay $57.00 for water a month & they also have to ~~buy~~ drinking water (botale water) for making food & us to drink. So I would like the water board to do its job right & help us clean are water because WE ARE the future in E. OROSI. I I dont belive its right for us to have to buy water for us to drink & pay for water bill.

21-1

Please use additional sheets if necessary.

SUBMIT WRITTEN COMMENTS BY SEPTEMBER 27TH TO:

Mail: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

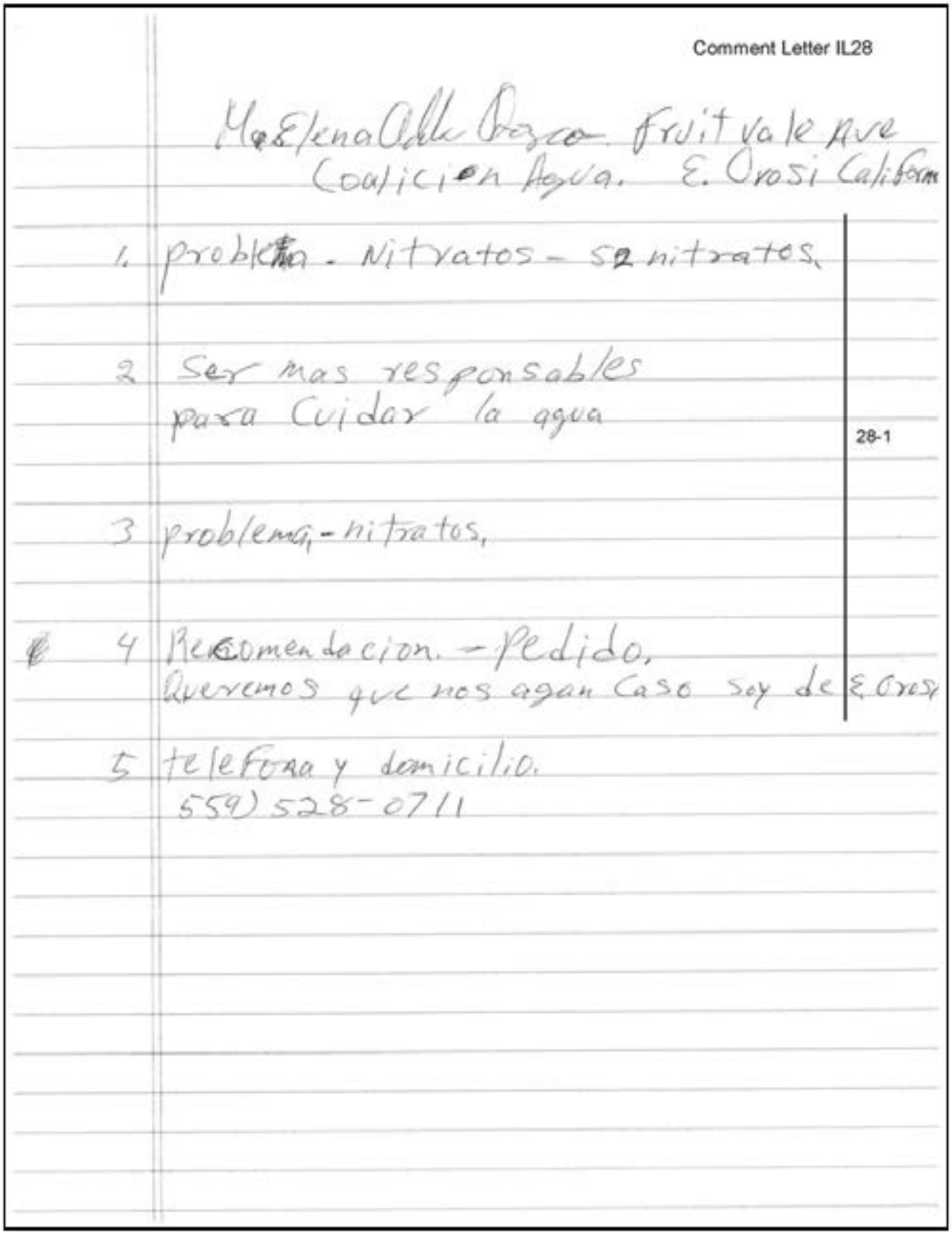
Email: ILRPcomments@icfi.com
Website: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

3.4.37.1 Responses to Letter 21

21-1

See Comment Letter 14, Response 1.

3.4.38 Letter 28—Maria Elena Orozco



Comment Letter IL28

Ma Elena Orozco. Fruit vale Ave
Coalicion Agua. E. Orosi Californ

1. problema. Nitratos - 52 nitratos.

2. Ser mas responsables
para Cuidar la agua

28-1

3. problema - nitratos.

4. Recomendacion. - Pedido.
Queremos que nos agan Caso soy de E. Orosi

5. telefona y domicilio.
559) 528-0711

11.28

Ma. Elena Adela Orozco
A.G.U.A. Coalition
Fruitvale Ave.
E. Orosi, CA

1. Problem – Nitrates – 52 nitrates
2. Be more responsible for taking care of the water
3. Problem – nitrates
4. Recommendation – Request
   We want you to pay attention to us. I am from E. Orosi
5. Telephone and address
   559-528-0711

Maria Elena Orozco
41728 Fruitvale Ave
Orosi, CA 93647

3.4.38.1 Responses to Letter 28

28-1

See Comment Letter 14, Response 1.

3.4.39 Letter 8—Jesus Quevedo

Comment Letter IL8

Dirección Regional de Control de Calidad de Aguas de Central Valley
Programa Regulatorio a Largo Plazo de Tierras de Regadío
Formulario de Comentarios Públicos Anteproyecto Programático de Impacto Ambiental

Nombre: JESUS Quevedo
Domicilio: 12610 Rail Road DR
Cutler Ca 93615
No. Teléfono (optativo): 559-528-6505
Email (optativo):

Comentarios/Problemas:

agua contaminada a
600 Pies de Profundidad
las escuelas no tienen agua
limpia para tomar

que se examinen Regulaciones
mas estrictas para detener la
epidemia de enfermedades
por causa de los pesticidas
y Fertilizantes

que la mesa Regional
aga su Trabajo mas
efectivo

muchas gracias por material en
especial y la traduccion

8-1

Por favor utilize páginas extras si es necesario

PRESENTE COMENTARIOS POR ESCRITO EN O ANTES DEL 27 DE SEPTIEMBRE A:

Dirección: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com
Página Web: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

IL8

Jesús Quevedo
12610 Rail Road Dr.
Cutler, CA 93615

559-528-6505

Water contaminated to 600 feet deep. The schools do not have clean water to drink.

[illegible] more effective regulations to stop the wave of diseases due to pesticides and fertilizers.

The Regional Board should do its work more effectively.

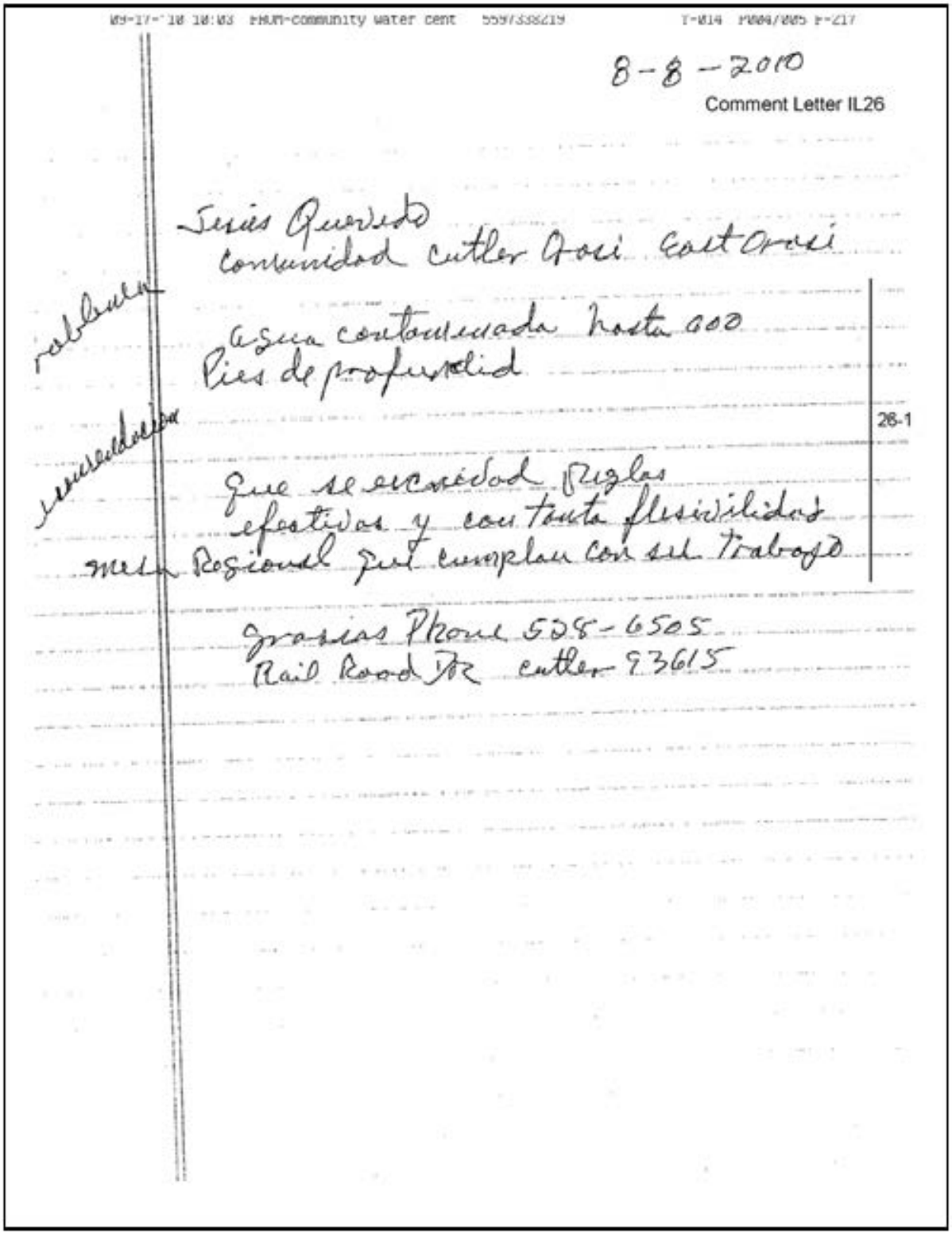
Thank you very much for material in Spanish and the translation.

3.4.39.1 Responses to Letter 8

8-1

See Comment Letter 14, Response 1.

3.4.40 Letter 26—Jesus Quevedo



09-17-'10 10:03 FROM-Community Water Cent 5597338219 T-814 P004/005 F-217

8-8-2010

Comment Letter IL26

Jesus Quevedo
comunidad cutler Orosi East Orosi

problema

agua contaminada hasta 600
Pies de profundidad

26-1

recomendacion

que se excedad Reglas
efectivas y con tanta flexibilidad
mesa Regional para cumplan con su trabajo

gracias Phone 528-6505
Rail Road Dr cutler 93615

II.26

9/8/2010

Jesús Quevedo
Cutler Community
Orosi East Orosi

Problem: Water contaminated to 600 feet deep

Recommendation: [illegible] effective regulations with enough flexibility Regional board should do its work

Thank you.
Phone 528-6505
Rail Road Dr.
Cutler 93615

To: Ms. Megan Smith
Fax: 916-456-6724
From: Maria Herrera
Date: 9/17/10
Pages: 5
Re: ILRP Comments

3.4.40.1 Responses to Letter 26

26-1

See Comment Letter 14, Response 1.

3.4.41 Letter 40—Rebecca Quintana, Board Member, Stone Corral School District

Comment Letter IL40

Rebecca Quintana
15524 Ave. 381
Visalia, CA 93292
(559) 736-2869

September 17, 2010

Re: ILRP Comments

Dear Ms. Smith,

As board member of the Stone Corral School District in Seville and valley resident, I am writing to ask the Regional Water Board to develop an Irrigated Lands Regulatory Program that is strong enough to reduce fertilizer and pesticide pollution of our valley's water resources before any more schools and communities lose their source of safe drinking water.

Students at Stone Corral School are unable to drink the water from the fountains because it has high levels of nitrates. As a result, our school is forced to spend anywhere from $400-$600 a month on bottled water. Additionally, when our students go home they are also faced with the same reality. Seville families are also forced to seek alternative water sources. This is in addition to our $60 a month water bill. We are a small unincorporated community and many of our residents are farmer workers. Our residents and schools cannot afford the cost of contamination. However, Seville and Stone Corral School are not alone, many other valley schools and communities are also facing this problem. 40-1

The Board has the job to protect our drinking water sources from all sources of contamination including irrigated ag. I understand that it is hard to stand up against pressure from agricultural interests here in the Valley. But we are counting on the board to do its job, and make sure this program is effective so that our children will still be able to find water that is safe to drink.

The board needs to develop a program that includes: (1) a way to collect basic information from farms, such as how much fertilizer is being applied and how much nitrate is already in Valley water supplies; (2) individual farm plans for extremely high risk areas that include clear guidance for farmers on what practices are necessary to protect water from contamination; and (3) adequate enforcement mechanisms so that this program results in meaningful, widespread changes. 40-2

Sincerely,

Rebecca Quintana

Rebecca Quintana

3.4.41.1 Responses to Letter 40

40-1

See Comment Letter 14, Response 1.

40-2

The recommendations in this comment have been considered and evaluated in the Draft PEIR, the Draft PEIR, Appendix A, and the Draft ILRP Economics Report. Requirements for fertilizer tracking, monitoring of existing wells, and individual farm water quality plans are contained in the range of alternatives considered. ILRP requirements will be implemented through waivers and WDRs. The requirements of waivers and WDRs are fully enforceable under the California Water Code.

3.4.42 Letter 38—Jessica Sanchez, Agua Youth Representative

Comment Letter IL38

Central Valley Regional Water Quality Control Board
Long-term Irrigated Lands Regulatory Program
Draft Programmatic Environmental Impact Report Public Comment Form

Name: Agua Youth Representative (Jessica Sanchez
Mailing Address: 13922 Florida Ave E. Orosi, Ca 93647

Telephone No. (optional): (559) 528-6467
Email (optional): jay6469@gmail.com

Comments/Issues:

Hello, my name is Jessica Sanchez. I'm part of Youth For A.G.U.A, as for all the problems I have in mind there is only one that really stresses me out day and night is the water problem. In my community the water is contaminated with Nitrates It upsets me a lot because no one realizes how bad this problem is, People can die from drinking this water. Not only they get affected but also unborn children, because they don't get a chance to live one day just because the water is contaminated We try to provide awareness in our group but its hard to be everywhere at one time just giving a little of our time to be telling people that they can't drink their tap water. This is why it angers me that nobody does anything to try to fix it. So please, I beg you change this for the future generations to come.

Thank You,

38-1

Please use additional sheets if necessary.

SUBMIT WRITTEN COMMENTS BY SEPTEMBER 27TH TO:

Mail: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com

Website: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

3.4.42.1 Responses to Letter 38

38-1

See Comment Letter 14, Response 1.

3.4.43 Letter 114—Ryan Schohr

Comment Letter IL114

Ms. Smith,

I am 5th Generation California farmer, and wanted to make a few comments on the Irrigated Lands Regulatory Program (ILPR) Environmental Impact Report (EIR). Below, I will address several areas of concerns. My comments will address what's found in the entire document, and should not me misrepresented as being only relevant to any one of the 5 "alternatives," but rather addressing what's been presented through the EIR as a whole.

I. Staff remarked at the September 10th workshop in Chico, California that in preparing the economic impact of the alternatives, data pertaining to the economic productivity (production value in US Dollars) of specific crops grown in the region, were nearly a decade old in some cases. This brings up the following questions: 114-1

A. More current (less than two years old) and, subsequently more accurate, production values should have been used in the economic forcasting, and therefore represented in the economic impact analysis of the alternatives.

