San Luis Obispo County Region
Integrated Regional Water Management (IRWM)
Regional Water Management Group (RWMG)

AGENDA

Date: June 7, 2017
Time: 10:00 AM – 12:00 PM
Location: SLO City/County Library Community Room, 995 Palm St, San Luis Obispo, CA 93401

1) Introductions/Public Comment

2) Ongoing Updates

3) Project Abstract Solicitation Update
   a) Receive the list of submitted projects abstracts
   b) Consider updating the Full Project List with the received updates of existing project updates and the new project submissions

4) 2018 IRWM Plan Update
   a) Presentation on 2018 IRWM Plan Update timeline and tasks
   b) Consider publishing notice of intent to update the IRWM Plan (Government Code §6066)
   c) Consider continuation of RWMG Working Group to update IRWM Plan

5) Workshop activity for IRWM Plan Update (handouts provided at meeting)
   Intention: To provide direction to the Working Group (if formed) on updating the following Plan sections:
   a) Section E: IRWM Goals and Objectives
   b) Section F: Resource Management Strategies (RMS)
   c) Section G: Project Solicitation, Selection, and Prioritization
   d) Section J: Plan Performance and Monitoring

NOTICE: All IRWM notices will be emailed only by the online mailing list service after September 6, 2017. Please sign-up for the IRWM Stakeholder mailing list online at http://www.slocountywater.org/irwm

NEXT RWMG MEETING:
Wednesday September 6, 2017 at 10:00 AM – 12:00 PM
SLO City/County Library Community Room, 995 Palm St, San Luis Obispo CA

For more information, please contact
Mladen Bandov, County of San Luis Obispo Public Works Department
mbandov@co.slo.ca.us
(805) 781-5116
www.slocountywater.org/irwm

San Luis Obispo County Integrated Regional Water Management (IRWM)
Regional Water Management Group (RWMG) Meeting
Date: April 5, 2017

Item: Agenda Item #5b and #5c
Motion: **Item #5a.** Consider opening a region-wide solicitation for new project abstracts to update the full project list; **Item #5b.** Consider RWMG Working Group for preliminary review of project abstracts; RWMG Working Group formed by members representing Cambria CSD, City of Morro Bay, City of San Luis Obispo, Central Coast Salmon Enhancement, Morro Bay National Estuary Program, Nipomo CSD, and Templeton CSD
Motioned: ---
Seconded: ---

Voice vote only (no roll call). Motion passes.

RWMG Member	Aye	Nay	Abstain	Absent
San Luis Obispo County				
San Luis Obispo County Flood Control and Water Conservation District				
California Men's Colony				
Cambria CSD				
Cayucos Sanitary District				
City of Arroyo Grande				
City of Grover Beach				
City of Morro Bay				
City of Paso Robles				
City of Pismo Beach				
City of San Luis Obispo				
Central Coast Salmon Enhancement				
Coastal San Luis Resource Conservation District				
Heritage Ranch CSD				
Land Conservancy				
Los Osos CSD				
Morro Bay National Estuary Program				
Nipomo CSD				
Oceano CSD				
Templeton CSD				
San Miguel CSD				
San Miguelito Mutual Water Company				
San Simeon CSD				
South San Luis Obispo County Sanitation District				
S&T Mutual Water Company				
Upper Salinas-Las Tablas Resource Conservation District				
TOTAL				

TO: IRWM Regional Water Management Group

FROM: Mladen Bandov, Water Resources Engineer

DATE: June 7, 2017

SUBJECT: Item #3: Project Abstract Solicitation Update

Recommendations

1. Receive the list of submitted project abstracts
2. Consider updating the Full Project List with the received updates of existing projects and new project submissions

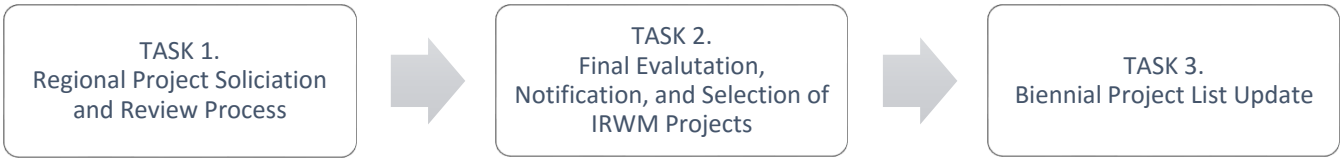
Discussion

On April 5, 2017, the RWMG opened a region-wide solicitation for new projects abstracts in anticipation of the 2018 IRWM Plan Update and the upcoming Prop 1 IRWM Implementation Grant solicitation in early 2018.

Fourteen (14) new project abstracts were received during this solicitation period. Nine (9) updates to existing projects already on the Full Project List were also received. Additional requests to project sponsors for existing projects are in progress.

The **Project Abstract Submissions for May 2017** are available online at https://slocountywater.org/site/Frequent%20Downloads/Integrated%20Regional%20Water%20Management%20Plan/pdf/Project%20Abstract%20Submissions%20May%202017.pdf

The 2014 IRWM Plan describes the project solicitation process (*Section G. Project Solicitation, Selection, and Prioritization*), which describes the submittal and review process to update the project list:



Task 1. Regional Project Solicitation and Review Process consists of the following phases:

- Phase 1a & Phase 1b: Provide a first means of gathering **projects** (any projects, programs, studies, etc.) and **concepts** (high level ideas for improving local water resources)
- Phase 2: A rigorous project application to improve the level of project understanding for both the RWMG and the project proponents

Submissions for this solicitation were received on the Phase 1a Abstract Form template, which was posted on the San Luis Obispo County IRWM website (http://www.slocountywater.org/irwm). Projects/programs to be included in the IRWM Plan are evaluated on a pass/fail basis that meet the following two conditions:

- **Condition #1:** Is it IRWM related? Does is satisfy one or more of the following?
  - Is it regional? (geographically, or has regional benefit)
  - Is it being sponsored or developed by multiple agencies?
  - Is it a multi-benefit project or program?
  - Is it a project supporting a critical water supply or water quality need within a disadvantaged community (DAC) boundary?
- **Condition #2:** Does it meet one or more IRWM Goals and can it be used to satisfy multiple Objectives?

Based on a preliminary evaluation of the submitted abstracts, all new projects meet these conditions. Therefore, all new projects are recommended to be included in the IRWM Plan's Full Project List. Abstract updates for existing projects will be evaluated during the IRWM Plan Update process.

The next phase for project evaluation (Phase 2) requires a more rigorous evaluation via the Long Form (see Appendix G of the 2014 IRWM Plan) to improve the level of project understanding for both the RWMG and the project proponents.

A Short List of ready-to-proceed projects was developed during the 2014 IRWM Plan udpate. A complete status update for all existing projects, together with the May 2017 new project submissions, are necessary to develop Short List for the next IRWM Plan update. To be compliant with Department of Water Resources' 2016 IRWM Standards, the project review factors would need to include additional climate change considerations (see below). The Department of Water Resources' 2016 IRWM Standards are available online at http://www.water.ca.gov/irwm/grants/p1_guidelines.cfm

Project Review Process

The IRWM Plan must contain a process or processes to select projects for inclusion in the IRWM Plan. The selection process(es) must include the following components:

- *Procedures for submitting a project to the RWMG*
- *Procedures for review of projects considered for inclusion into the IRWM Plan. These procedures must, at a minimum, consider the following factors:*
  - *How the project contributes to the IRWM Plan objectives*
  - *How the project is related to resource management strategies selected for use in the IRWM Plan*
  - *Technical feasibility of the project*
  - *Specific benefits to DAC water issues, including whether a project helps address critical water supply or water quality needs of a DAC*
  - *Environmental Justice (EJ) considerations*

    - *Project costs and financing*
    - *Economic feasibility, including water quality and water supply benefits and other expected benefits and costs*
    - *Project status*
    - *Strategic considerations for IRWM Plan implementation*
    - *Contribution of the project in adapting to the effects of climate change in the region*
    - *Contribution of the project in reducing GHG emissions as compared to project alternatives*
    - *Whether the project proponent has adopted or will adopt the IRWM Plan*
    - *For IRWM regions that receive water supplied from the Sacramento-San Joaquin Delta, how the project or program will help reduce dependence on the Sacramento-San Joaquin Delta for water supply*
- *Procedures for displaying the list(s) of selected projects*

Review factors must be evaluated for each project and compared for all projects in a systematic manner. The results should be used to promote and prioritize projects in the selection process, while keeping in consideration the unique goals and objectives of the IRWM Region.

***(*new*)** Review factors must also include the following climate change considerations:*

- *Include potential effects of Climate Change on the region and consider if adaptations to the water management system are necessary.*
- *Consider the contribution of the project to adapting to identified system vulnerabilities to climate change effects on the region.*
- *Consider changes in the amount, intensity, timing, quality and variability of runoff and recharge.*
- *Consider the effects of SLR on water supply conditions and identify suitable adaptation measures.*
- *Consider the contribution of the project in reducing GHG emissions as compared to project alternatives*
- *Consider a project's ability to help the IRWM region reduce GHG emissions as new projects are implemented over the 20-year planning horizon.*
- *Reduce energy consumption, especially the energy embedded in water use, and ultimately reducing GHG emissions.*

These new climate change considerations are recommended to be included as project review factors in the project description form, allowing for a thorough evaluation of projects into the Short List.

Attachment: Project Abstract Submissions (May 2017) [note: abstract submissions for existing project updates are not included]

