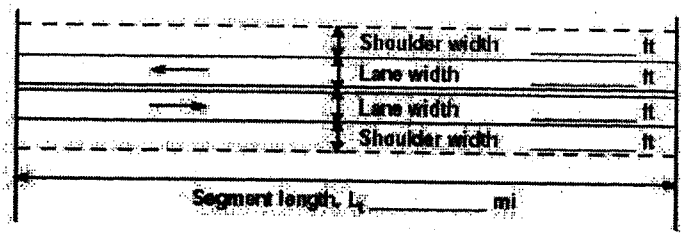
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

Analyst Information		Site Information	
Analyst	CDR	Highway	CR-335
Agency or Company	KHA	From/To	CR-312 to New Castle I-70 Int
Date Performed	8/4/2006	Jurisdiction	Garfield County
Analysis Time Period	Existing	Analysis Year	2006

Input Data



Class I highway ■ Class II highway

Terrain ■ Level ■ Rolling

Two-way hourly volume	402 veh/h
Directional split	60 / 40
Peak-hour factor, PHF	0.88
No-passing zone	100
% Trucks and Buses , P_T	5 %
% Recreational vehicles, P_R	5%
Access points/ mi	10

Operational Analysis

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.966
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	473
v_p * highest directional split proportion[2] (pc/h)	284

Free-Flow Speed from Field Measurement			Estimated Free-Flow Speed	
			Base free-flow speed, $BFFS_{FM}$	45.0 mi/h
Field Measured speed, S_{FM}	mi/h		Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	4.2 mi/h
Observed volume, V_f	veh/h		Adj. for access points, f_A (Exhibit 20-6)	2.5 mi/h
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	38.3	mi/h	Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	38.3 mi/h

Adj. for no-passing zones, f_{np} (mi/h) (Exhibit 20-11)	4.3
Average travel speed, ATS (mi/h) $ATS=FFS-0.00776v_p-f_{np}$	30.3

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.995
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	459
v_p * highest directional split proportion[2] (pc/h)	275
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	33.2
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	21.8
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	55.0

Level of Service and Other Performance Measures

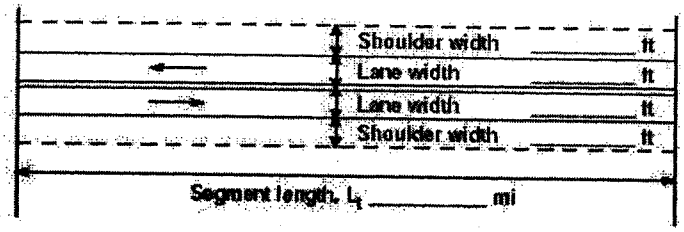
Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	B
Volume to capacity ratio v/c $v/c=V_p/3{,}200$	0.15
Peak 15-min veh-miles of travel, VMT_{15} (veh- mi) $VMT_{15}=0.25L_t(V/PHF)$	114
	402

Peak-hour vehicle-miles of travel, VMT_{60} (veh- mi) $VMT_{60}=V*L_t$	
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	3.8

1. If v_p >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split v_p>= 1,700 pc/h, terminated anlysis-the LOS is F.

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	CDR	Highway	CR-335
Agency or Company	KHA	From/To	CR-312 to New Castle I-70 Int
Date Performed	8/4/2006	Jurisdiction	Garfield County
Analysis Time Period	Background	Analysis Year	2008



Class I highway ■ Class II highway

Terrain ■ Level ■ Rolling

Two-way hourly volume	426 veh/h
Directional split	60 / 40
Peak-hour factor, PHF	0.88
No-passing zone	100
% Trucks and Buses , P_T	5 %
% Recreational vehicles, P_R	5%
Access points/ mi	10

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.966
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	501
v_p * highest directional split proportion[2] (pc/h)	301

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	mi/h	Base free-flow speed, $BFFS_{FM}$	45.0 mi/h
Observed volume, V_f	veh/h	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	4.2 mi/h
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	38.3 mi/h	Adj. for access points, f_A (Exhibit 20-6)	2.5 mi/h
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	38.3 mi/h

Adj. for no-passing zones, f_{np} (mi/h) (Exhibit 20-11)	4.2
Average travel speed, ATS (mi/h) $ATS=FFS-0.00776v_p-f_{np}$	30.2

Percent Time-Spent-Following	
Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.995
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	487
v_p * highest directional split proportion[2] (pc/h)	292
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	34.8
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	21.5
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	56.4

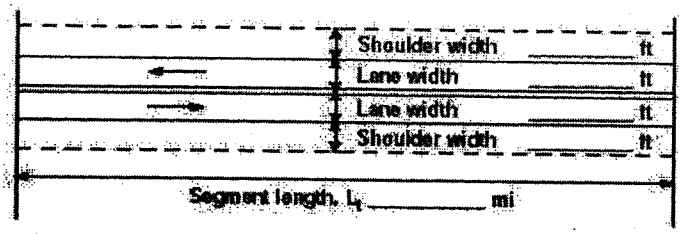
Level of Service and Other Performance Measures	
Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio v/c $v/c=V_p/3{,}200$	0.16
Peak 15-min veh-miles of travel, VMT_{15} (veh- mi) $VMT_{15}=0.25L_t(V/PHF)$	121
	426