1. Current economic production data for crops grown in the region are prepared annually, as mandated, by California's County Agricultural Commissioners and provided publicly. This information should have been included to reflect current crop patterns and market conditions. In some cases, the production value of certain crops grown in the region has increased substantially, while others have declined. The information is readily available, and should have be used when presenting data to the board, and the public, when addressing the production value of crops going forward. 114-2

i. Why was more current and accurate data from County Agricultural Commissioners, or the United States Department of Agriculture's various entities, not used the preparation of the documents?

II. Staff also remarked at the September 10th workshop in Chico, California, that forecasts (from the model used to predict the economic impact) indicated a trend away from the production of lower value crops like grain, and towards increasing production of high-value crops in the wake of the additional burden placed on landowners and farmers from this regulation. However, it was also mentioned that the model **did not** include what would happen to the value of production should this supposed shift in crops change supply and demand (crop pricing conditions) conditions following the shift in crops. This information should be included. Evidently, according to staff, the model also **did not** account for the suitability of a shift in cropping patterns of specific areas in the region. 114-3

B. A shift of cropping patterns towards what are purported to be higher value crops in the EIR will cause a change in the particular commodity's supply and demand, therefore negatively impacting (through the commodity price) the perceived "higher value" after the shift occurs.

1. If farmers and landowners shifted production away from crops such as grains like oats, wheat, or rice, towards orchard crops such as almonds, peaches, or walnuts, as the staff predicts, there would be a greater supply of orchard crops. For centuries, economists have known that a greater supply leads to reduced prices.
    i. *Why did the model and subsequent economic impacts consider a change in cropping patters, yet chose to ignore the result of the shift by accounting for the greater supply of such crops?*

114-3 cont'd

C. Evidently, a shift in cropping patterns was included in the model and forecasting of economic production, yet **did not** consider the suitability of certain areas within the region itself. For example, orchard crops like almonds cannot be planted in colder areas of the region, such as the mountainous areas, and the crops are also not suited for those soils in many cases. As such, not all crops are suited for all areas of the region.
    i. *Why did the model and subsequent economic impacts not accurately reflect climate variability (as they currently existing) in the region when calculating a shift towards "higher value crops?"*

114-4

D. It is not clear if the economic model of the value, after the implementation of any of the "alternatives," of future agricultural production included, or accounted for, the extreme economic impacts of a shift in crop production.
    1. For example, to shift from bare land, where wheat or hay might have one been grown, into a productive orchard may take several years at a cost of several thousand dollars per acre.
        i. *Did the model and economic forecasts for any of the alternatives include the land preparation costs (such as those incurred when planting an orchard like deep-ripping, soil pH balancing treatments or amendments, cost & installation of irrigations systems, nursery costs for procurement of trees or vines, etc.), and if not, why?*

114-5

    2. During a shift to "high value crops" under the assumptions commented on by staff at the Chico meeting, say from grain crops to orchards, several years may pass before newly planted orchards bear any quantities of harvestable or marketable fruit or nuts.

        i. *Did the economic model used to determine future agricultural production for any of the alternatives consider the economic loss of revenue to farmers, landowners, and to "third parties" such as processors, canners, packaging firms, herbicide applicators, custom harvesting firms, water districts, crop protection suppliers, and crop transportation (trucking) firms, and if the model and/or the economic information presented in the alternatives fail to include these types of economic losses for consideration? If so, why?*

114-6

3. During a shift from low value crops to high value crops, as was discussed at the Chico meeting by staff and members of the public, it was noted that the availability within the region of some of these lower value commodities such as hay, feed grains, and livestock feed, at certain times of the year may not be available to livestock producers at an economically feasible market price.

    i. *Did the economic models used to determine the subsequent economic impacts on future agricultural production include costs to livestock producers who have indicated they could see significant costs incurred to source feed products such as hay and grain, outside of the region, or even outside of the State of California, should the preferred alternatives facilitate a shift in cropping patterns away from low value crops? If it failed to take these costs into consideration and show their impact, why not?* 114-7

III. As discussed in my comments above, staff seemed to indicate that the EIR for the preferred alternatives took into account a wide variety of environmental impacts. However, it appears as though the EIR failed to include negative impacts to the environment caused by the assumed shift in cropping patterns caused by the regulations under the alternatives.

1. During the assumed shift from low value grain crops towards higher value commodities such as fruits, nuts and vine crops, valuable foraging, nesting, and resting areas for hundreds of species of waterfowl and wildlife will no longer be available.

    i. *For example, wheat, hay, and rice fields are home to both nesting and migrating waterfowl, and as forecasts under the alternatives have eluded to, a shift away from these types low value types of grain and field crops towards other crops such as orchards of almonds, walnuts, or prunes will reduce the overall area available for this nesting, foraging, and migrating waterfowl, as these types of high value crops are not conducive to those types of activities of waterfowl and wildlife, and the EIR should have mentioned this loss of habitat, as it currently exists in grain and field cropland, as a significant impact.* 114-8

    ii. *Were mitigation costs, to provide for the loss of habitat as mentioned above, included under the costs of program alternatives in the noted economic impacts, and if not, why? The program EIR should include these costs.*

2. It appeared as though the EIR failed to include potential groundwater related impacts due to increased groundwater use, as well as the associated increase in energy use by groundwater extraction, due to the assumed change in cropping patterns.

    i. *The EIR should shed light on the potential for increased groundwater extraction due to the assumed shift from low value to high value crops. For example, many orchards and vineyards use groundwater as an irrigation source, despite being allocated surface water through a water district, as groundwater is simply easier, more efficient, and less labor intensive to use for irrigation through sprinkler or drip type apparatuses installed in the orchard, than surface water. The increased use of groundwater and energy used in its extraction and pressurizing of irrigation systems should be accounted for in the EIR.*

114-9

IV. In going forward with any of the alternatives or a combination of them, it is imperative that ongoing, publicly funded efforts for groundwater monitoring not be unnecessarily duplicated or changed.

A. For example, the over the past several years, voters through various propositions, and by way of allocation from the state legislature, have provided millions of dollars in funding and grants to public entities to create groundwater monitoring operations. These operations, which in some cases have been monitoring groundwater for several years, should not be overlooked, by staff or consultants working on the ILRP. Instead, these operations already being conducted should be sought out and utilized for their expertise in ongoing groundwater monitoring. They should also be considered in developing or changing any of the alternatives under the ILRP going forward. In addition, their historical data should not be marginalized in any way, and should be included and designated as sufficient for the purpose of historical groundwater data should that be necessary going forward.

    i. *For example, Butte County already conducts groundwater monitoring operations, funded primarily by the State of California. Were efforts like these ever considered when formulating the alternatives in the ILRP? In addition, the county works with several other counties in the project area on similar, regional, collaborative efforts. These local efforts should be highlighted and promoted going forward. It should be considered a waste of taxpayer funds to re-create or further regulate groundwater and groundwater management in these areas who are already actively monitoring.*

114-10

V. The preferred alternative recommended for final adoption should be the one in which would cost industry, taxpayers and state's treasury the very least. Furthermore, funding and mitigation costs for these efforts, under any of the program alternatives, which would further regulate and cause economic hardships to should those who irrigate land, should be borne only by those landowners or farmers willing to participate on a **voluntary** level. In any other case, those seeking further information from the monitoring or regulation proposed by these alternatives should be held responsible for funding these efforts, i.e., "user fees." In nearly all cases, a government entity of some type has granted, in many cases by deeded right, to landowners the right to irrigate lands either through surface water deliveries, groundwater extraction, or through riparian rights (or combinations thereof). These rights should not be impeded upon by any means. Public agencies or other non governmental entities, whether through agency directive or court decree, which seek to place additional restrictions on the use of such water, should be held accountable for providing funding for performing any these tasks, directives, or mandates from the ILRP program alternatives. 114-11

a. Further public input should be conducted on the program alternatives, as well as the EIR. The series of meetings held throughout the region over the past two months were not at all adequate. The use of "breakout" areas or rooms, lack of time allocated for questions and answers, and the lack of a general comment period (time) on the agenda during the meetings was not conducive to an environment which fostered healthy comments and questions from members of the public, but rather served to divide the room so that members of the public were not allowed to hear all the questions, comments, or their answers. 114-12

In closing, thank you for taking the time to appropriately review my comments. I look forward to my comments being addressed. If you need further assistance or clarification from me, please do not hesitate to contact me for assistance.

Ryan Schohr

1523 Ridgebook Way

Chico, CA 95928

530-570-7926 (cell)

3.4.43.1 Responses to Letter 114

114-1

See Master Response 17.

114-2

See Master Response 17.

114-3

See Master Response 17.

114-4

See Master Responses 16 and 17.

114-5

See Master Response 17.

114-6

See Master Response 17.

114-7

See Master Response 17.

114-8

The commenter is referred to Master Response 15 for a further discussion of the effects of agricultural land conversion.

114-9

There is the potential for changes in groundwater use as a result of agricultural land going out of production or changing crop types from implementation of the Long-term ILRP. However, it is not known where and to what extent land use change would occur. Because of the difficulty in predicting land use change, many of the potential indirect effects of this change are considered speculative. See Master Response 14.

See Chapter 4, Revisions to the Draft Program Environmental Impact Report, pages 4-2–4-8 in this Final PEIR for an updated discussion of air quality effects caused by implementation of one of the proposed IRLP alternatives related to the farmers switching from flood and furrow irrigation to pressurized irrigation management practices.

114-10

The existence of local groundwater management and monitoring efforts has been considered during the development of ILRP alternatives. These efforts are summarized in the description of

Alternative 1 (see Appendix A of the Draft PEIR, Appendix A, pages 7–8). Alternatives 2 and 6 incorporate means for the Central Valley Water Board to approve substitution of appropriate existing plans for the ILRP GQMP.

The development of orders (waivers, WDRs), under Alternative 6, specific to geographic areas would facilitate coordination between the ILRP and other programs. The geographically-based orders would allow the Central Valley Water Board and water quality coalitions to coordinate and consider existing practices and monitoring associated with DPR, local groundwater management programs, and other programs; consider existing local regulatory efforts; thus minimizing duplication of efforts and multiple overlapping regulatory requirements.

114-11

The comment's support for the least costly alternative and voluntary participation, and concerns regarding irrigation water rights will be considered in the development of the ILRP. Note that the ILRP is strictly a water quality program for waste discharge to state waters and does not apply to utilization of water rights. Any water right granted does not include a right to discharge waste to waters of the state.

114-12

The Central Valley Water Board disagrees that the opportunity for public input was inadequate and does not propose to hold additional meetings on the Draft PEIR. Over the course of more than two years, ample opportunity has been provided for public input (see Draft PEIR, pages 2-7–2-10). Additional opportunity for public input will be available when the Board considers the Final PEIR at the April 6/7/8, 2011 Board hearing.

3.4.44 Letter 13—Joan C. Townsend

Comment Letter IL13

Central Valley Regional Water Quality Control Board
Long-term Irrigated Lands Regulatory Program
Draft Programmatic Environmental Impact Report Public Comment Form

Name: Joan C Townsend
Mailing Address: 32 E Rio Bonito Rd
Biggs, Ca 95917
Telephone No. (optional):
Email (optional): jobiggs@sbcglobal.net

Comments/Issues:

Our State is so broke!
How can we afford to
start or implement another
costly monitoring system
Stay w the # 1 alternative!!

13-1

Please use additional sheets if necessary.

SUBMIT WRITTEN COMMENTS BY SEPTEMBER 27TH TO:

Mail: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com
Website: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development

3.4.44.1 Responses to Letter 13

13-1

See Master Response 17.

3.4.45 Letter 128—Harry Turiello

Comment Letter IL128

To: Regional Water Quality Control Board

From: Your name HARRY TURIELLO

Date: The date 9-13-10

Re: The proposed Ag Waiver Fee Increase to the 2010-11 State Budget

As a member of the Northeastern California Water Association (NECWA), I am writing to the Regional Water Quality Control Board in **opposition** of the ag waiver water quality fee increase proposed in the Governor's 2010-11 budget.

Our small coalition in the Upper Pit River Region has been part of the Irrigated Lands Program since 2002 and an increase from the existing 12 cents per acre to 49 cents per acre will cause a significant financial impact on the already financially stressed local ag economy. Our geographic area consists of mostly small family farms and ranches and not the large factory farms. These proposed fee increases will have a greater impact on the smaller farming and ranching operations. We already struggle with the existing program costs, a 300+% increase alone as well as unforeseen and unregulated fee increases in the future could be detrimental to our farms and ranches. 128-1

Support us, NECWA, and support me by opposing the proposed ag waiver fee increase included in the 2010-11 California State Budget and to begin working on area specific programs that can be locally managed and affordable to our agriculture base.

Thank you for your support,

Harry J. Turiello

3.4.45.1 Responses to Letter 128

128-1

See Master Response 17.

3.4.46 Letter 76—Tony Turkovich, Button and Turkovich

Sep 27 2010 10:28AM BUTTON*TURKOVICH, LLC 5307953331 p.1

Comment Letter IL76

Ms. Megan Smith
630 K Street
Suite 400
Sacramento, Ca. 95814

Sept. 27,2010

Dear Ms. Smith,

I am writing to express my concern about the Long Term Irrigated Lands Regulatory Program as I understand the staff is proposing. It appears that this program is going to be very expensive to administer. That cost will be a major contributing factor in determining the future viability of agriculture in California. Farmers need to continue to increase their efficient use of water in order to minimize impacts on the environment. Likewise the Regulatory Program must be designed to be efficient in identifying areas that need attention and not smother agriculture in regulation and cost were problems don't exist. That does not appear to be the case in this proposal. 76-1

Our farm has had a very aggressive and expensive program of installing drip irrigation systems to increase the efficient use of water and to minimize impacts on the environment. We will probably suspend any further projects until the regulatory picture clears up. It does not make sense to spend huge amounts of money on the farm if the regulatory program will ultimately make the investment worthless.

It is my understanding that the Sacramento Valley has few groundwater quality problems and there are a number of agencies already testing. Why add another layer of regulation and cost to this effort? Why not utilize the efforts that are already there? 76-2

Please try to target the program to the problem areas and keep the cost affordable.

Thank you for any consideration you can give to these thoughts.

Sincerely,

Tony Turkovich
Button and Turkovich

3.4.46.1 Responses to Letter 76

76-1

See Master Response 17.

76-2

This comment will be considered in the development of the Long-term ILRP.

3.4.47 Letter 29—Lucino and Ana Vargas

Dirección Regional de Control de Calidad de Aguas de Central Valley
Programa Regulatorio a Largo Plazo de Tierras de Regadío
Formulario de Comentarios Públicos Anteproyecto Programático de Impacto Ambiental

Comment Letter IL29

Nombre: Lucino y Ana Vargas
Domicilio: 22788 Ave 70. Ducor Ca.
P.O. Box 543 Ducor, CA 93218
No. Teléfono (optativo): (559) 534-7539
Email (optativo):

Comentarios/Problemas:

Somos dueños de un pozo privado. El pozo es relativamente nuevo pero mandamos examinar el agua para tener la Confianza completa de Consumirla, Fue una sorpresa para nosotros saber los resultados. El agua esta Contaminada con altos niveles de Nitratos. Devido a este problema d' Contaminacion tenemos que Comprar el agua para Cosinar y beber, para nosotros a sido un grave problema ya porque el pueblo más cercano a nuestro hogar esta a 25 millas a sido muy Costoso para nosotros. 29-1

Deseamos que la mesa regional desarrolle algun plan para tierras irrigadas y nos ayude Con este gran problema Como es la Contaminacion del agua, puesto que es un producto tan esencial para nuestra Vida.

Por favor utilize páginas extras si es necesario

PRESENTE COMENTARIOS POR ESCRITO EN O ANTES DEL 27 DE SEPTIEMBRE A:

Dirección: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com

Página Web: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

11.29

Luciano and Ana Vargas
22788 Ave. 70, Ducor, Ca.
PO Box 543, Ducor, CA 93218

559-534-7539

We are the owners of a private well. The well is relatively new but we sent the water to be tested so that we might be completely confident when using it. The results were surprising to us. The water is contaminated with high levels of nitrates. Because of this contamination problem, we have to buy water for cooking and drinking. This has been a serious problem for us because the town closest to our home is 25 miles away. It has been very expensive for us.