Project No.	Project/Program Title	Project Sponsor	Sub-Region	Brief Description
NEW SUBMITTALS (MAY 2017)				
2017 NT-01	Cayucos Sustainable Water Project	Cayucos Sanitary District	North Coast	Provide the community of Cayucos with efficient and reliable wastewater treatment, while producing high quality water that will enhance the community's long-term water supply reliability through the construction of a District owned and operated Water Resource Recovery Facility (WRRF). Incorporates a robust wastewater treatment process to improve discharge water quality, maximize recycled water availability for irrigation and provide adaptability for potable reuse and delivery of purified water to Whale Rock Reservoir, thereby augmenting water supply options for the San Luis Obispo County region by providing a local drought-proof water supply that will benefit future generations.
2017 NT-02	Morro Valley Water Reliability Plan	Central Coast Infrastructure Investment Forum	North Coast	Develop conceptual model and action plan to improve water availability, reliability & conservation. Define existing water uses and demands and evaluate future needs.
2017 NT-03	3rd Street Chromium Removal	Los Osos Community Services District	North Coast	Explore the idea of a filtration or ion exchange systems to remove the chromium from the 3rd Street Well. This would be an extra added source of water the District currently owns that is not in use. Sampling has been done over the years on this well with levels ranging from 11.2 to a current read of 7.3.
2017 NT-04	Baywood Park 2nd Street Stormwater Management	Morro Bay National Estuary Program	North Coast	Retrofit two blocks of 2nd Street in Baywood Park to provide green infrastructure to decrease existing and anticipated impacts water resource issues due to climate change, decrease neighborhood flooding and improve the water quality entering the Morro Bay Estuary.
2017 NT-05	Camp San Luis Obispo Chorro Creek Habitat Management Program	California Army National Guard	North Coast	Protect, restore, and enhance Chorro Creek waterways and habitat on Camp San Luis Obispo to include development of a steelhead management plan and agency consultation, Chorro Creek habitat assessment, installation of riparian and wetland fencing, invasive species removal, fish barrier removal, creek bank stabilization, grazing management, off-creek water development, stream course rehabilitation, and steelhead/CRLF monitoring.
2017 NT-06	WWTP Nutrient Removal and Efficiency Improvements	Cambria Community Services District	North Coast	This project will modify the existing wastewater treatment plant to complete a modified Ludzack-Ettinger process for nitrate removal within an activated sludge process. Efficiency improvements will include automating dissolved oxygen control, upgrades to aeration blowers, new sludge digesters, flow equalization, electrical improvements, and associated instrumentation controls.
2017 NT-07	Los Osos Creek Groundwater Replenishment and Recharge Project	Los Osos Basin Management Committee	North Coast	The Los Osos Creek Groundwater Replenishment and Recharge Project will utilize recycled water from the Los Osos Wastewater Reclamation Facility to recharge the lower aquifer of the Los Osos Groundwater Basin. The project is intended to reduce the potential for continued seawater intrusion into the lower aquifer while maximizing basin yield.
2017 RG-01	Expanded Key Percolation Zone Study	Upper Salinas Las Tablas Resource Conservation District	Regional	Build upon the methodology used in the Expand the Key Percolation Zone Study for Santa Rosa and San Luis Obispo Creeks to develop mapping of key percolation zones in San Luis Obispo County.
2017 SC-01	One Water SLO	City of San Luis Obispo	South County	Increase storage and improve water quality by maximizing the use of recycled water by positioning the City to host pilot projects related to potable reuse, providing a location for public education and engagement through an on-site water resource learning center
2017 SC-02	Meadow Park Stormwater Capture and Use Project	City of San Luis Obispo	South County	Capture and use of Meadow Park underground reservoir to divert existing high stormwater runoff flows from the Broad Street neighborhood that currently enter Meadow and San Luis Obispo Creeks for park irrigation and decrease use of the City's water supply
2017 SC-03	Lower San Luis Obispo Creek Fish Passage Improvement and Seawater Intrusion Barrier Planning Study	San Miguelito Mutual Water Company	South County	Study of potential modifications, repair and maintenance of the Marre weir to further improve fish passage while maintaining protection of freshwater habitat and groundwater from sea water intrusion
2017 SC-04	Avila Valley Regional Recycled Water Program	San Miguelito Mutual Water Company (SMMWC) and Avila Beach Community Services District (District)	South County	Implement a recycled water program within the Avila Region to promote interagency coordination in addressing water supply challenges via a regional wastewater collection, treatment, and recycled water distribution system

Project No.	Project/Program Title	Project Sponsor	Sub-Region	Brief Description
2017 SC-05	See Canyon Habitat Enhancement Project	Central Coast Salmon Enhancement	South County	Generate 65% plans and permits for two fish passage barriers in the watershed (steelhead and lamprey), identify stream flow augmentation and groundwater storage recommendations, conduct a roads sediment analysis and generate concept plans to reduce sediment yield from rural roads in the watershed, analyze existing instream habitat complexity and flood plain restoration potential and provide concept plan to enhance, reviews opportunity for voluntary instream flow transfers, and involve the watershed's residents in vetting project concepts to develop federal cost-share funds (EQIP) for implementation.
2017 SC-06	Arroyo Grande Creek Floodplain Habitat Restoration	Coastal San Luis RCD and Central Coast Salmon Enhancement	South County	Conduct feasibility and design to restore flood plain habitat on Arroyo Grande Creek with potential for a groundwater recharge site.
	PROJECT UPDATES			
Existing Project Update	Chorro Creek Ecological Reserve Floodplain Restoration Project	Morro Bay National Estuary Program	North Coast	The Chorro Creek Floodplain Restoration Project will re-establish Chorro Creek's historic floodplains and restore riparian vegetation to: (1) capture sediment to prevent rapid filling of the Morro Bay Estuary downstream, (2) create valuable habitat for state and federally listed species, specifically threatened steelhead, and (3) help protect water quality.
Existing Project Update	Lopez Pipeline Improvements	Northern Cities Management Area (NCMA) Agencies: Oceano Community Services District (OCSD), City of Arroyo Grande, City of Grover Beach, City of Pismo Beach	South County	Increase the capacity of the Lopez pipeline and the State Water Project (SWP) connection to the Lopez Water Treatment Plant, improve water supply reliability to the South County Sub-Region, and include: the 33' pipeline pigging project, a pigging evaluation and updated capacity assessment, design and construction of Lopez pipeline improvements and implementation of the Lopez Bypass Pipeline conversion project.
Existing Project Update	Los Padres CCC Center - Stormwater LID Treatment Project	Morro Bay National Estuary Program	North Coast	The CCC Stormwater LID Treatment project will focus on eliminating flooding at CCC Buildings while also increasing groundwater infiltration and habitat restoration by installing site specific topographical earthwork features (LID). Over one million gallons of water can be mitigated on the project site while diminishing adjacent Chorro Creek storm hydrogrpah through seven acres of habitat restoration.
Existing Project Update	Mid-Higuera Bypass	City of San Luis Obispo	South County	Increase the flood control capacity of San Luis Obispo Creek (creek) between Marsh Street and Madonna Road by excavation of two new channels (South Street Bypass and the Bianchi Bypass) that bypass the existing creek channel and be active during a 2-year or higher storm; construction of channel terraces/benches; sediment removal at the Marsh Street Bridge; replacement of the Bianchi Lane Bridge; the removal of invasive species, promotion of a canopy of native species and willows overhanging pools, as well as the installation of strategically located habitat features such as pool forming root wads, rock deflectors, and vegetated rock slope protection.
Existing Project Update	Nacimiento Water Project Energy Recovery Turbine	City of San Luis Obispo	South County	Raw water from the Nacimiento Water Project is delivered to the City's water treatment plant on Stenner Creek Road, and there is significant potential energy in the water that is currently being controlled by head-breaking sleeve valves.
Existing Project Update	Regional Groundwater Sustainability Project (RGSP)	City of Pismo Beach	South County	Design, construction, and implementation of an Advanced Treatment Facility (ATF) to treat flows from the City of Pismo Beach (City) and the South San Luis Obispo County Sanitation District (SSLOCSD) wastewater treatment plants, produce advanced purified water to inject into and recharge the Santa Maria Groundwater Basin, and protect against seawater intrusion.
Existing Project Update	Recycled Water Distribution System Expansion	City of San Luis Obispo	South County	Extend the recycled water distribution system from the City's existing main on Madonna Road approximately 2,000 feet to serve CL Smith Elementary School. The site, which currently uses approximately 12 acre feet annually of potable water for landscape irrigation, was identified as a priority connection as it is located proximate to an existing backbone recycled water main.
Existing Project Update	Santa Maria Groundwater Basing Groundwater Flow Model	NCMA Agencies (Oceano Community Services District, Cities of Arroyo Grande, Grover Beach and Pismo Beach)	South County	Develop a computational groundwater flow model and perform modeling analysis for the Santa Maria Groundwater Basin (SMGB) to: establish safe yield estimates for SMGB, develop strategies to prevent seawater intrusion, analyze impacts of localized pumping and develop alternative pumping strategies to improve the long-term sustainability, and evaluate the potential for groundwater storage and conjunction use programs for the basin.
Existing Project Update	Water Conservation Partnerships in Chorro Valley	Morro Bay National Estuary Program	North Coast	Help protect creek and groundwater resources in the Chorro Valley by working with landowners on projects that could potentially include rainwater harvesting, winter water storage, water rights alterations, and other conservation practices to protect stream flow during the dry months of the year

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Project Number: **2017 NT-01**
Project Title: **Cayucos Sustainable Water Project**
Project Sponsor: **Cayucos Sanitary District**

Project Sponsor Contact

Contact Name: Rick Koon, District Manager
Address: 200 Ash Avenue, Cayucos, CA 93430
Email: rkoon@cayucossd.org
Phone: (805) 995-3290

Project Description

The CSWP will provide the community of Cayucos with efficient and reliable wastewater treatment, while producing high quality water that will enhance the community's long-term water supply reliability through the construction of a District owned and operated Water Resource Recovery Facility (WRRF). The CSWP incorporates a robust wastewater treatment process to improve discharge water quality, maximize recycled water availability for irrigation and provide adaptability for potable reuse and delivery of purified water to Whale Rock Reservoir, thereby augmenting water supply options for the San Luis Obispo County region by providing a local drought-proof water supply that will benefit future generations.

Need for Project

The District currently treats wastewater at the combined Morro Bay Cayucos Sanitary District Wastewater Treatment Facility (MBCSD WWTF), a facility that requires significant upgrades, does not produce high quality effluent for ocean discharge or recycled water use, and was recently denied a California Coastal Commission (CCC) Coastal Development Permit (CDP) for an upgrade at the existing site location due to concerns over the impacts from climate change and rising sea levels. In response to the CCC's denial of the CDP, the District pursued an alternative location for an upgraded wastewater treatment facility and developed the CSWP to construct a new facility that met regulatory requirements and would be able to produce high quality potable water that will serve as a local asset to the community.

Project Information

Sub-Region: **North Coast (NT)**
Latitude, Longitude: ---
Land Use: Agricultural
Watershed: Cayucos Creek Whale Rock Area Watershed;
Sub-watersheds: Toro Creek Watershed, Whale Rock Reservoir Watershed, Old Creek Watershed
Project Cost: $35,000,000
Est. Match Funds: 100%
Funding Sources: USDA Water & Waste Disposal Grant and Loan Program, Cayucos Rate Payers

Project Status:	**Ready for Implementation**
Permitting Status:	Land Use Permit hearing scheduled June 22nd, 2017
CEQA/NEPA Status:	CEQA complete 4/20/2017
Project Start Date:	07/2017
Project End Date:	01/2019

Project Benefits

1. **Increases water conservation or brings new water supplies for beneficial use:**

One of the key goals of the CSWP's Program Charter is to enhance the community's long-term water supply reliability. The CSWP WRRF will provide the foundation for advanced water treatment for potable reuse either through surface water augmentation of Whale Rock Reservoir or direct potable reuse within the community. Additionally, the constructed WRRF will produce recycled water that meets Title 22 unrestricted tertiary irrigation standards that will be available to offset potable water use and provide water for agricultural demands.

2. **Improves existing water supplies:**

As previously stated, the CSWP will provide recycled water that meets Title 22 unrestricted irrigation standards that will supply local agricultural users with an additional sustainable supply, offsetting the potable water demand from groundwater wells. Additionally, future opportunities to produce potable water will provide a sustainable supply to rural and urban water users and support future potable water demands in the region.

3. **Improves water system operational efficiencies or water supply reliability:**

The CSWP will ultimately provide a reliable water supply for the community of Cayucos. The project integrated drought-preparedness into its long-term vision by selecting a membrane bioreactor (MBR) and UV disinfection with the understanding that these technologies will prepare the District for future potable reuse regulations. The addition of advanced water treatment processes to produce purified water for potable reuse will improve water supply reliability and resilience for the community of Cayucos and the region.

4. **Improves water quality, matching water quality to the type of water use:**

A primary goal of the CSWP's Program Charter is to design a robust treatment process that minimizes compliance risk and meets full regulatory compliance. Currently, the existing treatment facility operates under a 301(h) modified discharge permit for discharge to the ocean outfall that does not meet secondary treatment standards. The CSWP constructed WRRF will produce high quality effluent with a commitment to produce tertiary disinfected effluent, significantly exceeding water quality required for ocean discharge while simultaneously providing treated recycled for Title 22 approved unrestricted agricultural irrigation recycled water reuse.