Peak-hour vehicle-miles of travel, VMT_{60} (veh- mi) $VMT_{60}=V*L_t$	
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	4.0
1. If v_p >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split v_p>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	CDR	Highway	CR-335
Agency or Company	KHA	From/To	CR-312 to New Castle I-70 Int
Date Performed	8/4/2006	Jurisdiction	Garfield County
Analysis Time Period	Background plus Project	Analysis Year	2008

Flow Inputs



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	558 veh/h
Directional split	60 / 40
Peak-hour factor, PHF	0.88
No-passing zone	100
% Trucks and Buses , P_T	5 %
% Recreational vehicles, P_R	5%
Access points/ mi	10

Operational Analysis

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.990
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	640
v_p * highest directional split proportion[2] (pc/h)	384

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
		Base free-flow speed, $BFFS_{FM}$	45.0 mi/h
Field Measured speed, S_{FM}	mi/h	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	4.2 mi/h
Observed volume, V_f	veh/h	Adj. for access points, f_A (Exhibit 20-6)	2.5 mi/h
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	38.3 mi/h	Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	38.3 mi/h

Adj. for no-passing zones, f_{np} (mi/h) (Exhibit 20-11)	3.7
Average travel speed, ATS (mi/h) $ATS=FFS-0.00776v_p-f_{np}$	29.6

Peak Hour Analysis

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.995
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	637
v_p * highest directional split proportion[2] (pc/h)	382
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	42.9
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	19.5
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	62.4

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio v/c $v/c=V_p/3{,}200$	0.20
Peak 15-min veh-miles of travel, VMT_{15} (veh- mi) $VMT_{15}=0.25L_t(V/PHF)$	159
	558

Peak-hour vehicle-miles of travel, VMT_{60} (veh- mi) $VMT_{60}=V*L_t$	
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	5.4

Notes:

1. If v_p >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split v_p>= 1,700 pc/h, terminated anlysis-the LOS is F.

APPENDIX G

Project Traffic Volume Increase Calculation

Project Traffic Volume Increase Calculation

WB I-70 Ramp at Newcastle Interchange

	Off Ramp		On Ramp	
	AM Peak	**PM Peak**	**AM Peak**	**PM Peak**
2006 Existing Volume	86	527	58	159
Project Traffic Volume	16	52	7	4
Percent Increase	18.6%	9.9%	12.1%	2.5%

EB I-70 Ramp at Newcastle Interchange

	Off Ramp		On Ramp	
	AM Peak	**PM Peak**	**AM Peak**	**PM Peak**
2006 Existing Volume	115	102	559	192
Project Traffic Volume	2	8	46	31
Percent Increase	1.7%	7.8%	8.2%	16.1%

ATTACHMENT 2

Site Location Application and Report Addendum

Prepared By Martin / Martin Consulting Engineers

ATTACHMENT 2

Incorporates All Prior Changes

Addendum To
SITE LOCATION APPLICATION AND ENGINEERING REPORT

WASTEWATER TREATMENT FACILITY
THE RAPIDS ON THE COLORADO
Garfield County Colorado

Dated December, 2003

PROJECT NO. 16454.C.01

PREPARED BY:

MARTIN/MARTIN, INC.
12499 WEST COLFAX AVENUE
PO BOX 151500
LAKEWOOD, COLORADO 80215
(303) 431-6100

PREPARED FOR:

THE RAPIDS DEVELOPMENT CORPORATION
2102 WEST ARAPAHOE DRIVE
LITTLETON, COLORADO 80120-3008

PRINCIPAL-IN-CHARGE: ROGER SMADES, P.E.

Revised: May 31, 2005

ADDENDUM TO SITE LOCATION APPLICATION AND ENGINEERING REPORT DATED DECEMBER, 2003

TABLE OF CONTENTS

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
Water Quality Control Division
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

APPLICATION FOR SITE APPROVAL FOR CONSTRUCTION OF: A NEW DOMESTIC WASTEWATER TREATMENT PLANT

APPLICANT: Rapids Development Corporation (RDC) PHONE: (303) 798-1640

ADDRESS: 2102 West Arapahoe Drive

CITY, STATE, ZIP: Littleton, Colorado, 80120-3008

Consulting Engineer: Martin / Martin Inc. Phone: (303) 431-6100

Address: 12499 West Colfax Avenue, PO Box 151500

City, State, Zip: Lakewood, Colorado, 80215

A. Summary of information regarding new wastewater treatment plant:

1. Proposed Location (Legal Description): SW 1/4, -- 1/4, Section 4

Township 6S Range: 91 W County: Garfield

2. Type and capacity of treatment facility proposed: Major Processes Used Sequencing Batch Reactor (SBR), Disinfection

Hydraulic: 45,000 gal/day Organic: 87 lbs. BOD_5/day

Present PE: 0 Design PE: 400-450 % Domestic: 100 % Industrial 0

3. Location of Facility:
Attach a map of the area, which includes the following:
(a) 5-mile radius: all sewage treatment plants, lift stations, and domestic water supply intakes.
(b) 1-mile radius: habitable buildings, location of public and private potable water wells, and an approximate indication of the topography.
** - Maps are included in Appendix D of this report.