We would like the Regional Board to develop a plan for irrigated lands and help us with this large problem of water contamination since water is so essential to our lives.

Ana [illegible] Luciana Vargas
PO Box 543
Ducor, CA 93218

3.4.47.1 Responses to Letter 29

29-1

See Comment Letter 14, Response 1.

3.4.48 Letter 20—Darrell Voortman, Irrigator

Central Valley Regional Water Quality Control Board
Long-term Irrigated Lands Regulatory Program
Draft Programmatic Environmental Impact Report Public Comment Form

Comment Letter IL20

Name: Darrell VOORTMAN irrigator
Mailing Address: 26954 JONES Rd
Escalon Ca 95320
Telephone No. (optional): 209 838 7064
Email (optional): NONE

Comments/Issues: We all want clean water, I am disappointed when Stockton, Modesto, or Sacramento let raw sewage into rivers, that is the worst pollution! We test our deep well, our domestic well, and also the snow melt water that comes from irrigation dist, the worst we've had to do is clorinate our for bacteria, we sit blessed when I hear of findings in rivers, those that border creeks & rivers have got to be more carefull. Don't spray bright before rain storm or immediately after, we do our best to live by that I feel it is one of the contributers, I've been able to not have my water leave my property. 20-1

If it's going to cost $ more, than I'll throw up ridge & the owners of the roads & their ditches can keep their water also, right now road water comes on our property.

Be cost cautious in this time of expenses going up & what we get for crop is not going up as fast. Keep studies & testing simple, Cumberson acties will only discourage those who should be more helpfull. 20-2

Please use additional sheets if necessary.

SUBMIT WRITTEN COMMENTS BY SEPTEMBER 27TH TO:

Mail: ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com

Website: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/

3.4.48.1 Responses to Letter 20

20-1

Wastewater from the cities of Stockton, Modesto, and Sacramento is strictly regulated and the wastewater is treated. The Central Valley Water Board appreciates your efforts to prevent waste discharges from leaving your land.

20-2

See Master Response 17. The suggestions made in this comment will be considered in the development of the Long-term ILRP.

3.4.49 Letter 2—Kathryn Wilkins, Organic Farmer

Comment Letter IL2

From: Kathy Wilkins [kagrzd@yahoo.com]
Sent: Friday, 10 September 2010 10:20
To: ILRP Comments
Subject: written comments - workshop 9/9/2010

Thank you for taking to share your options for how to manage/mitigate the new ILRP.

Obviously none of them are a favorite, but as our state becomes more and more regulated in an effort to drive out farming, we must take the opportunity to pick our poison until we are able to move to another state or can afford to give up our livelyhood for something else.

As I have seen what your general order has done to the dairy industry, you must make every effort to avoid repeating this. Our dairy men and women which provide a huge part of our agricultural economy, have been in the worst economic downturn in the industry for over 2 years now. In addition to this stress, which many have not survived, the remainder have had to pay for the implementation of these regulations. 2-1

Please do not let a few bad apples spoil the whole bunch. I can not tell you how many times I have heard, " these regulations have taken all the fun out of dairying." What you do not understand is that farming is a way of life. If you have never done it, you cannot begin to understand. If you repeat the dairy program you will succeed in killing the entire spirit of the farming community at large in California. The remaining dairies are not in business any more because they enjoy it, they stay because they love it and for the majority, it is all they know. Especially the older ones who immigrated over from Portugal and can barely speak english, but they contribute mightly to our economic stability of the California. They are not sucking the life out of it, as California has allowed others to do.

Your dairy program is extremely costly and invasive. Grant it there are a few out there that need the monitoring, but your program doesn't hold only the bad ones accountable, everyone is having to pay to the same extent for others bad choices and abuse of the land.

The "poison" that would be swallowed the easiest would be to begin with alternative 2 and identify the problamatic areas and as those are indentified regionally, leave the farmers alone that are practicing sustainably. Then move these problem farmers into a higher level priority for that region and work through the tiered program regionally, as practices improve. These problem farms could be regulated under alternative 3 to begin with, then if there is no progress use alternative 4 and 5 to motivate the needed changes. While this would require continual survey of annual farming practices (as in the dairy program) it would alleviate unneccessary financial hardship on farms that are farming in a conservative and sustainable manor for the protection of their future and the land. 2-2

Thank you for your time.

Sincerely,
Kathryn Wilkins, Organic Farmer

3

3.4.49.1 Responses to Letter 2

2-1

The comment will be considered in development of the Long-term ILRP.

2-2

The suggested phased approach is similar to the tiered approach and focus on greater threats to water quality proposed in Alternative 6 and will be considered in development of the Long-term ILRP.

3.4.50 Letter 103—John C. Zentner

Comment Letter IL103

John C. Zentner
3040 Omo Ranch Rd. · Somerset, CA 95684 · (530) 391-5564

September 27, 2010

ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Subject: Comments on the Draft Program Environmental Impact Report for a Waste Discharge Program for Irrigated Lands within the Central Valley Region

Reference: El Dorado County Agricultural Water Quality Management Corporation letter dated September 24, 2010, same Subject

Dear Ms. Smith,

I am 64 years old and live in the southern portion of El Dorado County on a 13-acre parcel. In 2003 I began converting a 5-acre, 60-year old, dry-farmed walnut orchard to a 5-acre wine grape vineyard in the hopes of supplementing my retirement income by producing high quality wine grapes. I have been a member of the Sacramento Valley Water Quality Coalition since its inception. After reviewing the LTILRP Draft Program EIR, including the Economic Analysis and Staff Recommended Alternative, I am in doubt as to the future of my agriculture endeavors due to the obvious burdensome administrative and monitoring costs associated with the ground water portion of the new program, especially as those costs impact small farm operations. For the past 3 years my costs to be a member of the coalition have been $20.00/acre in 2008, $23.00/acre in 2009 and $20.00/acre in 2010. I am seriously afraid that if any one of the alternatives of the LTILRP is implemented in the same manner as the existing program that my costs will at least double making it not economically worthwhile to continue farming. 103-1

There are no public water purveyors in our area. Our drinking and agricultural irrigation water comes from a single, 475-foot deep well that is in the middle of our vineyard. The quantity as well as the quality of our water is very precious. We use a drip irrigation system in the vineyard and practice deficit irrigation (at times not by choice but by the amount of available water in the well). There is no possible chance of irrigation water leaving the property. We participate in an Irrigation Management System that is partially subsidized by our County Water Agency. The use of neutron probes provides the weekly status of the water content of the first five feet of soil. We apply water only when the profile shows it is necessary to maintain vine health. When 103-2

we do apply water, the probes show that infiltration is generally only to the 4-foot level. There are no aquifers in our area. We have natural vegetative buffers from 30-150 feet wide around the vineyard that prevent sediment runoff during storm events. In short our operation does not discharge waste to either surface or ground waters of the state. 103-2 cont'd

It is my understanding that since 2003 over $400,000 has been spent by the El Dorado sub-coalition to prove that we have some of the finest, high-quality surface water in the state. There have been exceedances but in every case we have proven that irrigated agriculture was not the cause. With all of the money spent, not one penny of it went to improving or even maintaining the quality of surface water. 103-3

I have provided specific comments to the El Dorado Agricultural Water Quality Management Corporation and they are incorporated herein by reference. In your responses to our comments, please keep in mind the average size of our operations and the disproportionate burdens that these programs are putting on small, family owned, farms. 103-4

Sincerely,

John C. Zentner

From: John Zentner [zentnervineyard@gmail.com]
Sent: Monday, September 27, 2010 5:19 PM
To: ILRP Comments
Subject: LT ILRP Comments from an El Dorado Grape Grower
Attachments: JCZ LTILRP Comments.pdf

Ms. Smith,

I have tried to send the attached comments to you a number of times this afternoon and seem to have failed. I realize it is after the cut off time; however, please consider my comments.

Thank you,

John Zentner

attachment corrupted - dupe | IL103

1

From: John Zentner [zentnervineyard@gmail.com]
Sent: Monday, September 27, 2010 5:25 PM
To: ILRP Comments
Subject: LTILRP Comments for an El Dorado Grape Grower who is having E-mail issues
Attachments: JCZ LTILRP Comments.pdf

Ms. Smith,

I have tried to forward my comments to you all afternoon and have finally corrected an error which kept them from transmitting. I realize it is after the cutoff time; however, please consider these comments as I have tried in good faith to get them to you.

Thank you,
John Zentner

dup of ILRP

1

John C. Zentner
3040 Omo Ranch Rd. · Somerset, CA 95684 · (530) 391-5564

September 27, 2010

ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Subject: Comments on the Draft Program Environmental Impact Report for a Waste Discharge Program for Irrigated Lands within the Central Valley Region

Reference: El Dorado County Agricultural Water Quality Management Corporation letter dated September 24, 2010, same Subject

Dear Ms. Smith,

I am 64 years old and live in the southern portion of El Dorado County on a 13-acre parcel. In 2003 I began converting a 5-acre, 60-year old, dry-farmed walnut orchard to a 5-acre wine grape vineyard in the hopes of supplementing my retirement income by producing high quality wine grapes. I have been a member of the Sacramento Valley Water Quality Coalition since its inception. After reviewing the LTILRP Draft Program EIR, including the Economic Analysis and Staff Recommended Alternative, I am in doubt as to the future of my agriculture endeavors due to the obvious burdensome administrative and monitoring costs associated with the ground water portion of the new program, especially as those costs impact small farm operations. For the past 3 years my costs to be a member of the coalition have been $20.00/acre in 2008, $23.00/acre in 2009 and $20.00/acre in 2010. I am seriously afraid that if any one of the alternatives of the LTILRP is implemented in the same manner as the existing program that my costs will at least double making it not economically worthwhile to continue farming.

There are no public water purveyors in our area. Our drinking and agricultural irrigation water comes from a single, 475-foot deep well that is in the middle of our vineyard. The quantity as well as the quality of our water is very precious. We use a drip irrigation system in the vineyard and practice deficit irrigation (at times not by choice but by the amount of available water in the well). There is no possible chance of irrigation water leaving the property. We participate in an Irrigation Management System that is partially subsidized by our County Water Agency. The use of neutron probes provides the weekly status of the water content of the first five feet of soil. We apply water only when the profile shows it is necessary to maintain vine health. When we do apply water, the probes show that infiltration is generally only to the 4-foot level. There are no aquifers in our area. We have natural vegetative buffers from 30-150 feet wide around the vineyard that prevent sediment runoff during storm events.

September 27, 2010

In short our operation does not discharge waste to either surface or ground waters of the state.

It is my understanding that since 2003 over $400,000 has been spent by the El Dorado sub-coalition to prove that we have some of the finest, high-quality surface water in the state. There have been exceedances but in every case we have proven that irrigated agriculture was not the cause. With all of the money spent, not one penny of it went to improving or even maintaining the quality of surface water.

I have provided specific comments to the El Dorado Agricultural Water Quality Management Corporation and they are incorporated herein by reference. In your responses to our comments, please keep in mind the average size of our operations and the disproportionate burdens that these programs are putting on small, family owned, farms.

Sincerely,

John C. Zentner

3.4.50.1 Responses to Letter 103

103-1

See Master Response 17.

103-2

See Comment Letter 1, Response 5 and Master Response 12.

103-3

Monitoring is a critical component to any water quality program. Without monitoring, it would be difficult to determine whether the water was high quality and whether exceedances were associated with irrigated agriculture. The data collected through monitoring has been and will continue to inform the development and implementation of the ILRP.

103-4

See Master Response 17.

Chapter 4
Revisions to the Draft Program Environmental Impact Report

4.1 Introduction

This chapter contains a record of changes made to the ILRP PEIR in response to comments received on the Draft document, identified in Chapter 3, Comments and Responses. None of the text changes result in new or significant environmental impacts than those previously disclosed in the Draft PEIR.

Revisions are presented in the order they appear in the Draft PEIR, organized by chapter, section, and appendix. Deletions are shown in ~~strikeout~~ and insertions are shown in <u>double-underline</u>. Three stars (***) indicates a break or continuation in a section where unchanged text was excluded from this errata.

4.2 Changes to the Draft PEIR

4.2.1 Chapter 1, Summary

Page 1-13, Table 1-1, Impact HYD-1

Table 1-1. Summary of Impacts and Mitigation Measures for the Irrigated Lands Regulatory Program

Impact	Applicable Alternative	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
HYDROLOGY AND WATER QUALITY				
SWQ = surface water quality GWQ = groundwater quality				
HYD-1. Change in Quality of State Waters from Agricultural Discharge or Alteration of Hydrologic Patterns of Runoff or Infiltration	1	SWQ: Beneficial GWQ: ~~Potentially significant~~ <u>Beneficial</u>	SWQ: No mitigation is required. GWQ: <u>No mitigation is required.</u> Mitigation Measure HYD-MM-1: Develop and Implement a Groundwater Quality Management Plan	SWQ: – GWQ: ~~Less than significant~~ <u>–</u>

4.2.2 Chapter 3, Program Description

Page 3-4, Alternative 1 – Full Implementation of Current Program (No Project Alternative)

3.2.1 Introduction

Under Alternative 1, the Central Valley Water Board would renew the current program and continue to implement it into the future. This would be considered the "No Project" Alternative per CEQA guidance at Title 14 CCR Section 15126.6(e)(3)(A): "When the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the 'No Project' Alternative will be the continuation of the existing plan, policy, or operation into the future." Given the reasonably foreseeable ~~ministerial~~ nature of the extension or renewal of the ongoing waiver, which would allow continuation of the existing program, Alternative 1 is best characterized as the "No Project" Alternative. This approach best serves the purpose of allowing the Central Valley Water Board to compare the impacts of revising the ILRP with those of continuing the existing program (Title 14 CCR Section 15126.6[e][1]).

4.2.3 Section 5.5, Air Quality

Page 5.5-25, Assessment Methods, Table 5.5-8

Table 5.5-8. Summary of Management Practices and Potential Construction Emissions

Management Practice	Applicable Alternatives	Potential Construction Emissions
Nutrient management	Alternatives 1 through 4 where nutrient or dissolved oxygen problems are identified Alternative 5, all growers	N/A—no construction required under this management practice.[a]
Improved water management	Alternatives 1 through 5 where COCs are identified	N/A—no construction required under this management practice.[b]
Tailwater recovery system	Alternatives 1 through 5 where COCs are identified	Generation of exhaust emissions from construction equipment (e.g., backhoe, small bulldozer) required to dig and excavate the catchment pond and install pumps. Minor generation of fugitive dust from excavation activities.
Pressurized irrigation	Alternatives 1 through 5 where COCs are identified	If construction equipment is required to set up the irrigation system, ~~minor amounts of~~ exhaust emissions would be generated by construction activities including, but not limited to, erection of pumping facilities, trenching, and pipe installation.
Sediment trap, hedgerow, or buffer	Alternatives 1 through 5 where COCs are identified	Generation of exhaust emissions from construction equipment required to create the trap or physical barrier.
Cover cropping or conservation tillage	Alternatives 1 through 5 where COCs are identified	N/A—no construction required under this management practice.[c]

Management Practice	Applicable Alternatives	Potential Construction Emissions
Wellhead protection	Alternatives 2 through 5	Generation of exhaust emissions from construction equipment required to create the berm. Minor generation of fugitive dust from excavation activities.

Notes:
COCs = constituents of concern.
N/A = not applicable.
[a] This practice may result in reduced fertilizer and pesticide application, thereby reducing toxic air contaminants.
[b] This practice may reduce the amount of water currently being pumped, thereby reducing emissions associated with diesel exhaust.
[c] It is likely that this practice will reduce fugitive dust (PM10 and PM2.5) emissions by reducing the amount of soil exposed to the elements.