5. **Increases environmental benefits:**

The project results in the creation of an agricultural conservation easement on lands owned by the District. The project reduces the risks of spills of untreated wastewater to the environment by shortening

the length between the collections system and the treatment plant.

6. **Improves groundwater management:**

The CSWP included a hydrogeologic evaluation that examined three groundwater basins within the District's service area for opportunities for indirect potable reuse via groundwater recharge. The evaluation concluded that there may be future opportunities for groundwater storage in the Old Creek Valley basin that may improve local groundwater supply and quality and additionally offset potable water demand on the basin. By making high quality effluent for agricultural use, the project will provide return flows to the groundwater basin as well as the potential to reduce groundwater pumping and reliance via direct offsets. The District will continue to evaluate opportunities for groundwater management through the course of the project.

7. **Improves flood management:**

The CSWP evaluated all flood risks due to the construction of the WRRF and through the EIR process determined that the construction of the WRRF at the proposed site would not result in exposure of people or structures to flooding in the case of a 100-year storm event or result in a substantial increase in the flood level. Additional site planning and flood mitigation is incorporated into the WRRF design to address low impact development and flood control. Several low impact development concepts including the addition of bioswales and a catchment basins have been incorporated into the project design to promote groundwater recharge, reduce runoff and natural treatment.

8. **Improves water resources management and outreach:**

The District developed goals and objectives for the CSWP based on conversations with District staff, the District's Board of Directors, stakeholders including community members, representatives from agricultural and environmental groups, as well as guidance from existing recycled water programs in the region. This coordination culminated in a Program Charter which defined the vision, goals and objectives of the CSWP. The District has continued to engage the community through town hall meetings and public outreach events and has received strong support from the community for its project. The District maintains an up to date project information section on its web page and will continue with direct targeted mailings to its community.

9. **Addresses water-related needs of a disadvantaged community or tribal lands:**

The CSWP has involved community stakeholders including the Northern Chumash Tribal Council from the early stages of the project planning. The District worked closely with local tribal representatives on minimizing potential impacts from the construction of pipelines to the WRRF site. All work that may impact cultural resources will be monitored by an archaeologist and Native American representatives.

10. Addresses climate change concerns:

The CSWP, through the production of recycled water for non-potable and potable reuse would reduce energy demand in the region through water conservation. Additionally, through the construction of the new WRRF, the expected increased efficiency and technological upgrades compared to the existing facilities would reduce energy demands and further offset greenhouse gas emissions generated by the proposed project. The CSWP also evaluated opportunities for renewable energy onsite to offset energy demands and reduce greenhouse gas emissions.

11. If this project will involve partnerships with other agencies or a neighboring IRWM region, please explain:

To provide either direct or indirect potable reuse of the treated effluent, the District will work with the three local water purveyors and the Whale Rock Commission. Since the regulations governing indirect and direct potable reuse have not been developed, the timing of developing and implementing those water reuse partnerships has not been determined.

12. If the project/program is not implemented, what impacts, if any, might occur:

If the CSWP is not implemented, the District will need to invest significant resources into developing a combined facility with Morro Bay. The combined facility will not provide recycled water for beneficial use to the Cayucos area, will not meet the needs for long term water supply reliability, and will be a significant additional expense to the community of Cayucos.

13. Other comments:

None.

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Project Number: **2017 NT-02**
Project Title: **Morro Valley Water Reliability Plan**
Project Sponsor: **Central Coast Infrastructure Investment Forum**

Project Sponsor Contact

Contact Name: Rick Sauerwein, Executive Director
Address: 1301 Little Morro Creek Rd, Morro Bay, CA 93442
Email: rsauerwein@ci2f.org
Phone: (805) 766-4352

Project Description

Develop conceptual model and action plan to improve water availability, reliability & conservation. Define existing water uses and demands and evaluate future needs.

Need for Project

The Drought of 2010-16 left more than 150 residences without a reliable potable water supply and severely impacted the ability to irrigate valuable crop and rangeland in Morro Valley. The City of Morro Bay's recent decision to abandon their effort to recycle wastewater at a site within Morro Valley has left residents, growers and ranchers without any hope of meeting their immediate or future water needs.

Project Information

Sub-Region: **North Coast (NT)**
Latitude, Longitude: ---
Land Use: Agricultural
Watershed: Cayucos/Whale Rock Area/ Morro Creek Sub-Watershed
Project Cost: $100,000 for Phase 1 conceptual plan
Est. Match Funds: 25% In-Kind Services; 75% State
Funding Sources: Prop 1 Planning Grant

Project Status: **Phase 1-Conceptual & Phase 2-Planning Phase**
Permitting Status: None required at this stage
CEQA/NEPA Status: None required at this stage
Project Start Date: August 2017
Project End Date: September 2018

Project Benefits

1. **Increases water conservation or brings new water supplies for beneficial use:**

Yes, the principal purpose of the Plan is to identify the most cost effective alternative source or sources of water supply to augment existing dependency on inadequate coastal groundwater supplies. This will be done through an integrated, "One-Water" approach that contemplates, ground, surface, storm, waste and grey water as potential supply alternatives and considers all aspects of the water cycle and developing climatological trends.

2. **Improves existing water supplies:**

Yes, a portion of the plan will address methods of improving the efficiency of existing water uses and raising awareness of effective conservation practices.

3. **Improves water system operational efficiencies or water supply reliability:**

Yes, in addition to the efficiencies noted in the previous comment, the plan will also identify potential alternative crops and ranching practices that could be implemented to reduce water demands.

4. **Improves water quality**, **matching water quality to the type of water use:**

Yes, the plan will also consider the feasibility of treating known nitrate contamination as part of alternative supply development.

5. **Increases environmental benefits:**

Yes, besides the many environmental benefits already mentioned, the plan will also study means of using storm water runoff, and agricultural tail-waters to build constructed wetlands to improve water quality.

6. **Improves groundwater management:**

Yes, the plan will utilize an extensive library of existing groundwater studies and seek to identify remaining data gaps that need to be filled as existing water users work toward a complete understanding of how to manage our coastal water resources sustainably.

7. **Improves flood management:**

Yes, the plan will assess the feasibility of creating a distributed network of storm water retention/detention ponds to control growing runoff intensities from increasingly severe climatological extremes to restore area creeks to their formerly perennial nature.

8. **Improves water resources management and outreach:**

Yes, the plan will be developed collaboratively with residents, growers, ranchers, affected conservation advocates and resources sponsors.

9. **Addresses water-related needs of a disadvantaged community or tribal lands:**

Yes, the disadvantaged areas within the watershed will benefit from remediation of nitrate contamination, improved availability & higher quality irrigation supplies, a more reliable & higher quality potable supply, improved flood control and restoration of perennial stream flow.

10. **Addresses climate change concerns:**

The project may assist the City of Morro Bay in identifying a logical site for future relocation of their existing desalination site which has been targeted by the Coastal Commission for relocation due to future coastal inundation due to predicted sea-level rise.

11. **If this project will involve partnerships with other agencies or a neighboring IRWM region, please explain:**

Yes. The Plan will evaluate the feasibility of obtaining annual surplus water allocations from Whale Rock, Atascadero Mutual Water Co, State Water Project and Morro Mutual Water Co. in exchange for a new Contingency Brackish Water desalination augmentation supply during emergency drought declarations. It will also negotiate for reclaimed water supply sources as they are developed by the Cayucos Sanitation District and the City of Morro Bay. The Plan will be coordinated with the Coastal San Luis Resource Conservation District, SLO Farm Bureau, California Avocado Commission, Cal Poly Irrigation Training & Research Center, County of SLO, Public Works Water Resources Division, Regional Water Quality Control Board, State Water Resources Control Board and the California Coastal Commission.

12. **If the project/program is not implemented, what impacts, if any, might occur:**

Over 150 residences will be forced to truck increasingly scarce water from distant alternative sources at great expense to meet essential potable water demands and valuable avocado, strawberry and fresh vegetable crops as well as cattle production, will be curtailed.

13. **Other comments:**

The plan will be developed by a multidisciplinary team of professionals, assisted by Cal Poly interns performing research, data collection and management. Planning will build long-term relationships and lay the foundation for the watershed's future Sustainable Groundwater Management Plan.

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Project Number: **2017 NT-03**
Project Title: **3rd Street Chromium Removal**
Project Sponsor: **Los Osos Community Services District**

Project Sponsor Contact

Contact Name: Renee Osborne, General Manager
Address: 2122 9th St, Los Osos, CA 93402
Email: rosborne@losososcsd.org
Phone: (805) 528-9370

Project Description

The District would like to explore the idea of a filtration or ion exchange systems to remove the chromium from the 3rd Street Well.

Need for Project

This would be an extra added source of water the District currently owns that is not in use. Sampling has been done over the years on this well with levels ranging from 11.2 to a current read of 7.3.

Project Information

Sub-Region: **North Coast (NT)**
Latitude, Longitude: ---
Land Use: Agricultural, protected area
Watershed: Los Osos
Project Cost: ---
Est. Match Funds: 25%
Funding Sources: Los Osos CSD

Project Status: **Preliminary**
Permitting Status: Unsecured
CEQA/NEPA Status: required
Project Start Date: No date set
Project End Date: No date set

Project Benefits

1. **Increases water conservation or brings new water supplies for beneficial use:**

The 3rd Street Well would bring additional Water supplies that were at one time used. Due to the chromium find, the Well was discontinued.

2. **Improves existing water supplies:**

N/A

3. **Improves water system operational efficiencies or water supply reliability:**

The use of the 3rd street Well would ensure water supply reliability. Currently the Well is not being used.

4. **Improves water quality, matching water quality to the type of water use:**

With a filtration/ION system in place, water from the 3rd street Well would improve the water quality to the type of water being used. The Well could be used to blend down current chlorides and nitrate levels from other Wells.

5. **Increases environmental benefits:**

N/A

6. **Improves groundwater management:**

N/A

7. **Improves flood management:**

N/A

8. **Improves water resources management and outreach:**

N/A

9. **Addresses water-related needs of a disadvantaged community or tribal lands:**

N/A

10. **Addresses climate change concerns:**

N/A

11. If this project will involve partnerships with other agencies or a neighboring IRWM region, please explain:

N/A

12. If the project/program is not implemented, what impacts, if any, might occur:

The District has a limited amount of water and shares a basin with three other water purveyors. The use of the 3rd street well would give the residents of Los Osos CSD better quality of water.

13. Other comments:

None.

San Luis Obispo County Region
Integrated Regional Water Management (IRWM)
slocountywater.org/irwm

Project Number: **2017 NT-04**
Project Title: **Baywood Park 2nd Street Stormwater Management**
Project Sponsor: **Morro Bay National Estuary Program (MBNEP)**

Project Sponsor Contact

Contact Name: Lexie Bell, Executive Director
Address: 601 Embarcadero, Suite 11, Morro Bay, CA 93442
Email: lbell@mbnep.org
Phone: (805) 772-3834

Project Description

The project will retrofit two blocks of 2nd Street in Baywood Park to provide green infrastructure to decrease existing and anticipated impacts water resource issues due to climate change, decrease neighborhood flooding and improve the water quality entering the Morro Bay Estuary.