4. Effluent disposal: Surface discharge to watercourse (name) Colorado River

Subsurface disposal: -- Land Application: -- Evaporation: --

Other (list): _____

State water quality classification of receiving watercourse(s): Aq Life Cold 1, Recreation 1a, Water Supply, Agriculture

Proposed Effluent Limitations developed in conjunction with the Water Quality Control Division:

BOD_5 _____ mg/l SS _____ mg/l Fecal Coliform _____ /100 ml

Total Residual Chlorine _____ mg/l Ammonia _____ mg/l Other _____

5. Will a State or Federal grant/loan be sought to finance any portion of this project? No

6. Present zoning of site area? Agricultural/Residential/Rural Density (ARRD)

Zoning within a 1-mile radius of site? AI, ARRD, CG, OS (See Zoning Map in Appendix N)

7. What is the distance downstream from the discharge to the nearest domestic water supply intake? 7 Miles

Name of Supply: Town of Silt

Address of Supply: P.O. Box 70, Silt, CO 81652

APPLICATION FOR SITE APPROVAL FOR CONSTRUCTION OF:
A NEW DOMESTIC WASTEWATER TREATMENT PLANT

What is the distance downstream from the discharge to the nearest other point of diversion? 13 Miles

Name of User: City of Rifle

Address of User: 202 Railroad Ave. PO Box 1908, Rifle, CO. 81650

8. What entity has the responsibility for operating the proposed facility? The Rapids on the Colorado Homeowners Association will hire a Certified operator to operate the WWTF when it is constructed.

9. Who owns the land upon which the facility will be constructed? Rapids Development Corporation

(Please attach copies of the document creating authority in the applicant to construct the proposed facility at this site)

10. Estimated project cost: $616,000

Who is financially responsible for the construction and operation of the facility? Rapids Development Corporation

11. Names and addresses of all municipalities and water and/or sanitation districts within 5 miles downstream of the proposed wastewater treatment facility site. TOWN OF SILT

(Attach a separate sheet of paper if necessary)

12. Is the facility in a 100-year flood plain or other natural hazard area? No

If so, what precautions are being taken?

Has the flood plain been designated by the Colorado Water Conservation Board, Department of Natural Resources or other agency? Colorado Water Conservation Board
(Agency Name)

If so, what is that designation?

13. Please identify any additional factors that might help the Water Quality Control Division make an informed decision on your application for site approval. The Rapids on the Colorado is a platted subdivision with provisions for ISDS systems on each lot.

(Attach a separate sheet of paper if necessary)

APPLICATION FOR SITE APPROVAL FOR CONSTRUCTION OF: A NEW DOMESTIC WASTEWATER TREATMENT PLANT

B. **If the facility will be located on or adjacent to a site that is owned or managed by a federal or state agency, send the agency a copy of this application for the agency's review and recommendation.**

C. **Recommendation of governmental authorities:**

Please address the following issues in your recommendation decision. Are the proposed facilities consistent with the comprehensive plan and any other plans, policies, and/or regulations for the area, including the 201 Facility Plan or 208 Water Quality Management Plan, as they affect water quality? If you have any further comments or questions, please call (303) 692-3500.

	Date	Recommend Approval	Recommend Disapproval	Comment	Signature of Representative
1.					N/A Management Agency
2.				Town of New Castle (within 3 miles)	City or Town (If site is inside boundary)
3.	5-16-05	X			County
4.	5-16-05	X			N/A Local Health Authority
5.					N/A Water Quality Management Planning Agency

I certify that I am familiar with the requirements of the "Regulations for the Site Application Process", and have posted the site in accordance with the regulations. An engineering report, as described by the regulations, has been prepared and is enclosed.

Date 5/20/2005 _____ Gene R. Hilton, Pres. RDC

Signature of Applicant — Typed Name

APPLICATION FOR SITE APPROVAL FOR CONSTRUCTION OF:
A NEW DOMESTIC WASTEWATER TREATMENT PLANT

ATTACHMENT TO SITE APPLICATION

In accordance with C.R.S. 1981, 25-8-702 (2)(a), (b), and (c), and the "Regulations for the Site Application Process", the Water Quality Control Division must determine that each site location is consistent with the long range, comprehensive planning for the area in which it is to be located, that the plant on the proposed site will be managed to minimize the potential adverse impacts on water quality, and must encourage the consolidation of wastewater treatment works whenever feasible.

In making this determination, the Division requires each applicant for a site approval for a domestic wastewater treatment works to supply an engineering report describing the project and showing the applicant's capabilities to manage and operate the facility over the life of the project to determine the potential adverse impacts on water quality. The report shall be considered the culmination of the planning process and as a minimum shall address the following:

Service area definition including existing and projected population, site location, staging or phasing, flow/loading projections, and relationship to other water and wastewater treatment plants in the area.

Proposed site location, evaluation of alternative sites, and evaluation of treatment alternatives.

Proposed effluent limitations as developed in coordination with the Division.

Analysis of existing facilities within the service area(s).

Analysis of opportunities for consolidation of treatment works in accordance with the provisions of 22.3(1)(c), including those recommended in the water quality management plan, unless the approved water quality management plan recommends no consolidation.

Evidence that the proposed site and facility operations will not be adversely effected by floodplain or other natural hazards. Where such hazards are identified at the selected site, the report shall describe means of mitigating the hazard.