Page 5.5-26, Assessment Methods, Operational Emissions

Long-term air quality impacts are associated with changes in the permanent, continued daily use of the program area. Operational emissions from the program alternatives would primarily result from vehicle trips for site inspections and monitoring. Implementation of tailwater recovery systems and increased use of groundwater wells in support of sprinkler and drip irrigation systems would require the use of pumps, likely diesel powered, that also would be considered a source of operational emissions. Likewise, if individual groundwater wells or pressurized irrigation systems require diesel-powered pumps; these facilities would contribute to operational impacts. These sources are expected to be transitory ~~and short term~~ (e.g., seasonal irrigation-related use, semi-annual well sampling, back-up pump motors, and annual inspections)~~, but the extent of these activities is unknown at this time.~~ In the instance of pressurized irrigation, the creation of operational emissions may be offset by reduced need for mechanically powered diversions of surface and groundwater. The extent of these activities, and resulting reductions in offsetting activities, is unknown at this time.

Page 5.5-28, Alternative 1, Impact AQ-2

Impact AQ-2. Generation of Operational Emissions in Excess of Local Air District Thresholds

Alternative 1 does not involve any groundwater monitoring or grower site inspections. Operational emissions therefore would result from vehicle trips made by the coalition groups to perform surface water quality monitoring and from diesel-powered wells installed in tailwater recovery systems.

Surface water quality monitoring is already occurring under existing conditions. Alternative 1 therefore is not expected to result in an appreciable difference in operational emissions related to vehicle trips for monitoring. However, installation of diesel-powered pumps as part of tailwater recovery and/or pressurized irrigation systems would represent an additional source of emissions. With limited information on the number and hours of operation associated with these pumps, a quantitative analysis of emissions is not possible.

Any new emissions generated under Alternative 1 are not expected to be substantial or to exceed applicable air district thresholds. In addition, they may be moderated by emissions benefits related

to management practices that reduce irrigation and cover crops (see Table 5.5-8). However, the difference in emissions relative to existing conditions is not known at this time and therefore cannot be compared to the significance criteria. This is considered a potentially significant impact. Implementation of **Mitigation Measure AQ-MM-2** would reduce this impact to a less-than-significant level.

Page 5.5-29, Alternative 2, Impact AQ-2

Impact AQ-2. Generation of Operational Emissions in Excess of Local Air District Thresholds

Under Alternative 2, operational emissions would result from vehicle trips made by the third-party groups to perform surface water and groundwater monitoring, and from new diesel-powered pumps installed as part of tailwater recovery and/or pressurized irrigation systems. Existing wells that are already in operation would be used to conduct the regional groundwater monitoring. Consequently, it is not anticipated that new stationary sources would be operated as part of the groundwater monitoring plans.

This alternative allows for a reduction in surface water quality monitoring under low-threat circumstances or when watershed or area management objectives plans have been adopted. Consequently, the number of trips, and thus operational emissions, associated with surface water quality monitoring may be reduced relative to existing regulations. However, new vehicle trips for regional groundwater monitoring and operation of new diesel-powered pumps for tailwater recovery systems may outweigh any emissions benefits achieved by this reduction. With limited information on the number and distances of vehicle trips associated with monitoring, and the number and hours of operation of the pumps, a quantitative analysis of emissions is not possible.

Any new emissions generated under Alternative 2 are not expected to be substantial or to exceed applicable air district thresholds. In addition, they may be moderated by emissions benefits related to management practices that reduce irrigation and cover crops (see Table 5.5-8). However, the difference in emissions relative to existing conditions is not known at this time and therefore cannot be compared to the significance criteria. This is considered a potentially significant impact. Implementation of **Mitigation Measure AQ-MM-2** would reduce this impact to a less-than-significant level.

Page 5.5-30, Alternative 3, Impact AQ-2

Impact AQ-2. Generation of Operational Emissions in Excess of Local Air District Thresholds

Operational emissions would result from vehicle trips made by the Central Valley Water Board or another implementation agency to conduct annual site inspections on 5 percent of farms and from new diesel-powered pumps installed as part of tailwater recovery and/or pressurized irrigation systems. This alternative does not require growers or the Central Valley Water Board to perform surface water or groundwater monitoring. Rather, individual growers would conduct visual inspections of their own farms. Consequently, minimal emissions would be associated with vehicle travel. Because surface water quality monitoring, which generates emissions from vehicle trips, is required under existing conditions, implementation of Alternative 3 would reduce emissions from this activity relative to existing regulations.

Operational emissions from vehicle travel for grower site inspections are expected to be minimal. The number and distances of trips that would be completed as part of Alternative 3 are not currently

known. Likewise, the number of new well pumps to be installed as part of tailwater recovery systems is unavailable. Consequently, it is not possible to quantify emissions or determine whether new emissions from site inspections and well pumps would offset the reduction benefits achieved by eliminating vehicle trips for water quality monitoring.

Operational emissions would result in a significant effect if the incremental difference, or increase, relative to existing conditions exceeds any of the applicable air district thresholds shown in Table 5.5-2. Any increase in emissions generated by Alternative 3 is expected to be miniscule and may be moderated by emissions benefits related to management practices that reduce irrigation and cover crops (see Table 5.5-8). However, the magnitude of potential emissions is not known at this time. This impact is considered potentially significant. Implementation of **Mitigation Measure AQ-MM-2** would reduce this impact to a less-than-significant level.

Page 5.5-31, Alternative 4, Impact AQ-2

Impact AQ-2. Generation of Operational Emissions in Excess of Local Air District Thresholds

Under Alternative 4, operational emissions would result from vehicle trips made by lead entities to perform water quality monitoring, vehicle trips made by the Central Valley Water Board to perform grower site inspections, and new diesel-powered pumps installed as part of tailwater recovery and/or pressurized irrigation systems. Alternative 4 allows for individual growers to perform their own monitoring, depending on the threat level of their operation to water quality. Vehicle trips associated with this type of monitoring include those required to transport samples to the laboratory for analysis.

Emissions benefits may be achieved through practices that reduce irrigation and cover crops (see Table 5.5-8). However, in the absence of a quantitative analysis, data are insufficient to determine how the net operational emissions under Alternative 4 would change relative to existing regulations. Although any increases in emissions are expected to be minuscule and to not exceed air district thresholds, the magnitude of emissions is presently unknown. This is considered a potentially significant impact. Implementation of **Mitigation Measure AQ-MM-2** would reduce this impact to a less-than-significant level.

4.2.4 Section 5.6, Climate Change

Page 5.6-2, Regulatory Framework, State

A variety of legislation has been enacted in California that relates to climate change, much of which sets aggressive goals for GHG reductions within the state. ~~However, none of this legislation provides definitive direction regarding the treatment of climate change in environmental review documents pursuant to CEQA.~~

Page 5.6-5, Regulatory Framework, Local

Bay Area Air Quality Management District

The BAAQMD ~~released~~ adopted its CEQA Air Quality Guidelines in ~~December 2009~~June 2010 (~~EDAW 2009~~Bay Area Air Quality Management District 2010). The guidance ~~proposes~~ establishes significance thresholds for operational GHG emissions. The BAAQMD currently does not recommend a construction GHG emission threshold because of insufficient information to determine an

appropriate significance level. District staff recommends considering construction emissions on a case-by-case basis and encourages the implementation of BMPs.

The ~~proposed~~ threshold of significance for operational-related GHG emissions from land use projects is 1,100 metric tons of CO_2e per year. Projects exceeding this threshold would not be considered to result in a significant impact related to GHG emissions if their yearly GHG efficiency is less than 4.6 metric tons of CO_2e per service population (project jobs + projected residents) for mixed-use projects or if the project complies with an approved Climate Action Plan. The proposed threshold for stationary sources is 10,000 metric tons of CO_2e per year. If annual GHG emissions from project operations are below the above thresholds, the proposed project would result in a less-than-significant impact on global climate change (Bay Area Air Quality Management District 2010~~EDAW 2009~~).

Pages 5.6-11 and 5.6-12, Impacts, Assessment Methods

GHG emissions (CO_2, CH_4, and N_2O) from construction activities are primarily the result of fuel use by construction equipment, as well as worker and vendor trips to the project site. Management practices used to prevent impacts on water quality that require heavy-duty equipment would generate GHG emissions through equipment exhaust (see Table 5.5-8). As described in Section 5.5, construction activity, and thus the number and type of heavy-duty equipment, can vary depending on the management practices implemented under the proposed program. In general, however, construction required by the various management practices would be minor. Consequently, GHG emissions resulting from heavy-duty vehicle exhaust most likely would be miniscule.

Operational GHG emissions from the program alternatives would primarily result from vehicle trips for site inspections and monitoring. Diesel-powered well pumps for groundwater wells and tailwater recovery systems also may generate a minor amount of GHGs as exhaust. Likewise, pressurized irrigation systems may require diesel-powered or electric pumps, which will either contribute to direct exhaust emissions or indirect electricity generation emissions, respectively. As discussed in Section 5.5, the extent of these activities is unknown at this time. However, GHG emissions from these sources are expected to be transitory and short term (e.g., semi-annual well sampling, back-up pump motors, and annual inspections).

Certain management practices also may result in GHG emissions benefits relative to existing conditions. For example, improved irrigation management may reduce the amount of time that pressurized pump generators are used. This practice also will help create water-efficient irrigation systems and devices, thereby reducing the amount of water required. Enhanced nutrient application may minimize the number of tractors required to plow a field. This practice also may reduce fertilizer use, which is a source of N_20 emissions. However, as discussed above, the extent and intensity of these activities are unknown.

The amount of GHG emissions from construction equipment and vehicle trips is heavily dependent on the type of management practice and the frequency of monitoring and site inspections, respectively. The number of diesel-powered well pumps also impact the quantity of GHGs emitted during program operation. Likewise, GHG reductions from improvements in irrigation and nutrient management are dependent on the number of farmers implementing these strategies, as well as the condition of their existing facilities. Because information on these sources is currently unavailable, a quantified analysis of potential GHG emissions is not possible (please refer to Section 5.5 for an expanded discussion on the availability of existing data). Consequently, a qualitative analysis of GHG emissions was performed. The qualitative analysis took into account the following:

- Stipulations for the installation of monitoring wells,
- Combustion emissions from heavy-duty equipment required by potential management practices,
- Provisions for groundwater monitoring plans and site inspections, and
- Stipulations for nutrient monitoring plans.

It is important to note that CO_2 emissions from land use changes may be affected by implementation of the ILRP. Agricultural activities represent both an emissions sink (i.e., they reduce emissions) and source (i.e., they produce emissions). Carbon sequestration is the process by which atmospheric CO_2 is absorbed by flora and stored as carbon in biomass. Sequestration rates vary by crop, soil type, regional climate, and management practices, but certain types of cropland (primarily orchards, vines, and rangelands) and grassland are known to actively sequester atmospheric CO_2. The benefits of sequestration can be partially or fully offset when terrestrial carbon is released back into the atmosphere through decay or disturbances. For example, if agriculture practices that typically foster sequestration, such as tillage, are interrupted or altered, a portion of the accumulated carbon may be quickly released. The relationship between carbon sequestration and agricultural practices is therefore complex and at the forefront of several scientific studies. However, there are some agricultural management strategies that are known to sequester carbon and/or reduce GHG emissions. These are listed below in Table 5.6-5.

Table 5.6-5. Agricultural Practices that Sequester Carbon and/or Reduce GHG Emissions

Agricultural Practice	Effect on GHGs
Conservation riparian buffers	Increases carbon storage through sequestration
Conservation tillage on croplands	Increases carbon storage through enhanced soil sequestration, may reduce energy-related CO_2 emissions from farm equipment, and could affect N_2O positively or negatively.
Grazing land management	Increases carbon storage through enhanced soil sequestration and may affect emissions of CH_4 and N_2O.
Biofuel substitution	Substitutes carbon for fossil fuel and energy-intensive products. Burning and growing of biomass can also affect soil N_2O emissions.

Source: U.S. Environmental Protection Agency 2010.

The analysis of impacts to agricultural resources concludes that the ILRP will reduce agricultural resources, primarily through impacts to irrigated pasture acreage (see Impact AG-1). Thus, the ILRP will likely reduce existing cropland currently sequestering CO_2, thereby removing a potential GHG sink, but will also eliminate an existing source of emissions from biomass decomposition. Carbon sequestration rates may also be affected by the program's potential to increase use of the management practices listed in Table 5.6-6. Estimating the ILRP's effects on carbon sequestration and GHG emissions, and to the extent that one source outweighs the other, is thus far more uncertain and speculative than for other classes of emissions discussed above.[1] Consequently, emissions resulting from land use changes were not included in the analysis.

New Footnote 1: Analysis would require a detailed inventory of crop type and size, crop acreage, sequestration rate, soil moisture, and precipitation rates throughout the program area.

Page 5.6-12, Impacts, Significance Determinations

Based on 2010 State CEQA Guidelines Appendix G, an impact pertaining to climate change is considered significant if it would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan adopted for the purpose of reducing GHGs. In accordance with the CEQA Guidelines and scientific consensus regarding the cumulative nature of GHGs[2], this analysis includes a cumulative, rather than project-level, evaluation of climate change impacts.

> New Footnote 2: Climate change is a global problem, and GHGs are global pollutants, unlike criteria air pollutants (such as ozone precursors), which are primarily pollutants of regional and local concern. Given their long atmospheric lifetimes (see Table 5.6-1), GHGs emitted by countless sources worldwide accumulate in the atmosphere. No single emitter of GHGs is large enough to trigger global climate change on its own. Rather, climate change is the result of the individual contributions of countless sources past, present, and future. Therefore, GHG impacts are inherently cumulative.

~~Certain criteria must be examined to determine whether a project will result in a significant effect on the environment. As of the writing of this report, the agencies with jurisdiction over air quality regulation and GHG emissions, such as EPA, ARB, and the various local air districts, have not formally adopted applicable significance thresholds, standards, or analysis protocols for the assessment of GHG emissions (please refer to Section 5.6.2). Thus, a methodology to establish an appropriate baseline or develop a program-level inventory for the proposed program, which would allow for an appropriate analysis of the program's impacts on climate change or the impact of climate change on the proposed program, has not yet been established. Recent policy documents and proposed thresholds developed at federal, state, and local levels recommend that GHGs be addressed quantitatively based on their cumulative contribution to climate change impacts, rather than on a project-specific basis.~~

4.2.5 Section 5.7, Vegetation and Wildlife

Page 5.7-50, Mitigation and Improvement Measures

Mitigation Measure BIO-MM-1: Avoid and Minimize Impacts on Sensitive Biological Resources

Implementation of the following avoidance and minimization measures would ensure that the construction activities related to implementation of management practices and installation of monitoring wells on irrigated lands would minimize effects on sensitive vegetation communities (such as riparian habitat and wetlands adjacent to the construction area) and special-status plants and wildlife species as defined and listed in Section 5.7.3. In each instance where particular management practices could result in impacts on the biological resources listed above, growers should use the least impactful effective management practice to avoid such impacts. Where the ILRP water quality improvement goals cannot be achieved without incurring potential impacts, individual farmers, coalitions, or third-party representatives should implement the following measures to reduce potential impacts to less-than-significant levels.

- Where detention basins are to be abandoned, retain the basin in its existing condition or ensure that sensitive biological resources are not present before modification.
- Where construction in areas that may contain sensitive biological resources cannot be avoided through the use of alternative management practices, conduct an assessment of habitat conditions and the potential for presence of sensitive vegetation communities or special-status

plant and animal species prior to construction. this may include the hiring of a qualified biologist to identify riparian and other sensitive vegetation communities and/or habitat for special status plant and animal species;

- Avoid and minimize disturbance of riparian and other sensitive vegetation communities.
- Avoid and minimize disturbance to areas containing special-status plant or animal species.
- Where adverse effects on sensitive biological resources cannot be avoided, undertake additional CEQA review where appropriate and develop a restoration or compensation plan to mitigate the loss of the resources.

4.2.6 Section 5.8, Fish

Page 5.8-51, Impact FISH-3

In some cases, permanent loss of fish habitat may occur as a result of construction required for implementation of management practices. Some of the impact may be due to loss of structural habitat (e.g., vegetation) whereas loss of dynamic habitat (e.g., wetted habitat) could be an issue where tailwater augments natural flows or makes seasonal streams into perennial systems. This may be of concern in areas where tailwater return flows are composed mostly of pumped groundwater. Because the extent of the loss is not known, the impact is considered potentially significant. Implementation of **Mitigation Measure FISH-MM-~~2~~1** would reduce this impact to a less-than-significant level.