Need for Project

Currently stormwater runoff from the street and adjacent properties flows along the curb/gutter and into inlets that discharge without treatment or peak/volume control via a beach outfall into the estuary. The discharge location is used regularly for passive and active recreational activities and is also an area of relatively poor water quality (compared to the rest of the bay).

Project Information

Sub-Region: **North Coast (NT)**
Latitude, Longitude: ---
Land Use: Commercial/Residential
Watershed: Morro Bay
Project Cost: $1.5 million
Est. Match Funds: 25%
Funding Sources: Proposed Prop. 1 Implementation grant funding; County match contribution; Morro Bay National Estuary Program; and, identification of additional match partners.

Project Status: **Conceptual- Concept design scope in development with the Central Coast Low Impact Development Initiative.**
Permitting Status: None required at this time.
CEQA/NEPA Status: None required at this time.
Project Start Date: If awarded Prop. 1 Implementation funding, design in 2018 and construction in 2019.
Project End Date: 2nd Qtr. 2021

Project Benefits

1. **Increases water conservation or brings new water supplies for beneficial use:**

Yes: 1) By increasing rainwater infiltration, the project will help address salt water intrusion, which is a serious threat to the existing groundwater supply, and 2) stormwater runoff will be captured and used to irrigate new plants and trees in right-of-way thus decreasing use of groundwater supply for irrigation.

2. **Improves existing water supplies:**

Yes. As noted above, infiltration of stormwater will help to address salt water intrusion into the existing groundwater supply. Additionally, infiltrated water will augment the groundwater supply.

3. **Improves water system operational efficiencies or water supply reliability:**

Yes. By damping the effect of stormwater runoff volumes and flows, the existing conveyance capacity (e.g., outfall) will remain functional and increased pipe sizing will not be required for long-term stormwater system operation.

4. **Improves water quality**, **matching water quality to the type of water use:**

Yes. By mimicking the natural watershed physical, chemical and biological processes, the quality of water infiltrated into the groundwater and discharging to the Estuary will align with pre-urban hydrologic and quality conditions.

5. **Increases environmental benefits:**

The existing street right-of-way width is very wide and provides ample space for significant environmental improvements regarding stormwater runoff management as well as other community ancillary natural resource benefits (e.g., improved air quality, reduced carbon footprint). Stormwater capture and re-use is desired by this community to support irrigation of the green infrastructure and enhance the community's sustainable water resource management goals. With a very active and involved community with interest in water resource protection, including the estuary and groundwater, it is anticipated that there will be a long-term commitment to project stewardship.

6. **Improves groundwater management:**

Yes. The project supports objectives to mimic pre-urban hydrologic processes including infiltration into the groundwater aquifer. Salt water intrusion, as mentioned, is a serious issue in this area.

7. Improves flood management:

Yes. The low lying nature of 2nd Street and lack of adequate stormwater management facilities creates flooding issues during even moderate storm events. The current stormwater conveyance system does not include a mechanism to dampen the effects of existing or, anticipated, stormwater flows. Rather, runoff hits impervious surfaces and all runoff stays on the surface until routed directly to the estuary. The project will capture stormwater for infiltration, slowing the flow and decreasing the amount of surface runoff.

8. Improves water resources management and outreach:

The Los Osos-Baywood Park community is managed through a Community Services District. Issues related to wastewater and water supply management have, and will continue to be, major topics of concern for this area. The project will promote and implement management of stormwater in a manner more consistent with a "One Water" or integrated water resource management perspective.

9. Addresses water-related needs of a disadvantaged community or tribal lands:

While the project is not within a DAC designated area, three DAC types are within Los Osos / Baywood and these areas will be served by the project.

10. Addresses climate change concerns:

Low lying coastal areas such as Baywood Park are directly at risk from impacts associated with climate change. The project area is already prone to adverse impacts due to stormwater runoff and climate change is anticipated to exacerbate this problem due to projection of short-duration, but high intensity rain events that will cause flooding. The project will increase resiliency to stormwater impacts by dampening the effects of stormwater volumes and intensities.

11. If this project will involve partnerships with other agencies or a neighboring IRWM region, please explain:

Anticipated partners include Cal Poly, SLO County, Los Osos CSD, Los Osos Basin Management Committee, the Low Impact Development Initiative.

12. If the project/program is not implemented, what impacts, if any, might occur:

1. Increased public use of the beach and neighborhood has been noted and failure to address water quality issues will result in increased risk of exposure to urban runoff pollutants in this community.
2. Continued discharge of untreated runoff to the Estuary and associated habitat and aquatic life impacts.
3. Water conservation will likely continue in this community and will result in less available water for

irrigation, which will result in the continued decline of vegetation and trees in this neighborhood, which is already observable due to recent drought conditions.

13. Other comments:

The Los Osos community has not received/implemented project(s) to address sustainable stormwater management, yet the need is significant. The 2nd Street project would support comprehensive water resource objectives and provide social, economic and natural resource benefits to the community and environment.

San Luis Obispo County Region
Integrated Regional Water Management (IRWM)
slocountywater.org/irwm

Project Number: **2017 NT-05**
Project Title: **Camp San Luis Obispo Chorro Creek Habitat Management Program**
Project Sponsor: **California Army National Guard**

Project Sponsor Contact

Contact Name: Paige Farrell, Natural Resources Coordinator
Address: Camp San Luis Obispo, 10 Sonoma Ave, Bldg 1300, San Luis Obispo, CA 93405
Email: paige.k.farrell.nfg@mail.mil
Phone: (805) 788-6931

Project Description

Program consists of multiple elements to protect, restore, and enhance Chorro Creek waterways and habitat on Camp San Luis Obispo to include; development of a steelhead management plan and agency consultation, Chorro Creek habitat assessment, installation of riparian and wetland fencing, invasive species removal, fish barrier removal, creek bank stabilization, grazing management, off-creek water development, stream course rehabilitation, and steelhead/CRLF monitoring.

Need for Project

To conserve the Chorro Creek watershed and ecosystem within Camp San Luis Obispo thus enhancing conservation efforts occurring throughout the Morro Bay Watershed.

Project Information

Sub-Region: **North Coast (NT)**
Latitude, Longitude: ---
Land Use: Military
Watershed: Morro Bay
Project Cost: $500,000
Est. Match Funds: unknown
Funding Sources: National Guard Bureau

Project Status: **Various: several projects ready for implementation, several projects conceptual or in design phase.**
Permitting Status: No permits acquired to date.
CEQA/NEPA Status: CEQA not yet initiated
Project Start Date: September 2017
Project End Date: unknown

Project Benefits

1. **Increases water conservation or brings new water supplies for beneficial use:**

N/A

2. **Improves existing water supplies:**

N/A

3. **Improves water system operational efficiencies or water supply reliability:**

N/A

4. **Improves water quality, matching water quality to the type of water use:**

Yes, reduces sediment and pollution discharge.

5. **Increases environmental benefits:**

Yes, habitat/ecosystem restoration, threatened and endangered species management and conservation, invasive species control.

6. **Improves groundwater management:**

N/A

7. **Improves flood management:**

Yes, stream course rehabilitation and riparian/waterway restoration and enhancement.

8. **Improves water resources management and outreach:**

Yes, promotes coordination and collaboration with other local environmental organizations with interest in the Morro Bay watershed.

9. **Addresses water-related needs of a disadvantaged community or tribal lands:**

N/A

10. **Addresses climate change concerns:**

N/A

11. If this project will involve partnerships with other agencies or a neighboring IRWM region, please explain:

Yes, project promotes collaboration with local watershed agencies/organizations.

12. If the project/program is not implemented, what impacts, if any, might occur:

Continued degradation of watershed via sediment and contaminants, lack of recovery of threatened and endangered species, degradation of habitat and watershed function due to invasive species.

13. Other comments:

None.

San Luis Obispo County Region
Integrated Regional Water Management (IRWM)
slocountywater.org/irwm

Project Number: **2017 NT-06**
Project Title: **WWTP Nutrient Removal and Efficiency Improvements**
Project Sponsor: **Cambria Community Services District**

Project Sponsor Contact

Contact Name: Robert Gresens, District Engineer
Address: P.O. Box 65, Cambria CA 93428
Email: bgresens@cambriacsd.org
Phone: 805-927-6223

Project Description

This project will modify the existing wastewater treatment plant to complete a modified Ludzack-Ettinger process for nitrate removal within an activated sludge process. Efficiency improvements will include automating dissolved oxygen control, upgrades to aeration blowers, new sludge digesters, flow equalization, electrical improvements, and associated instrumentation controls.

Need for Project

The existing wastewater treatment plant was last upgraded in 1991, and was not designed to denitrify (remove nitrates). Removing nitrates and improving plant efficiencies are needed to support the CCSD's indirect potable reuse project, while also improving groundwater quality at the plant's effluent percolation basins.

Project Information

Sub-Region: **North Coast (NT)**
Latitude, Longitude: ---
Land Use: Public Facility
Watershed: Lower San Simeon Creek
Project Cost: $3,000,000
Est. Match Funds: 50% from low interest state revolving fund loan.
Funding Sources: Proposed low interest state revolving fund loan for matching fund.

Project Status: **Design**
Permitting Status: Project should be in conformance with existing permits issued for the wastewater treatment plant.
CEQA/NEPA Status: A mitigated negative declaration is estimated as the level of CEQA compliance that will be required. The CEQA process would take approximately 6 months to complete following grant award.
Project Start Date: FY 2018/2019, subject to grant award.
Project End Date: July 2020

Project Benefits

1. **Increases water conservation or brings new water supplies for beneficial use:**

Yes, the project improves water quality for the CCSD's existing indirect potable water reuse project (aka Sustainable Water Facility).

2. **Improves existing water supplies:**

Yes, the project improves water quality for the CCSD's existing indirect potable water reuse project (aka Sustainable Water Facility).

3. **Improves water system operational efficiencies or water supply reliability:**

Yes, the project improves water quality for the CCSD's existing indirect potable water reuse project (aka Sustainable Water Facility).

4. **Improves water quality, matching water quality to the type of water use:**

Yes, the project improves water quality by removing nitrates prior to being percolated into the lower San Simeon Creek aquifer.

5. **Increases environmental benefits:**

Yes, by improving groundwater quality and benefiting an existing potable reuse facility.

6. **Improves groundwater management:**

Yes, by improving groundwater quality and benefiting an existing potable reuse facility.

7. **Improves flood management:**

No.

8. **Improves water resources management and outreach:**

Yes.

9. **Addresses water-related needs of a disadvantaged community or tribal lands:**

No.

10. Addresses climate change concerns:

Yes.

11. If this project will involve partnerships with other agencies or a neighboring IRWM region, please explain:

No.

12. If the project/program is not implemented, what impacts, if any, might occur:

The plant will continue to operate in its current state, which is not energy efficient. Long term operational reliability will suffer. Nitrates will not be as effectively removed as would be possible with the proposed project.

13. Other comments:

None.

San Luis Obispo County Region
Integrated Regional Water Management (IRWM)
slocountywater.org/irwm

Project Number: **2017 NT-07**
Project Title: **Los Osos Creek Groundwater Replenishment and Recharge Project**
Project Sponsor: **Los Osos Basin Management Committee**

Project Sponsor Contact

Contact Name: Rob Miller, Interim Executive Director
Address: 612 Clarion Court, San Luis Obispo, Ca 93401
Email: robm@wallacegroup.us
Phone: (805) 544-4011 x133

Project Description

The Los Osos Creek Groundwater Replenishment and Recharge Project will utilize recycled water from the Los Osos Wastewater Reclamation Facility to recharge the lower aquifer of the Los Osos Groundwater Basin. The project is intended to reduce the potential for continued seawater intrusion into the lower aquifer while maximizing basin yield.