Evidence shall be presented in the form of a report, containing soils testing results and design recommendations and prepared by a Professional Geologist and a Geotechnical Engineer, or by a professional meeting the qualifications of both Professional Geologist and Geotechnical Engineer, with an appropriate level of experience investigating geologic hazards, stating that the site will support the proposed facility.

Detailed description of selected alternatives including legal description of the site, treatment system description, design capacities, and operational staffing needs.

Legal arrangements showing control of site for the project life or showing the ability of the entity to acquire the site and use it for the project life. Approval by the Division of an application for site approval shall not be deemed to be a determination that the proposed treatment works is or is not necessary, that the proposed site is or is not the best or only site upon which to locate such a treatment works, or that location of a treatment works on the site is or is not a reasonable public use justifying condemnation of the site. Approval by the Division shall only be deemed to be a determination that the site application meets the requirement of this regulation 22 (5 CCR 1002-22).

Institutional arrangements such as contract and/ or covenant terms which will be finalized to pay for acceptable waste treatment.

Management capabilities for controlling the wastewater loadings within the capacity limitations of the proposed treatment works, i.e., user contracts, operating agreements, pretreatment requirements and or the management capabilities to expand the facilities as needed (subject to the appropriate, future review and approval procedures).

Financial system, which has been developed to provide for necessary capital and continued operation, maintenance, and replacement through the life of the project. This would include, for example, anticipated fee structure.

Implementation plan and schedule including estimated construction time and estimated start-up date.

ADDENDUM TO SITE LOCATION APPLICATION AND ENGINEERING REPORT DATED DECEMBER, 2003
The Rapids on the Colorado – Garfield County, Colorado

PURPOSE OF ADDENDUM

This Addendum provides the following information:

- Incorporates Preliminary Effluent Limits Provided by the CDPHE, WQCD for the proposed Rapids on the Colorado Planned Unit Development
- Recommendation for Approval by the Board of County Commissioners
- Recommendation for Approval by the Town of New Castle
- Recommendation by Town of Silt that New Castle be responsible
- Modifies computations contained in the December 2003 Engineering Report to reflect a decrease in density from 194 units to 121 units
- Modifies computations contained in the December 2003 Engineering Report to reflect a decrease in proposed plant capacity from .060 MGD units to 0.045 MGPD
- Attaches January 24, 2004 telephone comments by Dwain Watson, CDPHE, to the Martin / Martin December, 2003 Engineering Report
- Addresses the issues noted by Dwain Watson in the telecon noted above
- Miscellaneous – Provides the legal description, maps and cost comparisons of various alternatives involving Silt, New Castle, Apple Tree and The Rapids. Attaches Memorandum of Understanding.

Sction I. – Preliminary Effluent Limits

The Preliminary Effluent Limits – The Rapids on the Colorado WWTF, prepared by the Colorado Department of Public Health and Environment, Water Quality Control Division, are attached as **Exhibit A**.

Section II. – Location Map – Wastewater Treatment Facility (WWTF)

A map of The Rapids on the Colorado showing precisely the floodplain boundary and the location of the wastewater treatment facility is attached as **Exhibit B**.

Section III. - Financial

The Rapids Development Corporation will provide evidence of financial ability or a Letter of Credit upon approval of the WWTF site application by the County and when sufficient design information and bids are available that a financial institution could be reasonably certain that the facility could be constructed for the amount provided in a Letter of Credit.

Section IV.- Ownership of the Wastewater Treatment Facility

The Rapids Development Corporation will own and operate the WWTF. The operation and ownership of the facility could eventually be turned over to a Regional Sanitation District or other appropriate district.

Section V. - WQCD Policy Regarding Setback of Facility From Residences

The 100-foot setback policy was considered in finalizing the location of the WWTF site. The facilities are planned to be enclosed in buildings, and the nearest residences will be greater than 100 feet away. Costs for the building are included in the estimate.

It should be noted that an existing building on Lot 1, located near the proposed WWTF site, will be removed.

Section VI. – Emergency Storage Basin

The design of the WWTF has not yet begun. State of Colorado Design Criteria 5.14.10 and 5.14.11 will be considered and complied with upon commencement of design. The cost for an emergency storage basin is included in the concrete cost estimate.

Section VII. – Design Criteria – 3.5 People/Household – 100 GPD Per Person

State Design Criteria 1.3.3.g states that design flow rate should fall between 70 and 100 gallons per person per day (GPCD). Assuming 3.5 people per household, as noted by Dwain Watson of the WQCD, using 100 gallons per person per day yields 350 GPD per tap.

The density of the proposed PUD is limited by paragraph 4.07.06 of the Garfield County Zoning Regulations and by the attached Memorandum of Understanding between the applicants and the Town of New Castle.

This Site Location Application provides wastewater treatment for 121 units in accordance with the Memorandum of Understanding with the Town of New Castle.

Section VIII. – Silt, Colorado Waste Water Treatment Option

Gene R. Hilton (The Rapids) and Russell Talbott (Apple Tree) met with Rick Aluise (Silt Town Administrator), Gary Pace (Public Works Director) and Janet Steinbach (Community Development Director) on January 30, 2004.