Page 5.8-51, Impact FISH-4

Polyacrylamides (PAMs) are applied to reduce erosion and sediment runoff and thereby improve water quality (Sojka et al. 2000). Anionic PAMs are safe to aquatic life when used at prescribed rates (Sojka et al. 2000). Because neutral and cationic PAMs may be toxic to fish and their prey (Sojka et al. 2000; Mason et al. 2005), application of anionic PAMs is not recommended in areas with sensitive fish species (Mason et al. 2005). This impact is considered potentially significant. Implementation of **Mitigation Measure FISH-MM-2** would reduce this impact to a less-than-significant level.

4.2.7 Section 5.9, Hydrology and Water Quality

Pages 5.9-14 through 5.9-16, Alternative 1, Impact HYD-1

Nutrient management would improve both surface water quality and groundwater quality by improving the use of chemicals and using improved application techniques, and by limiting the use of nutrients as fertilizer that could potentially seep to groundwater and add nitrate to the groundwater table. Overall, nutrient management would reduce both soluble and insoluble constituents moving to water bodies. Improved water management also would benefit water quality by improving the application of water, and the possibility of using water additives to coagulate particles would reduce the potential sediment loads to water bodies. Pressurized irrigation is somewhat homogenous with the water management practice and would improve groundwater quality and surface water quality. Water would be applied at a rate that would allow for maximum plant consumption and would minimize the amount of groundwater infiltration, which would improve groundwater quality over time. While reduced infiltration would result in possible reduced groundwater recharge in areas where this practice is employed that are susceptible to such

recharge, this decline is expected to be substantially offset by reduced irrigation water volume and a commensurate reduction in groundwater withdrawal.

***

Overall, implementation of Alternative 1 would improve surface water quality over time in the subwatersheds with water quality impairments due to irrigated agriculture. Some of the management practices would slightly alter drainage patterns and runoff infiltration, but the amount of alteration is not considered a significant hydrologic impact compared to existing conditions. Some of the management practices could impact groundwater quality through infiltration during settling of particles. ~~Because~~ Although directly addressing groundwater quality is not part of Alternative 1, groundwater quality would not be worsened beyond baseline conditions by implementation of Alternative 1. Rather, increased surface water management practices are expected to indirectly improve groundwater quality over time, resulting in a probable beneficial impact to groundwater quality.~~continue to be impaired from agriculture practices. Implementation of **Mitigation Measure HYD-MM-1** would reduce this impact to a less-than-significant level.~~ No mitigation is required. However, implementation of **Mitigation Measure HYD-MM-1** would act to further improve groundwater quality.

Page 5.9-19, Mitigation and Improvement Measures

Each of the analyzed alternatives would result in beneficial impacts or neutral impacts on hydrology and water quality , therefore, no mitigation is required. However, implementation of the following measure would increase the beneficial impact of Alternative 1 on groundwater:

Mitigation Measure HYD-MM-1: Develop and Implement a Groundwater Quality Management Plan

Growers will design GQMPs to minimize waste discharge to groundwater from irrigated agricultural lands. Development of GQMPs involves collection and evaluation of available groundwater data, identification of GMAs of concern, identification of constituents of concern within the GMAs, prioritization of the GMAs and constituents of concern, identification of agricultural practices that may be causing or contributing to the problem, and identification of agricultural management practices that should be implemented by local growers to address the constituents of concern. The GQMPs will be reviewed by Central Valley Water Board staff, and approved only after staff judge that the implementation measures are adequate to meet the groundwater quality objectives of the Basin Plan and the State Antidegradation Policy.

4.2.8 Chapter 6, Cumulative and Growth-Inducing Impacts

Page 6-1, Cumulative Impacts

The cumulative impact analysis determines the combined effect of the proposed project and other closely related, reasonably foreseeable, projects. This section describes the methods used to evaluate cumulative effects, lists related projects and describes their relationship to the proposed program, identifies cumulative impacts by resource area, and recommends mitigation for significant cumulative effects. Section 15130 of the State CEQA Guidelines states that the discussion of cumulative impacts need not provide as much detail as the discussion of effects attributable to the program alone. The level of detail should be guided by what is practical and reasonable.

According to the State CEQA Guidelines (Section 15130), an adequate discussion of significant cumulative impacts should contain the following elements:

- An analysis of related future projects or planned development that would affect resources in the project area similar to those affected by the proposed project; or a summary of projections contained in an adopted local, regional or statewide plan [...] that describes or evaluates conditions contributing to the cumulative effect,
- A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available, and
- A reasonable analysis of the cumulative impacts of the relevant projects. An EIR must examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

Page 6-4, Cumulative Impacts by Resource, Fish

Given the ongoing ESA consultation process for pesticides as a result of recent court orders, it is reasonably foreseeable that further reasonable and prudent measures would be required by NMFS and USFWS that would improve water quality within the program area. Revision of water quality control plans and TMDLs also can be expected to improve water quality. These and other measures, in combination with the likely beneficial effects of the various program alternatives, suggest that the cumulative effects of the program alternatives are not cumulatively considerable with implementation of **Mitigation Measures FISH-MM-1**~~,~~ and **FISH-MM-2**~~, and FISH MM-3~~, described in Section 5.8, Fisheries.

Page 6-4, Cumulative Impacts by Resource, Hydrology and Water Quality

Program alternatives ~~2 through 5~~ would not result in adverse cumulative impacts on surface water quality, groundwater quality, or hydrology in the program area. Combining one of the program alternatives with other local state programs, such as the CV-SALTS program and the existing dairy program, could result in a cumulative beneficial water quality improvement over time. ~~Similarly, Alternative 1 would not result in adverse cumulative impacts on surface water quality or hydrology in the program area and could result in a cumulative beneficial water quality improvement for surface waters. However, Alternative 1 does not address issues pertaining to groundwater quality and therefore could contribute to cumulatively considerable impacts to groundwater quality as a result of discharges from irrigated lands.~~

Page 6-4, Cumulative Impacts by Resource, Agriculture Resources

*[**Staff-initiated Change:** this clarification was made to ensure consistency between the Program-specific impact to Agriculture Resources and the possible cumulative impacts to Agriculture Resources. The level and/or severity of the impact described has not been changed.]*

While conversion of important farmland may not continue at the accelerated rate of the past 10 years due to decreased demand for new housing, it is reasonably foreseeable that it will continue at a rate comparable to that seen since 1984. Given the magnitude of important farmland conversion expected from implementation of the ILRP alternatives, the program could result in considerably cumulative impacts to agriculture resources. ~~However,~~ While implementation of AG-MM-1, described in Section 5.10, Agriculture Resources, could reduce these impacts to a level that is not a cumulatively considerable contribution to this statewide impact, such a reduction cannot be

quantified. As such, AG-MM-1 is inadequate to fully mitigate the contribution of the ILRP alternatives to this impact, and their contribution is potentially cumulatively considerable.

4.2.9 Draft PEIR, Appendix A

Page 31, Malathion and Thiobencarb

Six monitoring sites in four subbasins have shown two or more malathion exceedances; three sites (in two subbasins) are in the Sacramento River Basin, and three sites (in two subbasins) are in the San Joaquin River Basin. For thiobencarb, there are four coalition group monitoring sites (in two subbasins) with two or more exceedances in the San Joaquin River Basin. Thiobencarb results above the performance goals caused by rice applications (excepting wild rice) in the Sacramento River Basin are addressed through the Rice Pesticide Program, rather than through an ILRP management plan. See Figure 14 for malathion and thiobencarb data.

UC Davis monitoring resulted in an additional three sites (in different subbasins from the coalition group exceedances sites) showing two or more malathion exceedances—one in the Sacramento River Basin and two in the San Joaquin River Basin (both in the same subbasin). UC Davis monitoring also resulted in five more sites with more than one thiobencarb exceedance, all in the Sacramento River Basin.

There have been no sites with two or more malathion or thiobencarb exceedances in the Tulare Lake Basin in either the coalition group or UC Davis monitoring programs.

Malathion and thiobencarb exceedances caused by rice applications in the Sacramento River Basin are addressed through the Central Valley Water Board's Rice Pesticide Program, rather than the ILRP (excepting wild rice, which would be addressed through the ILRP).

Page 34, Surface Water Map Legends

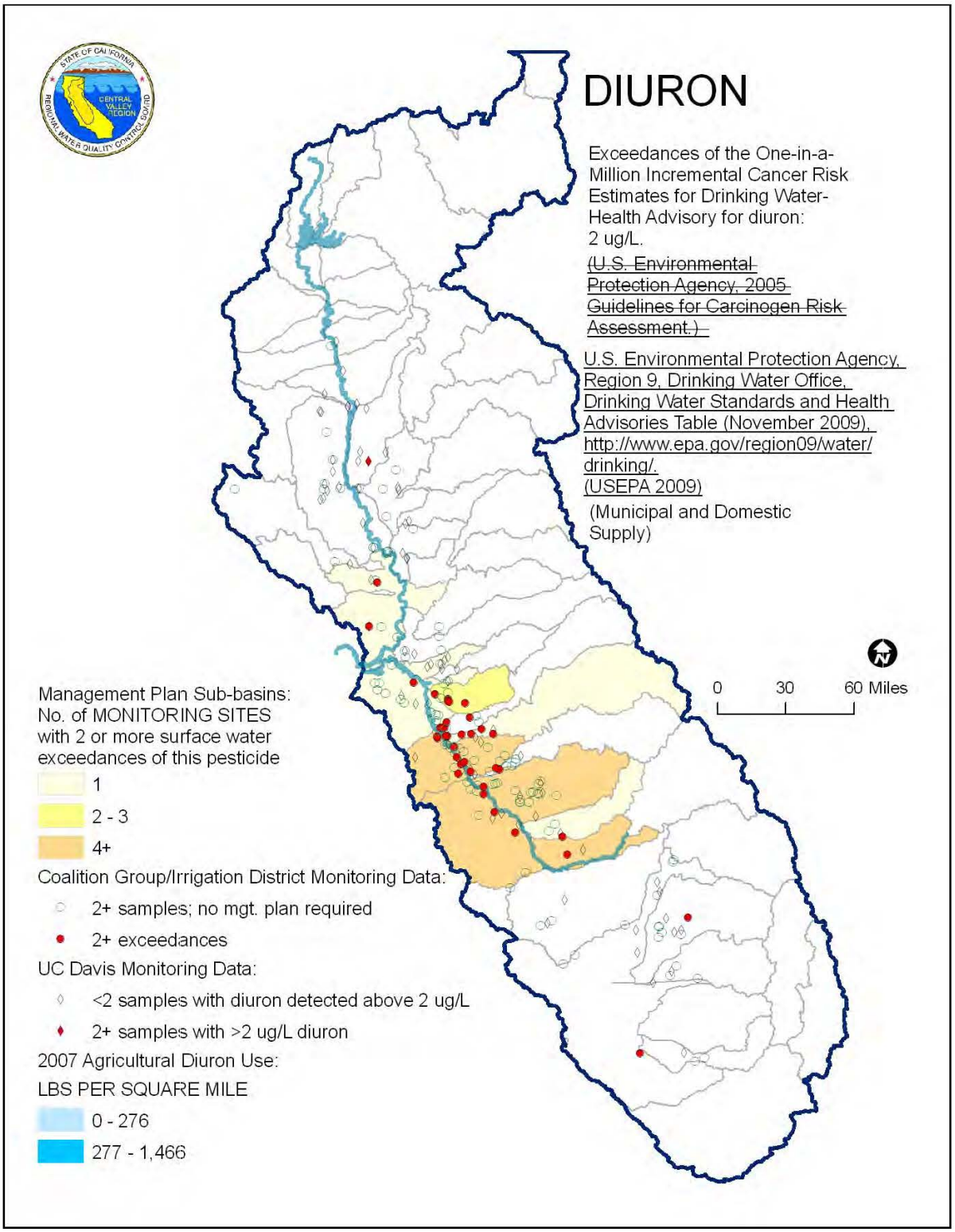
Figures 11 through 20 are side-by-side maps showing the distribution of management plans and other pertinent data throughout the Central Valley. Each figure contains two legend columns (one to the left of each map). Please note that the first map legend (legend to the far left) on each page includes information that applies to both maps, so refer to both legend columns for each map. More information on the water quality objectives and goals cited in this report (e.g., Figures 11–20) can be found in the Central Valley Water Board's July 2008 Staff Report titled: A Compilation of Water Quality Goals. The report is available online at:

<http://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_standards_limits/water_quality_goals/wq_goals_2008.pdf>

Page 36, Figure 12 (Draft PEIR, Appendix A); Page 5.8-41 (main body of Draft PEIR), Figure 5.8-7

[The following graphic replaces the left half (Diuron) of Figure 12 (Draft PEIR, Appendix A) and Figure 5.8-7 (main body of Draft PEIR).]

Figure 12. Diuron and Dimethoate Use, Monitoring Data, and Management Plans



Page 46, Nutrients

Nitrate impacts on groundwater beneath agricultural areas are most effectively determined by means of shallow (installed in first encountered groundwater) monitoring wells constructed with short screen lengths (Burow et al. 1998, 2007; Fuhrer et al. 1999; ~~California GAMA Program 2008~~Gilliom and Hamilton 2006). While nitrate impacts may be detected most effectively in shallow wells, intensive pumping and recharge through irrigation can result in a vertically downward groundwater flux. This downward migration of nitrate may result in increasing concentrations in the deeper domestic and public-supply wells over time (Burow et al. 2007).

Pages 56 and 57, Central Valley Regional Water Quality Control Plans

Section 13240 of the CWC requires that the Regional Water Board formulate and adopt a water quality control plan, or Basin Plan, for all areas in the region. The Central Valley Water Board has two basin plans: one for the Tulare Lake Basin and one for the Sacramento River and San Joaquin River Basins.

The Basin Plans establish beneficial uses to be protected in Central Valley ground and surface waters (e.g., municipal supply, agricultural supply, warm and cold freshwater habitat, contact recreation); water quality objectives to protect the beneficial uses; and implementation plans to achieve the water quality objectives. Basin Plan adopted water quality objectives ensure the reasonable protection of beneficial uses in Central Valley ground and surface waters. For example, Basin Plans contain fecal coliform water quality objectives for any waters designated for contact recreation. The fecal coliform water quality objectives are designed to ensure the health and safety of people using waters for contact recreation.

All Water Board permits, WDRs, and waivers of WDRs must implement provisions of the Basin Plan. The long-term ILRP therefore must (1) require that Central Valley ground and surface waters accepting waste from irrigated agricultural operations meet applicable Basin Plan water quality objectives, and (2) be consistent with Basin Plan policies and implementation provisions, including time schedules, where applicable.

~~Basin Planning efforts look at all pollutant sources and identify what needs to be done to achieve water quality protection. For example, Central Valley Salinity Alternatives for Long-Term Sustainability (or CV-SALTS) has the goal of developing sustainable solutions to the increasing salt and nitrate concentrations in Central Valley surface and groundwater. The ILRP is relying on CV-SALTS to identify the actions that need to be taken by irrigated agriculture and others to address these constituents.~~

Recent Basin Plan amendments have addressed discharges of pesticides, oxygen-demanding substances, and salt from irrigated lands in specific portions of the Central Valley. Future Basin Plan amendments also are expected to include new requirements for waste discharges from irrigated agricultural lands. Examples of programs developing amendments include the methylmercury TMDLs, Central Valley pesticide TMDL, organochlorine pesticide TMDL, and the CV-SALTS program. The methylmercury TMDL has been approved by the Central Valley Water Board, and will be reviewed by the U.S. Environmental Protection Agency (USEPA). If approved by USEPA, the TMDL would establish new methylmercury loading limits for Central Valley surface waters.

As described above, the long-term ILRP is required to implement Basin Plan provisions, including new provisions adopted in a Basin Plan amendment. Therefore, it is important that the long-term ILRP be flexible enough to implement these and other future Basin Plan water quality requirements.

1. Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS)

As described in Section III.C of this report, increasing salinity is likely the largest long-term chronic water quality impairment to surface and groundwater in the Central Valley; also, there are a considerable number of wells in the Central Valley that have high levels of nitrate. Irrigated agricultural operations contribute to the growing problem by importing salts and nitrates -primarily with irrigation water and fertilizers. Salts and nitrates unused by plants may move offsite in tailwater, build-up in the soil profile, and move to groundwater through leaching or other means. Where salt build-up in soils leads to loss of crop productivity, irrigated agricultural operations must force the salts downward by applying large amounts of irrigation water.

Unfortunately, in many areas of the Central Valley, there is no natural mechanism for removal of imported salts leached to groundwater. Therefore, salts applied by agricultural operations that leach to groundwater essentially build-up in the groundwater basin. Over time, this build-up of salts may lead to impairment of beneficial uses. Management practices that operations will be implementing under the ILRP will work to reduce the amount of salts imported by irrigated agricultural operations. Examples of these practices include nutrient and irrigation water management to maximize the efficiency of applied fertilizers and irrigation water. However, in many areas of the Central Valley, this incremental reduction of salt loading, without mechanisms for removal, will only slow the build-up of salts.

CV-SALTS has the goal of developing sustainable solutions to the increasing salt and nitrate concentrations in Central Valley surface and groundwater. While the ILRP will work to reduce irrigated agricultural discharge of these constituents, the ILRP is relying on CV-SALTS to identify the actions that need to be taken by irrigated agriculture and others to provide a long-term solution for discharge of these constituents to State waters within the Central Valley. Initial CV-SALTS implementation requirements for salinity and nitrate are expected to be approved by the Board within the next five years, with future refinement anticipated.

Pages 57 and 59, State Antidegradation Policy

Basin Plan water quality objectives are developed to ensure that ground and surface water beneficial uses are protected. The quality of some State ground and surface waters is higher than established Basin Plan water quality objectives. For example, nutrient levels in good quality waters may be very low, or not detectable, while existing water quality standards for nutrients may be much higher. In such waters, some degradation of water quality may occur without compromising protection of beneficial uses. The policies described in this section guide when and how such degradation may be permissible. The section also describes a related State Water Board doctrine that applies in situations when waters are not high quality.

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The State Water Board has interpreted Resolution No. 68-16 to incorporate the Federal Antidegradation Policy in situations where the policy is applicable. (SWRCB Order No. WQ 86-17). The application of the federal Antidegradation Policy to nonpoint source discharges (including discharges from irrigated agriculture) is limited. [A]

New Footnote A: 40 CFR 131.12(a)(2) requires that the "State shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and *all cost-effective and reasonable best management practices for nonpoint source control.*" The EPA Handbook, Chapter 4, clarifies this as follows: "Section 131.12(a)(2) does not mandate that States establish controls on nonpoint sources. The Act leaves it to the States to determine what, if any, controls on nonpoint sources are needed to provide attainment of State water quality standards (See CWA Section 319). States may adopt enforceable requirements, or voluntary programs to address nonpoint source pollution. Section 40 CFR 131.12(a)(2) does not require that States adopt or implement best management practices for nonpoint sources prior to allowing point source degradation of a high quality water. However, States that have adopted nonpoint source controls must assure that such controls are properly implemented before authorization is granted to allow point source degradation of water quality." Accordingly, in the context of nonpoint discharges, the BPTC standard established by state law controls.

Administrative Procedures Update 90-004, Antidegradation Policy Implementation for NPDES Permitting, provides guidance for the Regional Boards in implementing Resolution No. 68-16 and 40 CFR 131.12, as these provisions apply to NPDES permitting. APU 90-004 is not ~~controlling~~ applicable in the context of the irrigated lands long-term program because nonpoint discharges from agriculture are exempt from NPDES permitting.

Pages 59 through 61, Definitions, High Quality Waters

Resolution 68-16 ~~refers to~~applies whenever "existing quality of water ~~[that]~~ is better than quality established in policies as of the date such policies become effective,"[25] and 40 CFR 131.12 refers to "quality of waters [that] exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation." Such waters are "high quality waters" under the State and federal antidegradation policies. In other words, high quality waters are waters with a ~~baseline~~ background quality of better quality than that necessary to protect beneficial uses ~~(the term "baseline" is discussed below)~~.[26] The CWC directs the State Water Board and the Regional Water Boards to establish water quality objectives for the reasonable protection of beneficial uses. Therefore, where water bodies contain levels of water quality constituents or characteristics that are better than the established water quality objectives, such waters are considered high quality waters.

Both state and federal guidance indicates that the definition of high quality waters ~~may be~~is established by constituent or parameter [State Water Board Order No. WQ 91-10;EPA Water Quality Handbook, Chapter 4 Antidegradation (40 CFR 131.12) ("EPA Handbook")]. Waters can be of high quality for some constituents or beneficial uses but not for others.

With respect to degraded groundwater, a portion of the aquifer may be degraded with waste while another portion of the same aquifer may not be degraded with waste. The portion not degraded is high quality water within the meaning of Resolution No. 68-16. See State Water Board Order No. WQ 91-10.

In order to determine whether a water body is a high quality water with regard to a given constituent, the background quality of the water body unaffected by the discharge must be compared to the water quality objectives. That background is generally determined based on current conditions of the water body. See SWRCB Order Nos. WQ-2000-07 and WQ-86-8. If the quality of a water body has declined since the adoption of the relevant policies and that subsequent decline was not a result of regulatory action consistent with the State antidegradation policy, a baseline representing the historically higher water quality may be an appropriate representation of background.[27] However, if the decline in water quality was permitted consistent with State and

federal antidegradation policies, the most recent water quality resulting from permitted action still constitutes the relevant baseline for determination of whether the water body is high quality. See, e.g., SWRCB Order No. WQ 2009-0007 at 12. Additionally, if water quality conditions have improved historically, the current higher water quality would again be the point of comparison for determining the status of the water body as a high quality water.

Revised Footnote 27: The ~~year 1968 represents the year in which the~~ State antidegradation policy was adopted in 1968, therefore water quality as far back as 1968 may be relevant to an antidegradation analysis. For purposes of application of the federal antidegradation policy only, the relevant year would be 1975. ~~Because the State policy applies to all waters of State, 1968 is the appropriate year in this analysis.~~

~~**Baseline Condition**~~

~~The term "baseline" is not used in the State or federal antidegradation policies but is a significant concept for application of the antidegradation law. In order to determine whether a water body is a high quality water with regard to a given constituent, the quality of that water at some baseline point must be compared to the water quality objectives. That baseline is not necessarily current conditions and may be very complicated to determine. Generally, baseline quality is the best quality of the receiving water that has existed since 1968,[27] unless subsequent lowering was a result of regulatory action consistent with State and federal antidegradation policies. If poorer water quality was permitted consistent with State and federal antidegration policies, the most recent water quality resulting from permitted action is the baseline water quality to be considered in an antidegradation analysis. If degradation in the water quality was attributable to activity not permitted in compliance with the antidegradation policy, the baseline is not current conditions. Conversely, if water quality conditions have improved since 1968, baseline would be reevaluated to represent the higher water quality.~~

~~In the context of the long-term ILRP, which aims to regulate discharges to a very large number of water bodies, each with numerous constituents, determination of a baseline water quality is a near impossible task. There is no comprehensive, waste constituent-specific information for all Central Valley surface and groundwater accepting agricultural wastes available for 1968 conditions, nor are comprehensive data available on changes in water quality since 1968.~~

~~In some cases, current water quality may be the appropriate baseline. Trends in agricultural irrigation practices since 1968 may indicate reduction in potential waste discharge. Section III.A of this report, Industry Summary, describes a general increase in efficient irrigation practices (drip, sprinkler) from 1970 to 2000. Irrigation water provides crops with water and a means for movement of waste constituents off site in tailwater discharge. Also, application of irrigation water may move waste constituents to groundwater through leaching losses. More efficient water use would work to minimize tailwater discharge and leaching of water that could carry waste to groundwater. Trends showing more efficient water use have been motivated by increased demand on fresh water supplies. This trend likely will continue into the future with or without increased Central Valley Water Board regulation.~~

~~This analysis is qualitative in nature. However, the logic of the analysis is appropriate given that technology has advanced over time, irrigation water has become more expensive, and irrigation water is not a "waste" that irrigated agricultural operations are tasked with "discharging" (it is a purchased commodity that can cut into profits). Considering this, it makes sense that operations, over time, would use better technology to reduce costs, thereby reducing use. Nevertheless, it~~

~~cannot be assumed that current water quality is always the appropriate baseline for Central Valley water bodies.~~

~~Given the complexity of determining the baseline quality in the long-term ILRP context and the significant variation in conditions over the broad areas covered by the program, any antidegradation analysis in support of an order implementing the long-term program will assume that at least some of the waters into which agricultural discharges will occur are high quality waters because unpermitted degradation has occurred since 1968. Moreover, available data show that currently existing quality of certain water bodies is better than the water quality objectives. Degradation of such waters can be permitted only consistent with the State and federal antidegradation policies.~~

~~Additionally, data collected by the Central Valley Water Board, dischargers, educational institutions, and others demonstrate that many water bodies in the Central Valley Region are already impaired for various constituents associated with irrigated agricultural activities, including pesticides (e.g., diazinon, chlorpyrifos, soil fumigants), salt, sediment, and nitrate. Many surface water bodies have been listed as impaired for these constituents pursuant to Clean Water Act Section 303(d) (see ECR and Section III.C of this report for information on surface and groundwater quality). The antidegradation policies, as interpreted in State Board Orders, require at a minimum that where a water body is already impaired, any discharge to that water body must not cause or contribute to an exceedance of water quality objectives.~~

Pages 61 and 62, Best Practicable Treatment or Control

Resolution 68-16 requires that, where degradation of high quality waters is permitted, ~~any activity that results in discharge to existing high quality waters meet WDRs that result in~~ best practicable treatment ~~and~~ or control (BPTC) limits the amount of degradation that may occur. Neither the CWC nor Resolution 68-16 defines the term "best practicable treatment or control." ~~The federal antidegradation provision, 40 CFR 131.12, does not contain a similar provision that would apply to nonpoint sources.~~[28]

> Deleted Footnote 28: ~~40 CFR 131.12(a)(2) requires that the "State shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and *all cost-effective and reasonable best management practices for nonpoint source control.*" The EPA Handbook, Chapter 4, clarifies this as follows: "Section 131.12(a)(2) does not mandate that States establish controls on nonpoint sources. The Act leaves it to the States to determine what, if any, controls on nonpoint sources are needed to provide attainment of State water quality standards (See CWA Section 319). States may adopt enforceable requirements, or voluntary programs to address nonpoint source pollution. Section 40 CFR 131.12(a)(2) does not require that States adopt or implement best management practices for nonpoint sources prior to allowing point source degradation of a high quality water. However, States that have adopted nonpoint source controls must assure that such controls are properly implemented before authorization is granted to allow point source degradation of water quality." Accordingly, in the context of nonpoint discharges, the BPTC standard established by state law controls.~~

Despite the lack of a BPTC definition, ~~Several~~ certain State Water Board water quality orders ~~have~~ and other documents provide direction on the interpretation of BPTC. ~~evaluated what level of treatment or control is technically achievable using "best efforts." and applied the best efforts factors in interpreting BPTC. In~~ The State Water Board has stated "one factor to be considered in determining BPTC would be the water quality achieved by other similarly situated dischargers, and the methods used to achieve that water quality." (See Order WQ 2000-07, at pages 10–11). In a "Questions and Answers" document for Resolution 68-16 (the Questions and Answers Document),

BPTC is interpreted to additionally include~~determining BPTC, the discharger should~~ a comparison of~~e~~ the proposed method to existing proven technology; evaluation of~~e~~ performance data (through treatability studies)~~;~~, and comparison of~~e~~ alternative methods of treatment or control~~, and consider the method currently used by the discharger or similarly situated dischargers. (SWRCB Order Nos. WQ 81-5, WQ 82-5, WQ 90-6, and WQ 2000-07)~~.[29] Many of the above considerations are made under the "best efforts" approach described later in this section [see section E.4, infra]. In fact, the State Water Board has not distinguished between the level of treatment and control required under BPTC and what can be achieved through "best efforts."

Revised Footnote 29: ~~This approach is summarized in~~ See *Questions and Answers, State Water Resources Control Board, Resolution No. 68-16*~~,~~ (February 16, 1995).

The Regional Water Board may not "specify the design, location, type of construction, or particular manner in which compliance may be had with [a] requirement, order, or decree" (CWC 13360). However, the Regional Water Board still must require the discharger to demonstrate that the proposed manner of compliance constitutes BPTC (SWRCB Order No. WQ 2000-7).

The requirement of BPTC is discussed in greater detail below.

Pages 62 through 66

Maximum Benefit to People of the State

Resolution 68-16 requires that where degradation of water quality is permitted, such degradation must be consistent with the "maximum benefit to people of the State." Only after "intergovernmental coordination and public participation" and a determination that "allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located" does 40 CFR 131.12 allow for degradation.

As described in the Question and Answers Document, ~~Factors~~ factors considered in determining whether degradation of water quality is consistent with maximum benefit to people of the State include economic and social costs, tangible and intangible, of the proposed discharge~~, compared to the benefits,~~ as well as the environmental aspects of the proposed discharge, including benefits to be achieved by enhanced pollution controls. Closely related to the BPTC requirement, consideration must be given to alternative treatment and control methods and whether ~~a~~ lower water quality can be abated or avoided through reasonable means, and the implementation of feasible alternative treatment or control methods should be considered.

USEPA guidance clarifies that the federal antidegradation provision "is not a 'no growth' rule and was never designed or intended to be such. It is a policy that allows public decisions to be made on important environmental actions. Where the State intends to provide for development, it may decide under this section, after satisfying the requirements for intergovernmental coordination and public participation, that some lowering of water quality in "high quality waters" is necessary to accommodate important economic or social development" (EPA Handbook for Developing Watershed Plans to Restore and Protect Our Waters, Chapter 4). Similarly, under Resolution 68-16, degradation is permitted where maximum benefit to the people of the State ~~important economic or social factors are~~is demonstrated.

~~3~~2. Water Quality Objectives and Beneficial Uses

[[This section has been moved up from below what was Section 2 and is now Section 4, "Application of Antidegradation Requirements…"]]

As described above, Resolution 68-16 and Section 40 CFR 131.12 are both site-specific evaluations that are not easily employed to address large areas or broad implementation for classes of discharges. However, ~~A~~as a floor, any degradation permitted under the antidegradation policies must not cause an exceedance of water quality objectives or a pollution or nuisance. Furthermore, the NPS Policy establishes a floor for all water bodies in that implementation programs must address NPS pollution in a manner that achieves and maintains water quality objectives and beneficial uses ~~regulatory program must prohibit agricultural discharges from causing or contributing to exceedances of water quality objectives to ensure that beneficial uses are protected, and that a pollution or nuisance is not caused.[31] It should be noted that, where natural background conditions exceed water quality objectives for a given constituent in a water body, the objectives do not require improvement over natural conditions. See Policy for Application of Water Quality Objectives contained in the Basin Plan for the Sacramento River and San Joaquin River Basins (IV-16 *et seq*.) and the Basin Plan for the Tulare Lake Basin (IV-21 *et seq*.)~~.

Deleted Footnote 31: ~~See SWRCB Order Nos. WQ 81-5; WQ 2000-07.~~

~~4~~3. Waters That are Not High Quality: The "Best Efforts" Approach

Where a water body is at or exceeding water quality objectives already, it is not a high quality water with respect to the constituent exceeding objectives and is not subject to the requirements of the antidegradation policies. As stated previously, data collected by the Central Valley Water Board, dischargers, educational institutions, and others demonstrate that many water bodies in the Central Valley Region are already impaired for various constituents associated with irrigated agricultural activities.