Need for Project

The Los Osos groundwater basin is currently experiencing seawater intrusion into its lower aquifer, and the seawater front is advancing at the rapid rate of approximately 200 feet per year. Groundwater is the sole source of domestic supply for the community. Enhancing recharge is a key element in the community's efforts to halt seawater intrusion, and the upper reaches of Los Osos Creek provide a unique opportunity to directly recharge the compromised lower aquifer.

Project Information

Sub-Region: **North Coast (NT)**
Latitude, Longitude: 35.3072° N, 120.8384° W
Land Use: Urban and agricultural uses
Watershed: Los Osos
Project Cost: $6,200,000 through implementation phase
$200,000 planning phase
Est. Match Funds: 25%
Funding Sources: Los Osos Basin Management Committee participants

Project Status: **Planning Phase**
Permitting Status: Unsecured
CEQA/NEPA Status: Environmental studies initiated, CEQA process not initiated
Project Start Date: January 1, 2018 (planning phase)
Project End Date: January 1, 2019 (completion of planning phase)
July, 2022 (completion of implementation phase)

Project Benefits

1. **Increases water conservation or brings new water supplies for beneficial use:**

Based on completed studies, the discharge of recycled water into Los Osos Creek will increase basin yield in proportion to the volume of water discharged to the creek. This proportion, which can be viewed as the project's recapture rate for invested recycled water, could be as high as 60% to 90% during drought cycles with appropriately-sited downgradient wells. This approach provides a new supply of domestic water.

2. **Improves existing water supplies:**

Seawater intrusion into the lower aquifer is occurring at the rate of advance of 200 feet per year. Supplemental recharge directly to the lower aquifer will raise groundwater levels on the east side of the lower aquifer and reduce seawater intrusion potential for existing water supplies.

3. **Increases environmental benefits:**

The presence of additional water resources in Los Osos Creek will benefit Federal Southern steelhead (Oncorhynchus mykiss irideus) and other riparian species.

4. **Improves groundwater management:**

The primary sources of recharge to the lower aquifer of the Los Osos groundwater basin include leakage from the upper aquifer and direct recharge from Los Osos Creek. During dry periods and drought cycles, Los Osos Creek remains dry, and therefore the discharge of recycled water during dry weather would provide a critical source of additional recharge. In the event effluent flows to the primary existing disposal site need to be interrupted (Broderson Effluent Disposal Site), a permitted creek discharge will provide an alternative means of dry weather disposal.

5. **Improves flood management:**

None.

6. **Improves water resources management and outreach:**

None.

7. **Addresses water-related needs of a disadvantaged community or tribal lands:**

Los Osos is not listed as a disadvantaged community.

8. **Addresses climate change concerns:**

In recently completed studies, basin yields were found to decrease in proportion to reduced precipitation. In addition, rising sea levels are expected to further decrease yield and the potential for seawater intrusion. The proposed recharge project will provide another crucial tool to enhance yield during the dry season.

9. **If this project will involve partnerships with other agencies or a neighboring IRWM region, please explain:**

The Basin Management Committee is comprised of multiple partners including San Luis Obispo County, the Los Osos Community Service District, Golden State Water Company, and S&T Mutual Water Company. The Morro Bay National Estuary Program has also contributed to studies for this project.

10. **If the project/program is not implemented, what impacts, if any, might occur:**

Without the proposed recharge project, recharge to the lower aquifer will be more difficult to control and enhance, which could hamper long term efforts to halt the advance of seawater intrusion.

11. **Other comments:**

None.

San Luis Obispo County Region
Integrated Regional Water Management (IRWM)
slocountywater.org/irwm

Project Title: **2017 RG-01**
Project Title: **Expanded Key Percolation Zone Study**
Project Sponsor: **Upper Salinas Las Tablas Resource Conservation District**

Project Sponsor Contact

Contact Name: Devin Best, Executive Director, Upper Salinas – Las Tablas RCD
Address: 65 S. Main Street, Suite 107
Email: devin@us-ltrcd.org
Phone: (805) 434-0396 ex 3196

Project Description

Build upon the methodology used in the Expand the Key Percolation Zone Study for Santa Rosa and San Luis Obispo Creeks to develop mapping of key percolation zones in San Luis Obispo County.

Need for Project

Groundwater recharge is a high priority for conservation of limited water resources in San Luis Obispo County. Identifying key areas to percolate groundwater will enable stakeholders interested in groundwater management and water supply recovery to effectively and appropriately develop groundwater recharge projects that a mutually beneficial at a watershed scale.

Project Information

Sub-Region: **Regional**
Latitude, Longitude: ---
Land Use: All land use categories are applicable.
Watershed: Relevant Watershed(s) and Sub-Watershed(s) based on http://slowatershedproject.org
Project Cost: $52,760
Est. Match Funds: 35%
Funding Sources: Wildlife Conservation Board, City of Paso Robles, City of Atascadero, Templeton Community Service District, San Miguel Community Service District.

Project Status: **Planning Phase**
Permitting Status: Planning project
CEQA/NEPA Status: Exempt
Project Start Date: 11/1/2017
Project End Date: 7/30/2018

Project Benefits

1. **Increases water conservation or brings new water supplies for beneficial use:**

The proposed project will increase groundwater storage capabilities and stormwater management by identifying high priority key percolation zones in which surface water can be percolated into groundwater.

2. **Improves existing water supplies:**

Since the many sources of water supply are derived from groundwater resources, the proposed project will improve the quantity and quality by providing a greater recharge to groundwater sources.

3. **Improves water system operational efficiencies or water supply reliability:**

Providing resource managers the ability to identify opportunities to infiltrate groundwater will improve operational efficiencies by reducing maintaining groundwater levels. The ability to manage water resources will be an important measure for GSA and GSP development, as well as other municipalities struggling to provide water during periods of drought.

4. **Improves water quality**, **matching water quality to the type of water use:**

Key percolation zones can provide a mechanism to improve water quality for groundwater conditions. In order to improve water quality conditions, the first step is to identify the issue and then develop methods for treating. Information and mapping from the Key Percolation Zone Study will provide resource managers the ability to develop projects to improving groundwater conditions.

5. **Increases environmental benefits:**

The Key Percolation Zone Study is an important step to link recharge areas with environmental benefits such as enhanced streamflow, wildlife habitat, endangered species restoration, and recharge area protection while providing a pathway to expand public awareness and stewardship. The results of the initial study for Santa Rosa Creek and San Luis Obispo Creek/Edna Valley have led to development of grant applications focused on enhancing instream flow for steelhead in Santa Rosa Creek. The project will also improve the ecology of the watershed and provide habitat and suitable conditions for other threatened and endangered species, while increasing land use management and public outreach. The proposed project for a regional Key Percolation Zone Study will also improve overall environmental benefits through similar mechanisms.

6. **Improves groundwater management:**

The primary goal of the Key Percolation Zone Study is to provide resource managers and other stakeholders the ability to recharge groundwater basins. Identifying the extent and amount of potential

recharge will be necessary to improve groundwater management.

7. **Improves flood management:**

The project will assist in development of project that can directly improve flood management by locating the high priority percolation areas. These areas will be essential for reducing flood risks to communities by infiltrating stormwater into groundwater basins.

8. **Improves water resources management and outreach:**

The project will increase public awareness by providing maps of high percolation zones that cross property boundaries, leading to more holistic management of water resources and aligning management goals. Currently, landowners in Santa Rosa Creek and Cambria Community Service District, via USLTRCD, are collaborating on projects to improve water management for municipal, irrigated agriculture, and ecosystem function. The project will hold stakeholder meetings to draw more support and collaboration from the public, resource professionals, and other water resource managers.

9. **Addresses water-related needs of a disadvantaged community or tribal lands:**

The project covers the remaining watersheds (23 out of 25) in SLO County, which encompasses several DACs. DACs in SLO County will benefit by having water-related information to manage water resources and improve groundwater conditions, stormwater management, and ecosystem health.

10. **Addresses climate change concerns:**

Increased intensity and less frequent storm events are potential outcomes for the Central Coast due to climate change. Projects that recharge groundwater basins will greatly improve water management and reduce flood risk. Identifying and mapping key percolation zones in watersheds in SLO County will be the first step to preparing for climate change impacts as they develop.

11. **If this project will involve partnerships with other agencies or a neighboring IRWM region, please explain:**

There is a high potential to increase partnerships with other counties, neighboring IRWM regions, or other resource professionals. Santa Cruz RCD and Upper Salinas – Las Tablas RCD are both developing similar programs for landowners and resource managers. The program could be extended to Santa Barbara and Monterey counties since the methods being used are replicable.

12. If the project/program is not implemented, what impacts, if any, might occur:

None; planning project.

13. Other comments:

None.

San Luis Obispo County Region
Integrated Regional Water Management (IRWM)
slocountywater.org/irwm

Project Number: **2017 SC-01**
Project Title: **One Water SLO**
Project Sponsor: **City of San Luis Obispo**

Project Sponsor Contact

Contact Name: David Hix, Deputy Director – Wastewater
Address: 879 Morro Street, San Luis Obispo, CA 93401
Email: dhix@slocity.org
Phone: (805) 781-7039

Project Description

Maximizing the use of recycled water is a central focus in the City's One Water Strategy (One Water SLO). This project will maximize the use of recycled water by increasing storage and improving water quality, position the City to host pilot projects related to potable reuse, and provide a location for public education and engagement through an on-site water resource learning center.

Need for Project

As recycled water production is maximized, insufficient storage and treatment may limit opportunities to optimize water resources across the region. Visitors and residents of SLO County currently have limited opportunities to engage in and understand the complexity of local water resources, and there exists a need for greater public engagement and outreach to better connect the community with local water supplies.

Project Information

Sub-Region: **Project is located in the South County, however it provides Regional benefits.**
Latitude, Longitude: ---
Land Use: Urban
Watershed: San Luis Obispo Creek
Sub-Watersheds: Laguna Lake, Prefumo Canyon, See Canyon Considering the City's existing resources include Salinas Reservoir, Lake Nacimiento, and Whale Rock Reservoir, which are each in separate watersheds (South Salinas River-Santa Margarita Area Watershed, Nacimiento River Watershed, and Cayucos Creek-Whale Rock Area Watershed, respectively), this project has the potential for broad regional watershed benefits.
Project Cost: $8,000,000
Est. Match Funds: >95%

Funding Sources:	City of San Luis Obispo Wastewater Enterprise Fund – existing; City of San Luis Obispo Water Enterprise Fund – existing; Clean Water State Revolving Fund low-interest loan – application complete; Integrated Regional Water Management DAC Involvement grant – proposal submitted; Integrated Regional Water Management Implementation grant – proposed; California Energy Commission Interest Rate 1% Loan Financing for Energy Efficiency & Energy Generation Projects – proposed
Project Status:	**Design Phase**
Permitting Status:	Permitting underway, expected in September 2018
CEQA/NEPA Status:	CEQA+ completed, EIR adopted in August 2016
Project Start Date:	Planning initiated in January 2014, construction start date expected in Fall 2018
Project End Date:	2022

Project Benefits

1. Increases water conservation or brings new water supplies for beneficial use:

This project will provide approximately 1.7 million gallons (about 5.2 acre-feet) of additional recycled water storage facilities to allow the City to maximize recycled water production for landscape irrigation, construction use, and agricultural use, including delivery outside of City limits for regional benefits. Maximization of this non-potable resource will alleviate demands on potable water supplies such as Salinas Reservoir, Whale Rock Reservoir, Nacimiento Reservoir, and local groundwater resources.