Mr. Aluise advised Messrs. Hilton and Talbott that the RE-2 School District was extending the water and sewer lines from Silt to the new Coal Ridge High School but that the town limits did not extend to the new school.

Gene R. Hilton asked if The Rapids was within five miles of the town limits of Silt and Town Administrator, Public Works Director and Community Development Director all confirmed that it was not. Subsequent reviews of the "Stillwater" annexation by Silt shows that the "Stillwater" boundaries in Sections 12 and 13 are within five miles. A letter from Janet G. Steinbach, Community Development Director for the Town of Silt, attached as **Exhibit "D"**, confirms that Silt is within five miles and adds that "no utilities are in that location and are not proposed in that location for some time. It would appear that New Castle and these developments could more easily form a symbiotic relationship."

Tap fee costs provided in Ms. Steinbach's letter are reflected in the Section XI. estimate. In addition, the distance for the RE-2 sewer line is revised to reflect the distance from the school to the Town boundary as opposed to the distance from the school to the WWTF.

Section IX. – Consider Extension of Sewer Line From Apple Tree/Rapids To Silt Lines

A fifteen-inch sewer line was extended from Silt to the new Coal Ridge High School. The line was installed along the access road located on the south side of Interstate 70 (north of the Colorado River) and was bored under Interstate 70, the railroad tracks and US 6 to the school site located on the north side of US 6.

Gene R. Hilton proposed extending a line from Apple Tree along the south bank of the Colorado River to the west end of The Rapids, crossing the river to the Lower Cactus Valley ditch diversion, following the ditch along the river alignment to its intersection with the line being extended to the new high school, a distance of 3.75 miles.

- The Silt staff advised Hilton and Talbott that the school district was paying for the extension of the water and sewer lines from Silt to the school and that there was a "cost recovery" provision in the extension agreement requiring an allocation of the cost of installing the line to any future user,
- A tap fee within the boundaries of Silt costs $3,500.
- A tap fee outside the boundaries of Silt costs ($3,500 X 3).
- Monthly sewer charges within the boundaries of Silt costs $39.22 and will escalate annually.
- Monthly sewer charges outside the boundaries of Silt costs ($39.22 X 2) and will escalate annually.
- The Town Staff were approached regarding the possibility of negotiating a less costly tap fee. They noted that a new ordinance would be needed to permit a fee change and further noted that the Town had never encouraged selling of taps outside the Town limits.
- The attached letter from the Community Development Director of Silt notes a concern for maintaining a sewer line that crosses private property and parallels an irrigation ditch during times when the ditch is wet.
- The letter from the Town of Silt summarizes their position as: "It would appear that New Castle and these developments could more easily form a symbiotic relationship."

Section X. - Easements or Rights-of-Way

Prior to the meeting with the Town Staff, Gene R. Hilton met with the legal counsel for the ditch company that owns the Lower Cactus Valley Ditch. He was advised that the Town of Silt owned an interest in the ditch and that the easements/rights of way for the ditch would not permit construction of a sewer line in the ditch easement/right of way without the land owners consents.

The issue of easements and rights-of-way along the Lower Cactus Valley Ditch were considered in the meeting with the Silt Town Staff. The following problems were noted:

- Silt owns part interest in the Lower Cactus Valley Ditch and associated irrigation ditch easements but the existing easements cannot be used for sewer lines without approval of all property owners.
- The Rapids or Apple Tree cannot condemn the easement. Any property owner along the proposed alignment could stop the proposed sewer line extension by refusing to give/sell an easement.

Section XI. – Cost of Line Extension From The Rapids to the High School

Estimated cost for The Rapids to connect to the Silt WWTF system:

•	Tap Fees	$3,500 Per Tap X 3 (Outside Town Limits) X 121 Units	$1,270,500
•	River Crossing	425 Feet X $200 Per Foot	85,000
•	Pump Station	Required Due to Placement of Line Under the River	100,000
•	Pipeline to High School	2.52 Miles X 5,280 X $35 / Foot Due To Water Issues	465,696
•	Cost Recovery School	1.50 Miles X 5,280 X $35 / Foot Water Issues X ½ Rapids	138,600
•	Generator Back-Up	To Power Pump Station In Emergencies	60,000
•	Cost of Easements	Not Considered Further Due to High Cost of Alternative	Unknown
	Total Cost of Wastewater Treatment Lines and Taps To Connect to Silt WWTF		$2,119,796

Section XII. – Apple Tree

The meeting with the Town of Silt staff members was attended by Russell Talbott of Talbott Enterprises, the owner of Apple Tree. The route proposed by Hilton initially appeared to have potential for providing a feasible way for providing wastewater treatment to Apple Tree. However, the costs of taps and monthly service charges would cost Apple Tree over Two Million Dollars including consideration for sharing cost of lines with The Rapids. A new mechanical plant at Apple Tree would cost approximately one-half of the amount for a line to Silt. Apple Tree could upgrade their existing system at less cost than that of a new plant..

The analysis indicated that Apple Tree would benefit from upgrading their existing system.