Where a water body is not high quality and the antidegradation policies are accordingly not triggered, the Central Valley Water Board is required under State Water Board precedent to set limitations more stringent than the objectives set forth in the Basin Plan. The State Water Board has directed that, "where the constituent in a groundwater basin is already at or exceeding the water quality objective, . . . the Regional Water Board should set limitations more stringent than the Basin Plan objectives if it can be shown that those limitations can be met using "best efforts." SWRCB Order No. WQ 81-5; *see also* SWRCB Orders Nos. WQ 79-14, WQ 82-5, WQ 2000-07. Finally, the NPS Policy establishes standards for management practices.

The "best efforts" approach involves the Regional Water Board establishing limitations expected to be achieved using reasonable control measures. Factors which should be analyzed under the "best efforts" approach include the effluent quality achieved by other similarly situated dischargers, the good faith efforts of the discharger to limit the discharge of the constituent, and the measures necessary to achieve compliance. (SWRCB Order No. WQ 81-5, at page 7.). The State Water Board has applied the "best efforts" factors in interpreting BPTC. (See SWRCB Order Nos. WQ 79-14, and WQ 2000-07.).

In summary, the Board may set discharge limitations more stringent than water quality objectives even outside the context of the antidegradation policies. The "best efforts" approach must be taken where a water body is not "high quality" and the antidegradation policies are accordingly not triggered.

~~2~~4. Application of Antidegradation Requirements to the Long-Term Irrigated Lands Regulatory Program

Whether a water body is a high quality water within the meaning of the antidegradation policies is a water body-specific and constituent-specific determination. Very little guidance has been provided in State or federal law with respect to applying the antidegradation policy to a program or general permit where multiple water bodies are affected by various discharges, some of which may be high quality waters and some of which may by contrast have constituents at levels that already exceed water quality objectives. In the context of the Long-term ILRP, which aims to regulate discharges to a very large number of water bodies, each with numerous constituents, making comprehensive determinations as to water quality is a near impossible task. There is no comprehensive, waste constituent-specific information for all Central Valley surface and groundwater accepting agricultural wastes available for current conditions. Likewise, there is no comprehensive historic data.[B]

New Footnote B: Irrigated lands discharges have been regulated under a conditional waiver since 1982, but comprehensive data as to trends under the waiver are not available.

Data collected by the Central Valley Water Board, dischargers, educational institutions, and others demonstrate that many water bodies in the Central Valley Region are already impaired for various constituents associated with irrigated agricultural activities, including pesticides (e.g., diazinon, chlorpyrifos, soil fumigants), salt, sediment, and nitrate. Many surface water bodies have been listed as impaired for these constituents pursuant to Clean Water Act Section 303(d) (see ECR and Section III.C of this report for information on surface and groundwater quality). However, available data show that currently existing quality of certain water bodies is better than the water quality objectives. For example, Figure 16 shows surface waters sampled for nitrate and whether these waters exceed objectives. As shown in the figure, there are water bodies sampled throughout the Central Valley that do not exceed water quality objectives for nitrates. These waters are considered "high quality" with respect to nitrates. Degradation of such waters can be permitted only consistent with the State and federal antidegradation policies.

Given the significant variation in conditions over the broad areas covered by the program, any discussion of the antidegradation principles in evaluation of the Long-term Program should account for the fact that at least some of the waters into which agricultural discharges will occur are high quality waters. Further, the discussion should also account for the fact that even where a water body is not high quality (such that discharge into that water body is not subject to the antidegradation policy), the Board is required under State Water Board precedent to impose limitations more stringent than the objectives set forth in the Basin Plan, if those limits can be met by "best efforts."

It is not possible to identify all areas in a large geographic region where ~~existing~~ background water quality may be higher than ~~background~~applicable ~~baseline~~ water quality objectives and ensure that the antidegradation policies are followed through a uniform set of requirements in addressing such waters. Instead, any program instituted to permit a type of discharge or category of discharge needs to be protective of beneficial uses throughout the entire geographical area to which the program applies and provide a means to evaluate and implement BPTC to minimize degradation of high quality waters ~~on a site-specific basis~~ where such degradation may be occurring.[30] Where waters are already degraded, the program should provide a means to evaluate and implement the "best efforts" approach.

~~As stated, given the complexity of determining baseline background water quality and in applying the antidegradation policy to a wide set of water bodies and constituents, the long-term ILRP assumes that some of the water bodies receiving irrigated agricultural discharges are high quality waters.~~ From a programmatic standpoint, irrigated land waste discharges have the potential to cause degradation of surface and groundwater, and the requirements of the anti-degradation policies must be followed. ~~Moreover, existing data show that some waters already have constituents associated with irrigated agricultural discharges in levels at or exceeding water quality objectives.~~ Accordingly, the long-term ILRP must ~~comply~~ be consistent with ~~the antidegradation~~Resolution 68-16 and related policies by ~~requiring~~ ensuring that:

- at a minimum, irrigated agricultural waste discharges must be addressed in a manner that achieves and maintains ~~may not cause or contribute to exceedances of~~ water quality objectives and beneficial uses;
- because it is expected that there may be degradation of some Central Valley high quality waters receiving irrigated agricultural discharges, maximum benefit to the people of the State must be shown;
- the requirements implementing the long-term ILRP must result in use of BPTC where irrigated agricultural waste discharges may cause ~~water quality~~ degradation of high quality waters; where waters are already degraded, the requirements must result in the pollution controls that reflect the "best efforts" approach.

Any long-term ILRP must ensure that all these requirements are met.

4~~5~~. Consistency with Maximum Benefit to the People of the State

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In summary, while the implementation of antidegradation requirements in the long-term ILRP aims to prevent further degradation, staff is cognizant that ~~it is also assumed that~~ there may be cases where irrigated agricultural waste discharges threaten to ~~some~~ degrade~~ation of~~ high quality waters ~~would occur from irrigated agricultural waste discharge~~. Considering, however, that~~:~~,

- Central Valley communities depend on irrigated agriculture for employment,
- the State and nation depend on Central Valley agriculture for food,
- the long-term ILRP would work to prevent further degradation of surface and groundwater, and
- the long-term ILRP would ensure that all State waters in the Central Valley meet applicable water quality objectives~~.~~,

~~Continued~~ continued waste discharge associated with irrigated agricultural operations that may cause degradation of high quality waters is, at a programmatic level, consistent with the maximum benefit to the people of the State.

Pages 66 through 68, BPTC

~~5~~6. Consistency with BPTC and the "Best Efforts" Approach

As discussed, without site-specific information on high quality waters and each agricultural input to those waters, it is not possible to do a "site- or discharge-" specific antidegradation analysis to support the general orders/waivers for the long-term ILRP as a whole. Instead, implementation of

the program must work to achieve site-specific antidegradation and antidegradation-related requirements through implementation of BPTC/"best efforts" as appropriate and representative monitoring to confirm the effectiveness of the BPTC/"best efforts" measures in achieving their goals~~preventing or minimizing degradation~~. Any regulatory program adopted will rely on implementation of practices and treatment technologies that constitute BPTC/"best efforts," based to the extent possible on existing data, and require monitoring of water quality to ensure that the selected practices in fact constitute BPTC where degradation of high quality waters is or may be occurring, and "best efforts" where waters are already degraded. Because the State Water Board has not distinguished between the level of treatment or control required under BPTC and what can be achieved through "best efforts," it is likely that the Central Valley Water Board would set a single set of requirements that would apply equally to high quality waters and already degraded waters. Of course, the selected practices must also be considered adequate "management practices" within the meaning of the NPS Policy.

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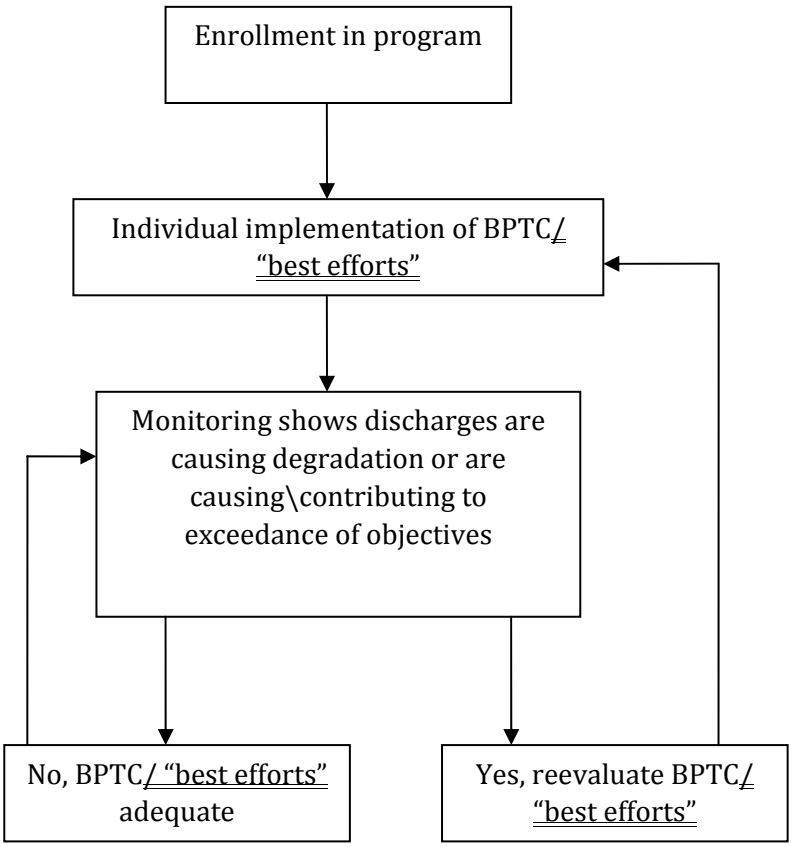
The goals for local selection of management measures include:

- minimize waste discharge off site in surface water,
- minimize erosion,
- minimize percolation of waste to groundwater,
- work to match nutrient application to predicted crop uptake, ~~and~~
- prevent pollution and nuisance,
- achieve and maintain water quality objectives and beneficial uses,
- implement wellhead protection measures.

Implementation of management measures that meet the above goals would be expected to constitute BPTC/"best efforts." However, where degradation is occurring, irrigated agricultural operators must *demonstrate* that any set of practices proposed for implementation represents BPTC and will be required to consider existing water quality data or conduct monitoring in support of this demonstration. It is expected that this will be an iterative process whereby the effectiveness of any set of practices in minimizing degradation will be periodically reevaluated as necessary and/or as more recent and detailed water quality data become available. Figure 21 is a logic flow diagram summarizing the antidegradation and antidegradation-related approaches for the long-term ILRP.

Page 68, Figure 21

Figure 21. Flow Diagram for Long-Term ILRP Antidegradation Approach



Page 72, Surface Water Protection Program

Under the California Pesticide Management Plan for Water Quality, DPR will investigate pesticides of concern and help develop recommended use practices designed to reduce or eliminate the impact of pesticides on surface water quality. Management practices designed to reduce contamination usually will be implemented initially through voluntary and cooperative efforts. Depending on the source of the residue problems, mitigation may include outreach programs to educate residential and professional users on ways to reduce pesticides in urban waters as well as programs targeted at modifying use practices among agricultural pesticide users. If the revised use practices (which are voluntarily adopted by pesticide users) do not adequately mitigate the impacts, DPR can use its wide-ranging regulatory authority to impose use restrictions. DPR may modify the use of pesticides by regulation or permit conditions to prevent excessive amounts of residues from reaching surface water. DPR has the role of evaluating the feasibility of these modifications and conditions, and of promulgating any necessary regulations. Although the State and Regional Water Boards

independently could use their authorities to regulate the discharge of pesticides, they ~~often~~ will work with DPR first to address these issues.

Page 80, Coordination of Groundwater Programs, Regulatory Authorities

The difference in Water Board and DPR regulatory authorities highlights the need for coordination between programs. For example, reported detection of pesticide residues in groundwater by either the Water Board or DPR would initiate an investigation. DPR would collect additional information to support the current regulatory process. While DPR proceeds with regulatory actions for the new detections, the long-term ILRP could immediately review the data, and where necessary, ~~and~~ inform growers using the pesticide in the affected area of the need to implement management practices to meet the requirements of the ILRP ~~to prevent further degradation of groundwater~~. The information collected (monitoring data and practices implemented) could be integrated into DPR's geographic approach to require management practices in other areas of the State with similar vulnerable characteristics.

Page 93, Program Goals and Objectives

The overall goals of the ILRP are to (1) restore and/or maintain the highest reasonable quality of State waters[33] considering all the demands being placed on the water, (2) minimize waste discharge from irrigated agricultural lands[34] that could degrade the quality of State waters, (3) maintain the economic viability of agriculture in California's Central Valley, and (4) ensure that irrigated agricultural discharges do not impair Central Valley communities' and residents' access to safe and reliable drinking water. In accordance with these goals, the objectives of the ILRP are to those listed below.

- Restore and/or maintain ~~appropriate~~ applicable beneficial uses established in Central Valley Water Board Water Quality Control Plans by ensuring that all state waters within the Central Valley meet applicable water quality objectives.

Page 98, Objectives

(1) Restore and/or maintain ~~appropriate~~ applicable beneficial uses established in Central Valley Water Board Water Quality Control Plans by ensuring that all State waters meet applicable water quality objectives

Page 111, Key Element 4

The goals of the program include restoring and/or maintaining the highest reasonable quality of State waters, minimizing waste discharge from irrigated agricultural lands, and restoring and/or maintaining ~~appropriate~~ applicable Basin Plan beneficial uses. Agricultural operations would work to achieve these goals through implementation of water quality management measures. Feedback mechanisms for determining whether these goals would be met include water quality monitoring and tracking of practices implemented.

Page 114, Antidegradation

Implementation of the program must work to achieve site-specific antidegradation and antidegradation-related requirements through iterative implementation of BPTC/"best efforts" and

representative monitoring (i.e., where monitoring indicates degradation, BPTC/"best efforts" would evolve to prevent such degradation).

Page 115, Alternative 1

Alternative 1 would not establish requirements for operations to implement BPTC/"best efforts" where trends in surface or groundwater monitoring show degradation attributable to agricultural waste discharges. The alternative would require management plans to work toward mitigating agriculturally related exceedances of surface water quality objectives.

Alternative 1 would not implement the iterative BPTC/"best efforts" and monitoring process for addressing degradation to groundwater. Through development and implementation of SQMPs, Alternative 1 would partially implement the iterative process for addressing degradation to surface waters (i.e., proposed process is geared toward identifying exceedances and not degradation). *Alternative 1 is not consistent with the proposed antidegradation approach.*

Page 115, Alternative 2

Under local groundwater management plans, management practices could be recommended based on information collected. Where degradation is occurring, antidegradation and antidegradation-related provisions require management practices implementing BPTC/"best efforts." Under third-party-developed GQMPs, groundwater quality management practices would be identified and implemented to the "maximum extent practicable." Groundwater quality monitoring would not be required under GQMPs to determine whether degradation is occurring and/or evaluate BPTC/"best efforts" effectiveness. *Alternative 2 is partially consistent with the proposed antidegradation approach.*

Page 116, Alternative 3

Alternative 3 would require all operations to develop individual FWQMPs. FWQMPs would be certified by the Central Valley Water Board or authorized certifying entity. Implementation of certified FWQMPs would be considered BPTC/"best efforts." Surface and/or groundwater quality monitoring would not be required under Alternative 3 to determine effectiveness of BPTC/"best efforts" and whether degradation is occurring. *Consequently, Alternative 3 is partially consistent with the proposed antidegradation approach.*

Page 116, Alternative 4

Alternative 4 would require all operations to develop individual FWQMPs. The alternative also would require individual and/or regional surface and groundwater monitoring. Implementation of FWQMPs would constitute BPTC/"best efforts." Results of surface and groundwater quality monitoring could be used to determine effectiveness of BPTC/"best efforts" and/or whether discharges are causing degradation. *Alternative 4 is consistent with the proposed antidegradation approach.*

Page 116, Alternative 5

Alternative 5 would require all operations to develop individual FWQMPs. The alternative also would require individual surface and groundwater monitoring. Implementation of FWQMPs would constitute BPTC/"best efforts." Results of surface and groundwater quality monitoring could be used

to determine effectiveness of BPTC/"best efforts" and/or whether discharges are causing degradation. *Alternative 5 is consistent with the proposed antidegradation approach.*

Page 134, Potentially Significant Impacts Common to All Alternatives

Where an irrigated agricultural operation/third-party group determines that a proposed management practice/monitoring well may affect a sensitive resource, the ILRP will require that the responsible party (e.g., irrigated agricultural operation/third party) either (1) select a different management practice (or location of practice/monitoring well) that meets water quality goals, but does not involve impacts on a sensitive resource; (2) implement the mitigation measures described in the implementation mechanism *(e.g., WDRs/ waiver)* for the potentially affected resource; or (3) work with the Central Valley Water Board to obtain an individual waste discharge permit and site-specific CEQA analysis.