Treatment enhancements through the installation of UV as the primary disinfectant, MBR membrane treatment, denitrification, and other upgrades will improve water quality by reducing total dissolved solids and nutrients in the recycled water. UV disinfection will improve water quality for basin recharge projects, environmental discharges to San Luis Obispo Creek, and delivery to customers while positioning the City to take advantage of potable reuse opportunities in the future. Such a facility would add a drought-resistant water supply to the City's and the region's water portfolio, which could provide opportunities to benefit communities throughout San Luis Obispo County. Planning for potable reuse will include partnerships with local, regional, state, and federal organizations to conduct pilot studies and research on potable reuse.

Construction of the One Water Learning Center will facilitate and encourage conservation and protection of water resources by providing education on responsible use and protection of water resources.

2. Improves existing water supplies:

This project will maximize the City's ability to produce and deliver disinfected tertiary recycled water for beneficial use. This will allow the City to deliver more recycled water to its customers through its existing recycled water infrastructure, therefore increasing accessibility to water and increasing supply sustainability, with the potential to deliver to new recycled water customers. With the implementation of potable reuse in the future, supply sustainability will be increased through development of a drought-resistant water supply.

Additionally, the upgrades from conventional activated sludge treatment and chlorine disinfection to membrane bioreactor (MBR) treatment and UV disinfection will result in better quality recycled water. UV disinfection eliminates disinfection by-products in the treated water and reduces total dissolved solids. UV processes will increase the quality of recycled water produced at the Water Resource Recovery Facility (WRRF), including the recycled water that is released in San Luis Obispo Creek. Potable reuse would include advanced treatment of the recycled water, resulting in even greater improvement of the water quality. Higher quality water will be of key importance to manage salts and nutrients in the San Luis Obispo Groundwater Basin and support basin sustainability as required by the Sustainable Groundwater Management Act.

3. Improves water system operational efficiencies or water supply reliability:

Post-WRRF Project, all flows, including peak wet weather flows, will be treated to Title 22 disinfected tertiary standards. The WRRF experiences a large peak flow during wet weather months, and a drop in flows during the dry season when Cal Poly is out of session. This swing will be better managed with the new design configuration and expanded equalization to be implemented as part of the WRRF Project. Specific components that will help with operational efficiencies throughout the year include the MBR and UV disinfection. Additionally, expanded on-site recycled water storage, will provide more flexibility in production and delivery of recycled water.

With the increased ability to produce drought-resistant recycled water, the City will be improving its water supply reliability for current non-potable uses and for future potable uses. With the implementation of future potable reuse, supply reliability will be increased even more by providing drinking water supply that depends less directly on rainfall.

4. Improves water quality, matching water quality to the type of water use:

As previously described, this project will improve the water quality of recycled water produced at the WRRF. Currently, this recycled water is delivered to customers in the City and released in San Luis Obispo Creek. Increasing water quality by eliminating disinfection by-products, nutrient removal, and reducing total dissolved solids through UV disinfection will provide a cleaner water source for customers and will provide better habitat for the flora and fauna of the creek. Potable reuse will include advanced treatment of the recycled water, resulting in additional improvement of water quality.

The One Water Learning Center provides opportunities to educate and engage visitors and residents on how their actions can reduce non-point source contaminants to the region's water supplies and aquatic environment. An educational center will also provide a location for schools to visit for activities and field trips focusing on local water quality and sustainability.

5. Increases environmental benefits:

Through the One Water Learning Center, the public (residents and visitors alike) will be welcome to learn about One Water SLO, resource recovery at the WRRF, the water cycle in San Luis Obispo County, groundwater management, potable reuse, and much more. Education through the One Water Learning Center will inform the public on how to help maintain healthy watersheds within our communities and will help reduce the potential for non-point source pollution in our watersheds through localized education.

As previously described, the MBR and UV systems will produce cleaner recycled water for all beneficial uses including enhancing the aquatic habitat in San Luis Obispo Creek. Better water quality also has benefits for the San Luis Obispo Valley Groundwater Basin, as less salts and nutrients will have the opportunity to percolate into the basin. One Water SLO is sustainable and restorative in nature because it

leads to the reduction in imported water through recycled water use and future potable reuse. Future groundwater recharge opportunities could also aid in restoration of groundwater basin levels.

6. **Improves groundwater management:**

Efforts related to One Water SLO will improve the recycled water quality and decrease the amount of salts and nutrients entering the ground (through stream flow) with MBR and UV process treatment upgrades. This will be of key importance for managing salts and nutrients in the San Luis Obispo Valley Groundwater Basin and will support basin sustainability as required by the Sustainable Groundwater Management Act. The increase of recycled storage will result in more recycled water availability for current groundwater dependent areas outside the City. One possible destination for this increased recycled water is to the Edna Valley, part of the SGMA medium priority-designated San Luis Obispo Valley Groundwater Basin. Future potable reuse would also result in groundwater augmentation if indirect potable reuse is the chosen potable reuse path.

7. **Improves flood management:**

The WRRF Project includes low impact development (LID) in permeable pavement to reduce runoff and retain storm water on site, and bioretention areas/planters to help manage stormwater runoff by capturing, treating, and infiltrating it. The site is also being designed to significantly enhance on-site flood management for this critical facility through robust flood protection for treatment facilities in the event of a large flood (e.g. 100-year storm).

8. **Improves water resources management and outreach:**

As previously described, at the One Water Learning Center the public will learn about resource recovery, the water cycle, and much more. This will greatly improve public outreach and education about water resources management in San Luis Obispo. Cal Poly and Cuesta College regularly organize tours for their engineering, environmental science, and microbiology students at the WRRF as well. The addition of the One Water Learning Center will increase the number of and enhance the experience of these and other WRRF tours. Lastly, with greater recycled water production capability, the potential for collaboration over recycled water management will occur between environmental interests, urban users, and potential agricultural users.

9. **Addresses water-related needs of a disadvantaged community or tribal lands:**

The WRRF Project addresses the education, wastewater treatment, water quality, water quantity, and flood control needs of the City of San Luis Obispo (a Disadvantaged Community Place). A future potable reuse project will further the response to these needs.

10. **Addresses climate change concerns:**

This project addresses climate change concerns by increasing the quantity of drought resilient water and

by positioning the City to pursue potable reuse. By maximizing recycled water, the City is able to avoid the need to pursue new water sources, which have high energy costs embedded in development. This project will reduce the amount of chemicals used to treat water at the WRRF with replacement of the current chlorine disinfection system with the new UV disinfection system. This is beneficial for all users of the higher quality water, and significantly reduces that amount of salts introduced into the local groundwater basin and the transportation of chemicals to the site. Processes are also being chosen and the site designed to reduce energy consumption where possible, optimize energy use in existing and new systems, and increase production of renewable energy on site.

11. **If this project will involve partnerships with other agencies or a neighboring IRWM region, please explain:**

Yes. Current and in-process partnerships are listed below:

Cal Poly, San Luis Obispo (across departments): collaboration on educational elements, research center, operator training, and potable reuse piloting
Science Discovery: collaboration on educational elements, building on the current educational programs Science Discovery has at the WRRF
The Nature Conservancy (TNC): collaboration on educational elements Equipment Suppliers: collaboration on potable reuse piloting, process optimization, education, implementation and validation of new technologies.
Water Environment & Research Foundation (WE&RF): collaboration and funding for potable reuse research
PG&E: collaboration on energy initiatives to reduce energy demand and/or increase energy efficiency
Waste Connections: collaboration on energy initiatives
Morro Coast Audubon Society: collaboration on educational elements for the One Water Learning Center
Water Education Foundation (WEF): collaboration on educational elements, and research opportunities to explore advanced treatment technologies for potable reuse, potential funding partner
Cuesta Community College: collaboration on educational elements
National Audubon Society: collaboration on educational elements
SLO Chamber of Commerce: collaboration on community outreach for One Water SLO
Arts Obispo: collaboration on educational/art elements on site
CalTrout: collaboration on educational elements for the One Water Learning Center
Central Coast Salmon Enhancement: collaboration on educational elements for the One Water Learning Center
SLO Children's Museum: collaboration on educational elements for the One Water Learning Center
University of Arizona: collaboration on educational elements and research center
National Water Research Institute (NWRI): collaboration on potable reuse research, potential funding partner
State Water Resources Control Board (SWRCB)/ Division of Drinking Water (DDW): Water Recycling State Revolving Funding, collaboration on potable reuse piloting and regulations

Private partnerships: collaboration on energy initiatives
Local breweries, wineries, haulers, etc.: collaboration on energy initiatives, including potential anaerobic waste digestion expansion and cogeneration

12. If the project/program is not implemented, what impacts, if any, might occur:

If the identified elements of One Water SLO and the WRRF Project are not implemented, the City and the region will not enjoy the social, environmental, and economic benefits described previously. The City's recycled water production capabilities will be limited and remain fairly inflexible. There will be a delay in the leveraging power of recycled water and how it affects regional potable water use, and the water quality for all beneficial uses will remain the same as current. No public water education center will be built. The City will not be able to meet its discharge limits for nutrients and disinfection by-products. Sustainable basin management strategies for the San Luis Obispo Groundwater Basin will be significantly limited, including reduced options for sustainable salt and nutrient management in the basin.

13. Other comments:

None.

San Luis Obispo County Region
Integrated Regional Water Management (IRWM)
slocountywater.org/irwm

Project Number: **2017 SC-02**
Project Title: **Meadow Park Stormwater Capture and Use Project**
Project Sponsor: **City of San Luis Obispo**

Project Sponsor Contact

Contact Name: Ralph Frederick Otte III, Biologist
Address: 990 Palm St., San Luis Obispo, CA 93401
Email: fotte@slocity.org
Phone: (805) 431-0111

Project Description

Meadow Park capture and use underground reservoir will divert existing high stormwater runoff flows from the Broad Street neighborhood that currently enter Meadow and San Luis Obispo Creeks. Captured stormwater will be used for park irrigation and decrease use of the City's water supply.

Need for Project

High urban stormwater runoff volumes, rates and pollutants cause hydromodification impacts to Meadow and San Luis Obispo Creeks. Any desired improvements to Meadow Creek habitat and function are extremely limited due to these high runoff volumes and rates. Sources of water for irrigation of the Park are limited due to water conservation efforts enacted due to drought conditions.

Project Information

Sub-Region: **South County (SC)**
Latitude, Longitude: ---
Land Use: The project would be constructed at Meadow Park. The surrounding contributing land uses include residential/commercial/light industrial.
Watershed: San Luis Obispo Creek
Project Cost: $2 million
Est. Match Funds: 15%-20% match requirement based on DAC determination. City General Fund.
Funding Sources: City of San Luis General Fund. City and partner match contributions.