Section XIII. Engineer's Opinion of Probable Cost of 0.045 MGD SBR Plant

		0.045 MGD
1.	Headworks	$ 28,000
2.	Sequencing Batch Reactor	138,000
3.	Sequencing Batch Reactor Basin	126,000
4.	Ultraviolet Disinfection	26,000
5.	Sludge Holding	38,000
6.	Standby Generator	35,000
7.	Outfall Structure	6,000
8.	Blowers and Building	24,400
9.	Building Covering Plant	120,000
10.	Site Work	18,000
11.	Yard Piping	18,000
12.	Electrical / Instrumentation	32,000
13.	Outfall Line	4,500
14.	Contingencies at 8%	48,992
	TOTAL COST	$ 661,392

Section XIV. – Preliminary Comments Dwain Watson, CDPHE

A copy of the "SITE LOCATION APPLICATION AND ENGINEERING REPORT – WASTEWATER TREATMENT FACILITY – The Rapids on the Colorado – Garfield County, Colorado" was provided to Dwain Watson, CDPHE prior to the submission of the signed copies.

Mr. Watson's preliminary comments were noted in a telephone conversation with Jeremy Montrose on January 23, 2004. A copy of the notes of the discussion is attached as Exhibit E.

Section XV. – Code of Colorado Regulations – 5 CCR 1002-22

The regulations provide that in the event the proposed facility is located in the unincorporated area of a county, the Code of Regulations requests, in 5 CCR 1002-22.4(2)(b), the County provide the following:

> (b) County if the proposed facility is located in the unincorporated area of a county. The county, through its commissioners or its designee, is requested to review and comment upon the relationship of the treatment works to the local long-range comprehensive plan for the area as it affects
>
> 1. water quality,
> 2. proposed site location alternatives including the location with respect to the flood plain, and
> 3. capacity to serve the planned development.

Compliance With the Code of Colorado Regulations – 5 CCR 1002-22.(2)(b)

The Applicants have addressed the issues of water quality, flood plain and WWTF capacity in the Site Application as follows:

1. The treatment works will be designed to comply with the water quality requirements of the Preliminary Effluent Limits as established by the Colorado Department of Public Health and Environment (Attached as Exhibit "A").

2. H-P Geotech conducted a "Subsoil Study for Foundation Design, Proposed Waste Water Treatment Site, Lot 1, The Rapids on the Colorado, County Road 335, Garfield County, Colorado" in order to test the soils and establish foundation recommendations for construction of the WWTF.

3. The building envelope for the WWTF has been certified by Peter Belau, Enartech, an engineer licensed in the State of Colorado, as being outside the 100-year flood plain. (Reference Appendix "I" of the Site Location Application.

4. Martin / Martin Consulting Engineers has prepared the Site Location Application and Engineering Report and will design the waste water treatment facility in accordance with the design criteria provided by the Colorado Department of Public Health and Environment.

Section XVI

Legal Description of the property proposed to be served by the WWTF is provided as Attachment "F".

Section XVII.

Memorandum of Understanding – Town of New Castle and Applicants is attached as Exhibit "D"

Section XVIII.

Site Location Application Presentation to Garfield County BOCC (Exhibit "I")

EXHIBIT "A"

STATE OF COLORADO

Bill Owens, Governor
Douglas H. Benevento, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.
Denver, Colorado 80246-1530
Phone (303) 692-2000
TDD Line (303) 691-7700
Located in Glendale, Colorado

http://www.cdphe.state.co.us

Laboratory Services Division
8100 Lowry Blvd.
Denver, Colorado 80230-6928
(303) 692-3090

Colorado Department
of Public Health
and Environment

January 12, 2004

Gene Hilton
The Rapids Development Corporation
2102 West Arapahoe Drive
Littleton, CO 80120-3008

Re: Preliminary Effluent Limits
The Rapids on the Colorado WWTF
Garfield County

Dear Mr. Hilton:

The Colorado Department of Public Health and Environment, Water Quality Control Division, has completed your request for preliminary effluent limits (PELs) for the proposed The Rapids on the Colorado wastewater treatment facility (WWTF). Your current proposal is for a WWTF with a hydraulic design capacity of 0.060 million gallons per day (MGD).

This proposed facility would discharge into the Colorado River in the SW 1/4, Section 4, T6S, R91W; latitude 39° 33' 04" North, longitude 107° 34' 11" West; approximately 2 miles west of New Castle, CO. This portion of the Colorado River is identified as stream segment COLCLC01, which means the Lower Colorado River Basin, Lower Colorado River Sub basin, Stream Segment 01. This stream segment is composed of the "Mainstem of Colorado River from the confluence with the Roaring Fork River to immediately below the confluence with Parachute Creek." These identifications are found in the *Classifications and Numeric Standards for Lower Colorado River Basin.*

Effluent limits for specific constituents are based on the type of permit a facility will require after construction. The Rapids on the Colorado WWTF, with its proposed hydraulic design capacity of 0.060 MGD, may be covered by a general permit.

The preliminary effluent limitations were developed for The Rapids on the Colorado WWTF based on effluent limits established in the *Regulations for Effluent Limitations* for a WWTF consisting of a mechanical wastewater treatment process, as well as the water quality-based effluent limits necessary for protection of the water quality of the Colorado River. A PELs evaluation is attached to document the findings and decisions that were used to derive the PELs in Table 1.