Pages 134 and 135, Alternative-Specific Potentially Significant Impacts

In addition to the above impacts, there are ~~a number of potentially significant impacts that are specific to alternatives. Resource areas that have~~ alternative-specific potentially significant impacts ~~are~~on~~:~~

- ~~hydrology and water quality (contribute to degradation of groundwater – Alternative 1), and~~
- agriculture resources (loss of farmland from increased regulatory costs).

~~**Hydrology and Water Quality**~~

~~Alternative 1 would involve full implementation of the current ILRP. The Draft PEIR indicates that the surface water focus of Alternative 1 may lead to continued degradation of groundwater from agricultural practices. This potentially significant impact can be mitigated to less than significant through the development of a groundwater management plan that would be implemented by irrigated agricultural operations. The groundwater management plan would need to identify practices that would minimize waste discharge to groundwater from irrigated agricultural operations.~~

~~Alternatives 2–5 would require development of groundwater management plans – regional for Alternative 2, and individual for Alternatives 3–5. Alternative 2 is essentially Alternative 1 with groundwater management plan requirements. The groundwater management plans identified for Alternatives 2–5 would establish management practices that would work to minimize waste discharge to groundwater. *The measure described as mitigation for Alternative 1 would be a required part of the program under Alternatives 2–5.*~~

~~**Agriculture Resources**~~

The Economic Impacts section of this report summarizes economic modeling that has been conducted for the long-term ILRP. The modeling estimates economic impacts on irrigated agriculture by estimating change in production acreage and value of production based on increased regulatory costs.

Page 136, Waste Discharge to Groundwater

Options: Include groundwater requirements—Alternatives 2–5
Do not include groundwater requirements—Alternative 1

All the alternatives except Alternative 1 contain requirements for protecting groundwater from irrigated agricultural waste discharge. Alternative 1 did not fully meet the goals of the long-term ILRP, CWC requirements for protecting beneficial uses, and antidegradation requirements. This is mainly because Alternative 1 would not address waste discharge to groundwater from irrigated agricultural operations.

~~The Draft PEIR identifies significant environmental impacts on groundwater under full implementation of Alternative 1 mainly because of continued waste discharge to groundwater associated with agricultural operations.~~

Recommendation: Include groundwater requirements.

Pages 139 and 140, Water Quality Management Plans

Antidegradation and antidegradation-related requirements establish that BPTC/"best efforts" must be implemented as appropriate~~where degradation of water quality is occurring~~. Regional and individual water quality plans would work to implement BPTC/"best efforts." However, the approach outlined in Alternatives 1 and 2 would require plans only in areas that already have exceedances of water quality objectives. In order to meet antidegradation requirements, regional plans also should be developed in areas where irrigated agricultural waste discharges are causing degradation.

***

Recommendation: Regional water quality plans similar to those described in Alternatives 1 and 2 with additional requirements to (1) ensure the plans are designed to implement BPTC/"best efforts" to minimize degradation and address exceedances of water quality objectives, and (2) develop individual water quality management plans where regional plans have been ineffective.

Page 142, Recommended Long-Term Irrigated Lands Regulatory Program

This section includes the following topics:

- Scope
- Goals and objectives
- Timeframe for implementation
- Implementation mechanism
- Lead entity
- Regulatory requirements
- Monitoring provisions
- Time schedule for compliance
- Fees

Pages 147 and 148, Third Party

8. If a monitoring well is proposed, for compliance with the ILRP, that may affect a sensitive resource (e.g., endangered species habitat, sensitive plant communities), the entity responsible for selection and location of the well (e.g., third party) must (1) select a different monitoring well location that meets water quality goals, but does not involve impacts on the resource, or (2) implement the mitigation measures described in the implementation mechanism (e.g., WDRs/ waiver) for the potentially affected resource, or (3) work with the Central Valley Water Board to obtain a site-specific CEQA analysis.[51]

Page 150, Regulatory Requirements

5. Where a management practice is proposed, for compliance with the ILRP, and the irrigated agricultural operation responsible for selection and implementation of the practice determines that it may affect a sensitive resource (e.g., endangered species habitat, sensitive plant communities), the irrigated agricultural operation must (1) select a different management practice that meets water quality goals, but does not involve impacts on a sensitive resource, or (2) locate the management practice outside of sensitive resource areas, or (3) implement the mitigation measures described in the implementation mechanism (e.g., WDRs/ waiver) for the potentially affected resource, or (4) work with the Central Valley Water Board to obtain an individual waste discharge permit and site-specific CEQA analysis.[54]

Page 152, Tier 1

Under this tier, the Central Valley Water Board considers the existing level of management objectives as BPTC/"best efforts," and protective of surface and groundwater quality. Third-party groups are required to describe the area's existing water quality management objectives in a report to the Central Valley Water Board. Management practices tracking, every 5 years, would be the method by which the Central Valley Water Board would evaluate, in general, whether operations are continuing to meet existing management objectives.

Pages 153–155, Tier 2

An SQMP must be developed for the watershed represented by the monitoring site for any parameter that exceeds water quality objectives two or more times in a 3-year period. Surface water quality management plans developed under the existing ILRP would be accepted under the long-term ILRP. Under SQMPs, irrigated agricultural operations are required to implement management practices to achieve BPTC/"best efforts"[58] of the constituent of concern. Monitoring and other collected information would be used to assess the effectiveness of management practices and whether BPTC/"best efforts" has been achieved. Additional practices/monitoring may be necessary, in an iterative process, to address water quality concerns. Required elements of SQMPs are given in Appendix D.

Revised Footnote 58: BPTC/"best efforts" is considered here to comply with State Water Board Resolution 68-16, *State Antidegradation Policy and antidegradation-related requirements (*see Section IV.E of this report*)*.

Constituent of concern is defined as: waste constituent discharged from irrigated agricultural operations with the potential to degrade surface or groundwater quality or contribute or cause exceedances of water quality objectives.

***

Third-party group develop and submit for Central Valley Water Board approval a GQMP within 18 months of issuance of the geographic/commodity specific WDRs by the Central Valley Water Board [except in areas where a local groundwater management plan has been developed and approved (by the Central Valley Water Board) for substitution].[59] Under GQMPs or local groundwater management plans, irrigated agricultural operations would be required to implement management practices to achieve BPTC/"best efforts" of the constituent of concern.[60] Monitoring and other collected information would be used to assess the effectiveness of management practices and whether BPTC/"best efforts" has been achieved. Additional practices/monitoring may be necessary, in an iterative process, to address water quality concerns.

Page 156, Monitoring provisions

The general goals of the ground and surface water quality monitoring efforts are to determine:

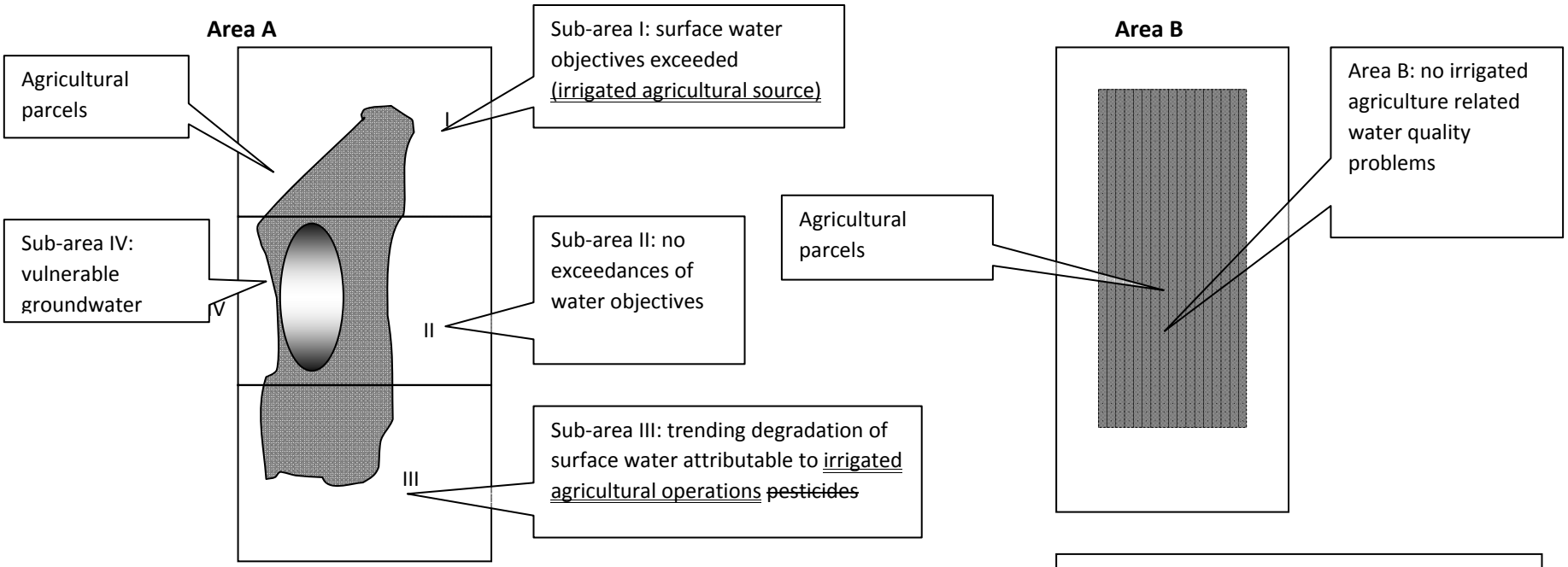
- whether the discharge of waste from irrigated lands are in compliance with applicable water quality objectives, total maximum daily loads (TMDLs), and implementation plans in the Basin Plans;
- the extent of management practice implementation;
- the effectiveness of implemented management practices and whether those practices achieve BPTC/"best efforts;"
- the effectiveness of any applicable regional ground or SQMP; and
- compliance with the requirements or conditions of applicable WDRs or waivers of WDRs.

Page 159, Priority Surface Water Quality Issues

3. Which pollutants are considered priority?—those pollutants that cause or contribute to a violation of water quality objectives or degradation of surface water quality associated with the priority beneficial uses and water bodies.

Page 161, Figure 23

Figure 23. Long-Term ILRP Prioritization Scheme Example



Area A: WDRs	Sub-area I	Sub-area II	Sub-area III	Sub-area IV
SW requirements	Tier 2	Tier 1	Tier 2	Tier 1
GW requirements	Tier 1	Tier 1	Tier 1	Tier 2

Page 167, Antidegradation

Applicable antidegradation provisions and the ILRP's strategy for meeting the provisions are described in Sections IV.E and IX.A.4 of this report. Generally, to be consistent with antidegradation provisions, the ILRP must include the following programmatic approach:

> ***Implementation of the program must work to achieve site-specific antidegradation and antidegradation-related requirements through iterative implementation of BPTC/"best efforts" and representative monitoring (e.g., where monitoring indicates degradation, BPTC would evolve to prevent such degradation).***

In Section IX.A.4, only Alternatives 4 and 5 were found to be fully consistent with antidegradation provisions. Alternative 2 was found to be partially consistent with antidegradation requirements. This is because the regional surface and groundwater management plan approach would require implementation of management practices where there are exceedances of water quality objectives, whereas ~~the~~ antidegradation and antidegradation-related provisions require implementation of management practices (BPTC/"best efforts") as appropriate where degradation is occurring. Also, inconsistent with the programmatic approach described above, Alternative 2 would not require groundwater quality monitoring. The recommended ILRP includes Alternative 2's regional ground and surface water management approach, but includes (1) provisions to ensure that management practices (BPTC/"best efforts") would be required as appropriate ~~where degradation is occurring~~, and (2) regional surface and groundwater monitoring similar to Alternative 4. *The recommended ILRP is consistent with the antidegradation approach.*

Pages 171 and 172, Recommended Irrigated Lands Regulatory Program Environmental Impacts

Potential significant environmental impacts of all five alternatives are associated with implementation of water quality management practices, construction of monitoring wells, and potential loss of agriculture resources. Loss of agricultural resource lands has been estimated using economic modeling procedures, considering the potential costs of each alternative. Alternatives with lower costs are estimated to result in less loss of agriculture resources (see Section IX.C.2). ~~Additionally, Alternative 1 may have significant environmental impacts on groundwater quality because of failure to institute requirements to protect groundwater quality.~~

***

> *Where an irrigated agricultural operation/third-party group determines that a proposed management practice/monitoring well, for which they have responsibility for selection and implementation, may impact a sensitive resource, the ILRP will require that the ~~irrigated agricultural operation/third~~responsible party (whomever is responsible for selection and implementation of the practice or monitoring well) (1) select a different management practice (or location of practice/monitoring well) that meets water quality goals, but does not involve impacts on a sensitive resource, or (2) implement the mitigation measures described in the implementation mechanism (e.g., WDRs/ waiver) for the potentially affected resource, or (3) work with the Central Valley Water Board to obtain an individual waste discharge permit and site-specific CEQA analysis.*

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Page B-8, Major Non-Agricultural Sources of Nitrate

Publicly Owned Treatment Works

Land applications of effluent and biosolids from publicly owned treatment works (POTWs) have been identified as one of the sources of nitrate found in California's groundwater (Anton, et. al., 1988). This conclusion has been supported by studies conducted by the State Water Board which have identified discharges of municipal wastewater as one of the anthropogenic sources responsible for nitrate groundwater impacts (State Water Resources Control Board, Division of Water Quality, GAMA Program 2010).

Pages B-44 and 46, Selected References and Bibliography

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Page D-1, Surface Water Quality Management Plan Requirements

3. Identification of irrigated agriculture source(s)—general practice(s) or specific location(s)—that may be the cause of the water quality problem. If the potential sources are not known, a study design must be included to determine the source(s) or to eliminate agriculture as a potential source. Source identification can include more intensive sampling in the watershed or field studies to quantify the relevant waste discharge from irrigated lands. In lieu of conducting additional source analysis, the management plan can focus on ensuring that all growers are implementing practices that achieve BPTC/"best efforts" for the parameter(s) of concern.

Page D-3, Groundwater Quality Management Plan Requirements

3. Identification of irrigated agriculture source(s)—general practice(s) or specific location(s)—that may be the cause of the water quality problem. If the potential sources are not known, a study design must be included to determine the source(s) or to eliminate agriculture as a potential source. Source identification can include more intensive sampling in the relevant

aquifer or field studies to quantify the relevant waste discharge from irrigated lands. In lieu of conducting additional source analysis, the management plan can focus on ensuring that all growers are implementing practices that achieve BPTC/"best efforts" for the constituent(s) of concern.

Page D-6, Individual FWQMP Requirements

FWQMP content at a minimum would include (1) name and contact information of owner/operator; (2) description of operations, including number of irrigated acres, crop types, and chemical/fertilizer application rates and practices; (3) maps showing the location of irrigated production areas, discharge points and named water bodies; (4) applicable information on water quality management practices used to achieve general ranch/farm management objectives and reduce or eliminate discharge of waste to ground and surface waters; (5) measures instituted to ~~comply with California Code of Regulations, Title 3, Section 6609 requirements for wellhead protection (from pesticide contamination) along with methods for~~ensure wellhead protection from fertilizer use; and 6) identification of any potential conduits to groundwater aquifers on the property (e.g., active, inactive, or abandoned wells; dry wells; recharge basins; ponds) and steps taken, or to be taken, to ensure all identified potential conduits do not carry contamination to groundwater.

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Chapter 6
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