Project Status: **Conceptual**
Permitting Status: None required at this time.
CEQA/NEPA Status: None required at this time.
Project Start Date: If Prop. 1 Implementation funding is obtained, project design would occur in 2018-2019 and project construction 2019-2020.
Project End Date: 4th Qtr. 2020

Project Benefits

1. **Increases water conservation or brings new water supplies for beneficial use:**

Yes. Use of stormwater to support plants, trees and other vegetation in the City is crucial for the long-term existence of urban vegetation. The underground reservoir will capture and store peak flows that currently damage creek habitat and aquatic life and instead, the runoff will be used for irrigation for the Park. Irrigation will support vegetation and tree health while also promoting nature infiltration of rain/stormwater. This "new" water supply will reduce use of groundwater that is used as the City's drinking water supply.

2. **Improves existing water supplies:**

Yes. The project will increase the supply of water used for irrigation within the City limits.

3. **Improves water system operational efficiencies or water supply reliability:**

Yes. The existing stormwater conveyance system includes Meadow Creek and is an outdated method to manage stormwater due to the adverse habitat, water quality and aquatic life impacts. Improvement of the existing stormwater management system would be to remove/decrease volumes/flow rates to the creek. Additionally, capture of stormwater for irrigation use is an emerging strategy to address water supply shortages due to climate change and drought conditions.

4. **Improves water quality**, **matching water quality to the type of water use:**

Yes. High volumes and rates of flow are contribute to hydromodification of the creek system and are considered adverse impacts to creek water quality. Reduction in volumes and peak flows will better align with natural hydrologic processes.

5. **Increases environmental benefits:**

Yes. The City's direction is to manage their water resources with a "One Water" perspective to ensure long-term and sustainable water resources for the community and the environment. Environmental benefits associated with this project include reduced demand on groundwater resources; decreased hydromodification impacts to Meadow and San Luis Obispo Creeks; public education related to water resource management/stewardship; and, protection/restoration of aquatic species.

6. **Improves groundwater management:**

Yes. Decreasing the demand on groundwater supplies is one strategy within a groundwater management plan. The project will offset demand on the groundwater resource.

7. Improves flood management:

Yes. Current routing/conveyance of stormwater runoff from the contributing Broad Street neighborhood causes a significant capacity strain on the downstream existing infrastructure including pipes, culverts, and ditches. The project will improve the overall system operation by decreasing the capacity demand on the existing system. The improved stormwater management will also create opportunities for successful in-stream enhancement/restoration efforts.

8. Improves water resources management and outreach:

The project will represent one the first City projects to actively use stormwater as a resource to meet other water resource needs while providing ancillary community and natural resource benefits. Project success will increase the opportunity, interest and support for other similar integrated water resource management projects. The project will support objectives stated by stakeholders concerned with environmental projects, groundwater management and "One Water" proponents.

9. Addresses water-related needs of a disadvantaged community or tribal lands:

Yes. As notes previously, the entire City of San Luis Obispo has some type of DAC designation. Meadow Park, Meadow Creek and San Luis Obispo Creeks are valuable community assets that serve the entire population. Wise and sustainable management of water resources, including stormwater, will benefits the DAC population.

10. Addresses climate change concerns:

Drought conditions associated with climate change have already impacted the City by causing great stress on the existing vegetation and trees and limiting the City's ability to allocate valuable water resources toward irrigation. This project represents a proactive way to capture and use stormwater to meet the current and future needs of the community including urban greening objectives.

11. If this project will involve partnerships with other agencies or a neighboring IRWM region, please explain:

There will likely be multiple partners involved in this project including the IRWM, Cal Poly, City of San Luis, the Low Impact Development Initiative, and Central Coast Regional Water Board.

12. If the project/program is not implemented, what impacts, if any, might occur:

Continued water quality and hydromodification impacts to Meadow and San Luis Obispo Creeks. Continued strain on the existing stormwater conveyance system (pipes, culverts, etc.). Decreased ability to keep Meadow Park irrigated to support plants and trees. Inability to conduct creek restoration efforts due to inability to address causal factors.

13. Other comments:

This project fits within water resource objectives set by the IRWM. Additionally, as a potential Prop. 1 project proposal, the project would likely be highly competitive due to the “capture and use” nature of the project prioritized by the State Water Resources Control Board.

San Luis Obispo County Region
Integrated Regional Water Management (IRWM)
slocountywater.org/irwm

Project Number: **2017 SC-03**
Project Title: **Lower San Luis Obispo Creek Fish Passage Improvement and Seawater Intrusion Barrier Planning Study**
Project Sponsor: **San Miguelito Mutual Water Company**

Project Sponsor Contact

Contact Name: Rick Koon, General Manager
Address: 1561 Sparrow Street, Avila Beach CA 93424
Email: rkoon@smmwc.com
Phone: (805) 595-2348

Project Description

The Lower San Luis Obispo Creek Fish Passage Improvement and Seawater Intrusion Barrier Planning Study consists of studying potential modifications, repair and maintenance of the Marre weir to further improve fish passage while maintain protection of freshwater habitat and groundwater from sea water intrusion.

Need for Project

The Marre Weir was constructed in 1969 to protect groundwater supplies from salt water intrusion. The Marre Weir is a sheet pile dam in San Luis Obispo Creek located above the golf course in Avila Beach. The weir was modified in 2006 via the addition of a low flow notch (by the San Luis Obispo County Land Conservancy) while leaving the existing fish ladder in place. The project will study alternatives to modify or replace or maintain the existing weir.

Project Information

Sub-Region: **South County (SC)**
Latitude, Longitude: ---
Land Use: Rural
Watershed: San Luis Obispo Creek Watershed
Project Cost: $125,000
Est. Match Funds: Unknown
Funding Sources: Unknown

Project Status: **Conceptual Phase**
Permitting Status: Not Started
CEQA/NEPA Status: Not Started
Project Start Date: 06/2018
Project End Date: 06/2020

Project Benefits

1. **Increases water conservation or brings new water supplies for beneficial use:**

The Marre Weir is essential to protecting riparian habitat of the lower sections of San Luis Obispo creek and the surrounding groundwater basin from sea water intrusion particularly with the future potential for sea level rise. The planning study would not result in any new water supply, but the project would protect existing groundwater and surface water supplies.

2. **Improves existing water supplies:**

The project would not significantly modify existing water supplies, but does preserve existing supplies that are being conjunctively used with surface water, imported water and groundwater supplies all being used to meet regional water demands.

3. **Improves water system operational efficiencies or water supply reliability:**

The Marre Weir is essential to protecting the lower riparian sections of San Luis Obispo creek from sea water intrusion particularly with the future potential for sea level rise. Maintaining the existing functionality is essential to maintaining regional water supply reliability.

4. **Improves water quality**, **matching water quality to the type of water use:**

The top of this weir notch is located about one foot above the current high tide line provide for both surface water storage and groundwater recharge.

5. **Increases environmental benefits:**

San Luis Obispo Creek is the largest regionally significant resource for the Southern Central California Coast Steelhead which is considered threatened under the endangered species act. The weir was constructed in the 1960's with a fish ladder retrofitted in the 1980's and a notch added in 2006.

Modification, repair and maintenance of the weir would allow improved migration access for steelhead trout. It would prevent fish from accumulating at the base of the weir where they are vulnerable to poaching and predation.

Steelhead trout passage into the San Luis Obispo Creek watershed will be improved. Better access to spawning areas should increase spawning success and result in increases in the numbers of these fish.

6. **Improves groundwater management:**

The Marre Weir is essential to protecting the groundwater basin from sea water intrusion particularly with the potential for sea level rise.

7. **Improves flood management:**

The Marre Weir serves minor flood benefits by reducing the potential for storm surge impacts upstream of the structure.

8. **Improves water resources management and outreach:**

The planning study is intended to bring local stakeholders together to determine how to best improve fish passage while maintaining the protective benefits to groundwater and freshwater resources in the future.

9. **Addresses water-related needs of a disadvantaged community or tribal lands:**

The project would not impact known tribal or disadvantaged community resources.

10. **Addresses climate change concerns:**

The planning study will evaluate the probable impacts of climate change particularly sea level rise on the weir.

11. **If this project will involve partnerships with other agencies or a neighboring IRWM region, please explain:**

Upstream stake holders, the Land Conservancy, Central Coast Salmon enhancement and others.

12. **If the project/program is not implemented, what impacts, if any, might occur:**

Eventually the weir will require major repair or modification to preserve the riparian habitat, maintain the groundwater and surface water supply needs of the region. The planning study will analyze and outline the future efforts required to enhance fish passage and maintain the environmental benefits.

13. **Other comments:**

None.

San Luis Obispo County Region
Integrated Regional Water Management (IRWM)
slocountywater.org/irwm

Project Number: **2017 SC-04**
Project Title: **Avila Valley Regional Recycled Water Program**
Project Sponsor: **San Miguelito Mutual Water Company (SMMWC) and Avila Beach Community Services District (District)**

Project Sponsor Contact

Contact Name: Rick Koon, General Manager
Address: 1561 Sparrow Street, San Luis Obispo, CA 93405
Email: rkoon@smmwc.com
Phone: (805) 595-2348

Project Description

The Avila Valley Regional Recycled Water Program (Program) will implement a recycled water program within the Avila Region to promote interagency coordination in addressing water supply challenges via a regional wastewater collection, treatment, and recycled water distribution system.

Need for Project

The region receives surface water from the State Water Project and Lopez Lake, and has limited groundwater production under the direct influence of San Luis Obispo Creek. Limited capacity treatment facilities currently serve a minority of the region as a majority of the region is served by septic systems.

Project Information

Sub-Region: **South County (SC)**
Latitude, Longitude: ---
Land Use: Urban and rural
Watershed: San Luis Obispo Creek Watershed/Sea Canyon Sub-Watershed and Coastal Irish Hills Watershed/Pecho Creek Sub-Watershed
Project Cost: $25,000,000
Est. Match Funds: 25%
Funding Sources: State Water Resources Control Board (Water Recycling Funding Program, Clean Water State Revolving Fund), Local Cost Sharing, IRWM Funds, Rate Payers

Project Status: **Conceptual Phase**
Permitting Status: Not applicable at this phase
CEQA/NEPA Status: Not applicable at this phase
Project Start Date: April 2018
Project End Date: October 2025

Project Benefits

1. **Increases water conservation or brings new water supplies for beneficial use:**

The Program will benefit from unutilized treated wastewater to provide a sustainable resource of recycled water for the region. Recycled water can be used for irrigation or groundwater recharge to create a potable water offset that reduces the reliance on imported State Water Project water, Lopez water, and groundwater. The additional supply will allow the Region to optimize their State Water allocations each year.

2. **Improves existing water supplies:**

The Program will increase the potable water supply by creating a new, drought-resistant water supply source from tertiary treated wastewater. Implementing recycled water at the regional level optimizes water supply management for the District and SMMWC. Potable water previously dedicated for irrigation can now be replaced by recycled water, providing greater water supply sustainability and the ability to maximize their State Water allocations.

3. **Improves water system operational efficiencies or water supply reliability:**

By creating a regional solution, the Program provides opportunities to optimize operations and create regional water supply reliability. The regional approach allows for recycled water conveyance piping to be optimized as the entire region's wastewater can be utilized to meet demands rather than two individual, smaller (and possibly redundant) systems.