Table 1
Proposed The Rapids Development Corporation WWTF
Preliminary Effluent Limits for Discharge to the Colorado River

BOD_5 (mg/l)	45 (7-day average), 30 (30-day average)
BOD_5 (% removal)	85 (30-day average)
TSS, mechanical plant (mg/l)	45 (7-day average), 30 (30-day average)
TSS, mechanical plant (% removal)	85 (30-day average)
Oil and Grease (mg/l)	10 (maximum)
pH (s.u.)	6.5-9.0 (minimum-maximum)
Fecal Coliform (#/100 ml)	12000 (7-day average), 6000 (30-day average)

Note that limitations for ammonia were determined to not be necessary for this facility. Total Ammonia monitoring may be included in the permit as an indicator of plant operations.

If you have any questions regarding this matter, please contact me at (303) 692-3524.

Sincerely,

Lynn Kimble

Lynn Kimble, P.E.
Permits Unit, Water Quality Protection Section
Water Quality Control Division

cc: Tom Bennett, WQCD
Dwain Watson, WQCD
Roger H. Smades, P.E., Martin/Martin, 12499 West Colfax, Lakewood, CO 80215

PRELIMINARY EFFLUENT LIMITS
THE COLORADO RIVER
THE RAPIDS DEVELOPMENT CORPORATION WWTF

Table 1
Assessment Summary

Name of Facility	The Rapids Development Corporation WWTF
CDPS Number	CO-PEL
WBID - Stream Segment	Lower Colorado River Basin, Lower Colorado River Sub-basin, Stream Segment 01: Mainstem of Colorado River from the confluence with the Roaring Fork River to immediately below the confluence with Parachute Creek. COLCLC01
Classifications	Cold Water Aquatic Life Class 1 Class 1a Existing Primary Contact Recreation Agriculture Water Supply
Designation	Undesignated

I. Introduction

The preliminary effluent limits (PELs) evaluation of the Colorado River near The Rapids Development Corporation Wastewater Treatment Facility (WWTF) was developed for the Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Division (WQCD). The evaluation was conducted to facilitate issuance of PELs for The Rapids Development Corporation WWTF for pollutants found to be of concern

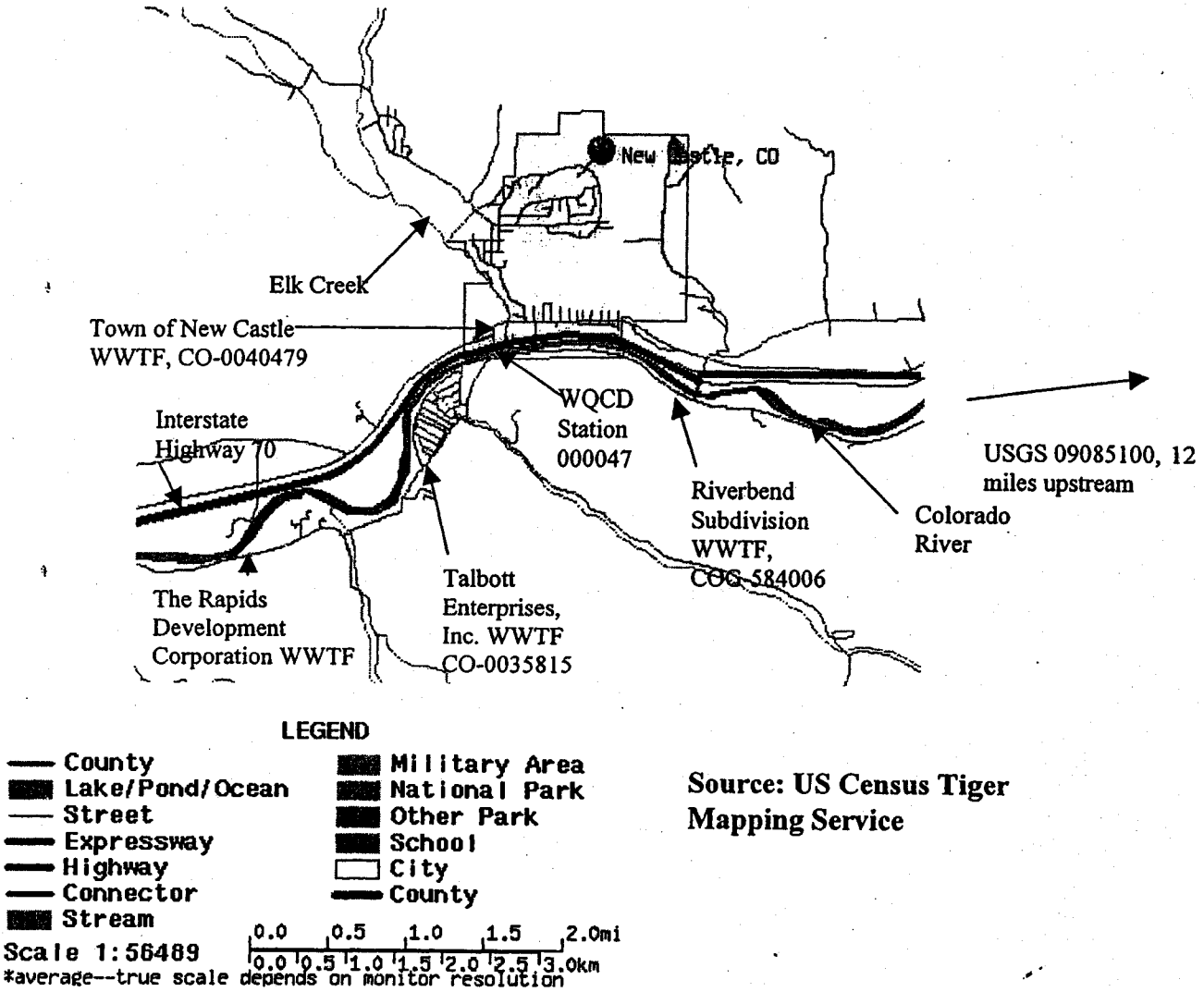
Figure 1 on the following page contains a map of the study area evaluated as part of this PEL.