There is currently no recycled water usage within the Avila Region. Under the Program, drought-tolerant recycled water could replace the use of potable water for irrigation to produce a more reliable water supply. By replacing water previously dedicated for irrigation, the water purveyors can optimize the use of local surface water storage. The Program also enhances inter-agency collaboration between the District and SMMWC to best serve the Avila Region. Under this program, recycled water can be optimized to serve end users regardless of service area.

4. **Improves water quality**, **matching water quality to the type of water use:**

The Program will improve the quality of wastewater effluent. Currently, neither the District's nor SMMWC's water reclamation facilities (WRFs) produce effluent meeting tertiary standards. As part of this Program, disinfected tertiary recycled water would be produced and put towards beneficial use. This would replace the lower quality effluent generated by each facility.

5. **Increases environmental benefits:**

The Program will offset impacts of sea level rise, creating a more resilient supply. Currently the Marre

Weir protects much of the Avila Subbasin from seawater intrusion. The Program will improve the water quality of all wastewater discharged to the environment by combining and upgrading current facilities to produce tertiary effluent. It will also reduce the amount of wastewater effluent discharged to ocean, providing benefit to the surrounding ecosystem. The Program will be supplemented with public education about the environmental benefits and safety of recycled water to gain stakeholder support.

6. **Improves groundwater management:**

Implementing the Program will promote inter-agency coordination for protecting the groundwater basin. Under this Program, less groundwater pumping will be required due to the offset of potable water used for meeting irrigation demands. This provides the opportunity to manage local groundwater basins. The Program also allows for the implementation of indirect potable reuse in the future, which would augment and protect the groundwater basin.

7. **Improves flood management:**

The Program will implement a new regional WRF that will reduce flood risk at the current WRFs. Currently, the District's WRF lies within the FEMA 100-year flood plain. Under this program, a regional facility located outside of the flood plain and coastal zone would collect and treat all wastewater flows. This WRF will be designed to handle the storm flows and resulting I&I.

8. **Improves water resources management and outreach:**

Implementation of the Program will result in increased collaboration between municipal, rural, commercial, recreational, agricultural, and environmental stakeholders in the Avila Region. Public outreach and education will be a key component of successfully implementing the Program, as recycled water has never been utilized in the region. This step will be important for producing public support for the Program.

9. **Addresses water-related needs of a disadvantaged community or tribal lands:**

The Avila Region is not classified as a disadvantaged community by DWR but does contain significant areas of cultural resources that will need to be considered in the planning and design phase.

10. **Addresses climate change concerns:**

The Program will help mitigate the impacts of sea level rise by providing increased supply and a source of water for a salt water intrusion buffer. The implementation of a new regional WRF will result in lower energy consumption than the two existing smaller WRFs. It also reduces the amount of forcemain required for wastewater conveyance, resulting in additional energy savings.

11. **If this project will involve partnerships with other agencies or a neighboring IRWM region,**

please explain:

The Project involves a collaboration of the District, SMMWC, and other stakeholders to work together to collectively meet the water and wastewater goals for the Avila Region. By working together, the region will be able to better serve the local communities and maximize recycled water production and conveyance.

12. If the project/program is not implemented, what impacts, if any, might occur:

If the project is not implemented, the District and SMMWC will continue to operate their WRFs without any recycled water generation. Without the recycled water to offset potable uses, their water supplies will remain susceptible to drought conditions. The aging infrastructure at the existing WRFs will leave both the District and SMMWC more vulnerable.

13. Other comments:

None.

San Luis Obispo County Region
Integrated Regional Water Management (IRWM)
slocountywater.org/irwm

Project Number: **2017 SC-05**
Project Title: **See Canyon Habitat Enhancement Project**
Project Sponsor: **Central Coast Salmon Enhancement**

Project Sponsor Contact

Contact Name: Steph Wald, Watershed Projects Manager
Address: 229 Stanley Ave. Arroyo Grande, CA 93445
Email: steph@centralcoastsalmon.com
Phone: (805) 471-3789

Project Description

The project will generate 65% plans and permits for two fish passage barriers in the watershed (steelhead and lamprey), identify stream flow augmentation and groundwater storage recommendations, conduct a roads sediment analysis and generate concept plans to reduce sediment yield from rural roads in the watershed, analyze existing instream habitat complexity and flood plain restoration potential and provide concept plan to enhance, reviews opportunity for voluntary instream flow transfers, and involve the watershed's residents in vetting project concepts to develop federal cost-share funds (EQIP) for implementation.

Need for Project

See Canyon/San Miguelito Creek has not been the recipient of a focused watershed protection and enhancement planning effort to date. Water resource and habitat protection is needed as development occurs that is protective of limited ground and surface water supplies.

Project Information

Sub-Region: **South County (SC)**
Latitude, Longitude: ---
Land Use: Rural, agricultural and open space
Watershed: See Canyon/San Miguelito and San Luis Obispo
Project Cost: $325,000
Est. Match Funds: 50%
Funding Sources: Prop 1 Watershed Restoration Grant Program, CDFW Fisheries Restoration Grant Program, EQIP, Prop 1 California Coastal Conservancy

Project Status: **Conceptual**
Permitting Status: N/A
CEQA/NEPA Status: N/A
Project Start Date: as soon as funding secured
Project End Date: 2 years after initiation

Project Benefits

1. **Increases water conservation or brings new water supplies for beneficial use:**

The project identifies locations for BMP installation to improve groundwater infiltration, rainwater catchment and stream flow augmentation.

2. **Improves existing water supplies:**

Road sediment analysis improves water quality, rain catchment and infiltration improves water supply management and sustainability for ag and rural uses.

3. **Improves water system operational efficiencies or water supply reliability:**

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4. **Improves water quality**, **matching water quality to the type of water use:**

Non-point sources contaminant reduction occurs through road sediment analysis.

5. **Increases environmental benefits:**

Project restores anadromous fish passage for two barriers, involves watershed residents in developing plans and priorities to better ensure buy-in for implementation phases, improves stream flow with catchment to groundwater storage, explores potential for voluntary water transactions to support instream flows.

6. **Improves groundwater management:**

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7. **Improves flood management:**

Reviews potential floodplain restoration locations and provides concept level plans.

8. **Improves water resources management and outreach:**

Brings restoration and water resource enhancement of watershed to residents and landowners through collaborative and consensus building process to engage and educate while providing opportunity to generate in-kind and cash matches for implementation.

9. Addresses water-related needs of a disadvantaged community or tribal lands:

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10. Addresses climate change concerns:

Project would use Water-Energy Toolkit for Sustainable Development to provide climate change resources to watershed landowners.

11. If this project will involve partnerships with other agencies or a neighboring IRWM region, please explain:

Partner with the Coastal San Luis RCD to leverage their existing program offerings to make available to landowners to implement BMPs, and permit streamlining potential through Partners in Restoration and Livestock and Land Programs. The City of San Luis Natural Resources Program is interested in protecting steelhead resources of this productive sub-watershed and would participate as a stakeholder. Many landowners were involved in the existing watershed group (see comments below) and would presumably become involved once a funding source is procured to continue a watershed planning process.

12. If the project/program is not implemented, what impacts, if any, might occur:

As the See Canyon and Davis Canyon watersheds continue to develop, the existing water resources and ecosystem attributes may continue to decline without adequate landowner outreach and technical support for water quality/quantity protection.

13. Other comments:

CCSE was asked to initiate a watershed group in See Canyon in 2005 by several watershed landowners when they became concerned that groundwater overdrafting might negatively impacting base flow and dewatering the creek. CCSE has conducted well attended watershed forums for landowners and residents in the intervening years. A steering committee of landowners led a nascent watershed planning effort with CCSE providing administrative support funded through small contributions from supportive landowners. Funding this proposal would allow for continuing the process and to produce a plan that would serve as a blueprint for watershed management.

San Luis Obispo County Region
Integrated Regional Water Management (IRWM)
slocountywater.org/irwm

Project Number: **2017 SC-06**
Project Title: **Arroyo Grande Creek Floodplain Habitat Restoration**
Project Sponsor: **Coastal San Luis RCD and Central Coast Salmon Enhancement**

Project Sponsor Contact

Contact Name: Steph Wald & Linda Chipping, CCSE Watershed Projects Manager & CSLRCD Board Director
Address: 229 Stanley Ave., Arroyo Grande, CA 93420
Email: lindachipping@yahoo.com and steph@centralcoastsalmon.com
Phone: Steph 471-3789; Linda 528-0914

Project Description

Conduct feasibility and design to restore flood plain habitat on Arroyo Grande Creek. This site could also be a groundwater recharge site within the larger recharge picture.

Need for Project

Arroyo Grande Creek flood plain habitat has been severely reduced. Sediment retention within the flood plain is needed to attenuate sediment deposition in the flood control reach (Zone 1/1A).

Project Information

Sub-Region: **South County (SC)**
Latitude, Longitude: ---
Land Use: Currently zoned residential multi-family; is 18+ acres in a flood hazard zone
Watershed: Arroyo Grande Creek mainstem
Project Cost: unknown
Est. Match Funds: Unknown at this time
Funding Sources: IRWM, Prop 1 Watershed Restoration Grant Program, Prop 1 WCB Stream Flow Enhancement Program, CDFW Fisheries Restoration Grant Program, Prop 1 Urban Rivers, Prop 1 Wetlands Restoration for Greenhouse Gas Reduction Grant Program, Prop 1 Coastal Conservancy, DWR Flood Corridor Program, WCB California Riparian Habitat Conservation Program and various WCB land acquisition programs

Project Status: **Conceptual**
Permitting Status: N/A
CEQA/NEPA Status: N/A
Project Start Date: ---
Project End Date: ---

Project Benefits

1. **Increases water conservation or brings new water supplies for beneficial use:**

Stormwater management, groundwater storage (percolation), potentially water recycling. Increases base flow to creek as water is slowly released from flood plain back to creek via recharge/percolation. Could potentially have a deep recharge component as well pending studies now occurring to discharge recycled water into the aquifer.

2. **Improves existing water supplies:**

Improves ag water sustainability and flows in lower Arroyo Grande Creek.

3. **Improves water system operational efficiencies or water supply reliability:**

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4. **Improves water quality, matching water quality to the type of water use:**

Would reduce sediment input into the Arroyo Grande Creek Flood Control Channel.

5. **Increases environmental benefits:**

Addresses stream flow augmentation in the lower Arroyo Grande Creek which would benefit riparian species such as Steelhead trout and California Red-legged frog. The restored flood plain could also have a pedestrian raised path for passive recreation and public education.

6. **Improves groundwater management:**

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7. **Improves flood management:**

As a floodplain restoration project, the peak flow to the flood channel could be reduced and protect downstream infrastructure.

8. **Improves water resources management and outreach:**

Project would be vetted through Arroyo Grande Creek MOU group for the highest level of buy-in and collaboration as it would benefit urban, ag, rural and environmental interests and be one of the first and only flood plain restoration projects in the watershed.

9. **Addresses water-related needs of a disadvantaged community or tribal lands:**

Oceano as a disadvantaged community would benefit from integrating flood control and education into a project within the community.

10. **Addresses climate change concerns:**

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11. **If this project will involve partnerships with other agencies or a neighboring IRWM region, please explain:**

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12. **If the project/program is not implemented, what impacts, if any, might occur:**

Flood control channel will continue to face intense management to prepare flood fights in high flows. Steelhead migration corridor will not see any improvement in base flow protection in low flows.

13. **Other comments:**