The Rapids Development Corporation WWTF will discharge to the Colorado River. The Rapids Development Corporation is planning a new residential development west of the Town of New Castle named The Rapids on the Colorado. A mechanical WWTF with a design flow of 0.060 MGD will serve this development.

The ratio of the low flow of the Colorado River to The Rapids Development Corporation WWTF design flow is 11,247:1. Because of the large flow in the Colorado River, nearby upstream and downstream facilities would have little if any impact on the assimilative capacities available to The Rapids Development Corporation WWTF. Analyses thus indicate that assimilative capacities are very large.

Information used in this assessment includes data gathered from The Rapids Development Corporation, the WQCD, the U.S. Environmental Protection Agency (EPA), the U.S. Geological Survey (USGS), and the U.S. Census Bureau TIGER Mapping Service. The data used in the assessment consist of the best information available at the time of preparation of this PELs analysis.

Figure A-1
Study Area



II. Water Quality

The Rapids Development Corporation WWTF will discharge to the Water Body Identification (WBID) stream segment COLCLC01, which means the Lower Colorado River Basin, Lower Colorado River Sub-basin, Stream Segment 01. This segment is composed of the "Mainstem of Colorado River from the confluence with the Roaring Fork River to immediately below the confluence with Parachute Creek." Stream segment COLCLC01 is classified for Cold Water Aquatic Life Class 1, Class 1a Existing Primary Contact Recreation, Agriculture, and Water Supply.

Numeric standards are developed on a basin-specific basis and are adopted for particular stream segments by the Water Quality Control Commission. To simplify the listing of the segment-specific standards, many of the aquatic life standards are contained in a table at the beginning of each chapter of the regulations. The standards in Table 2 have been assigned to stream segment COLCLC01 in accordance with the *Classifications and Numeric Standards for Lower Colorado River Basin,*

effective January 20, 2004. Because this WWTF has not yet been constructed, this soon to be effective version of the Classifications and Standards document is being followed.

Table 2 **In-stream Standards for Stream Segment COLCLC01**
Physical and Biological
Dissolved Oxygen (DO) = 6 mg/l, minimum (7 mg/l, minimum during spawning)
pH = 6.5 - 9 su
Fecal Coliform = 200 colonies/100 ml
Inorganic
Un-ionized ammonia acute = TVS
Un-ionized ammonia chronic = 0.02 mg/l
Chlorine acute = 0.019 mg/l
Chlorine chronic = 0.011 mg/l
Free Cyanide acute = 0.005 mg/l
Sulfide chronic = 0.002 mg/l
Boron chronic = 0.75 mg/l
Nitrite = 0.05 mg/l
Nitrate = 10 mg/l
Chloride chronic = 250 mg/l
Sulfate chronic = 250 mg/l
Metals
Total Recoverable Arsenic acute = 50 ug/l
Dissolved Cadmium acute for trout and Dissolved Cadmium chronic = TVS
Total Recoverable Trivalent Chromium acute = 50 ug/l
Dissolved Hexavalent Chromium acute and chronic = TVS
Dissolved Copper acute and chronic = TVS
Dissolved Iron chronic = 300 ug/l
Total Recoverable Iron chronic = 1000 ug/l
Dissolved Lead acute and chronic = TVS
Dissolved Manganese chronic = 50 ug/l
Dissolved Manganese acute = TVS
Total Mercury chronic = 0.01 ug/l
Dissolved Nickel acute and chronic = TVS
Dissolved Selenium acute and chronic = TVS
Dissolved Silver acute and Dissolved Silver chronic for trout = TVS
Dissolved Zinc acute and chronic = TVS

Standards for metals are generally shown in the regulations as Table Value Standards (TVS), and these often must be derived from equations that depend on the receiving stream hardness or species of fish present. The Classification and Numeric Standards documents for each basin include a specification for appropriate hardness values to be used. Specifically, the regulations state that:

> The hardness values used in calculating the appropriate metal standard should be based on the lower 95% confidence limit of the mean hardness value at the periodic low flow criteria as determined from a regression analysis of site-specific data. Where insufficient site-specific data exists to define the mean hardness value at the periodic low flow criteria, representative regional data shall be used to perform the regression

analysis. Where a regression analysis is not appropriate, a site-specific method should be used.

Hardness data for the Colorado River near the proposed point of discharge of The Rapids Development Corporation WWTF were insufficient to conduct a regression analysis based on the low flow. Therefore, the WQCD's alternative approach to calculating hardness was used, which involves computing a mean hardness.

The mean hardness was computed to be193 mg/l based on sampling data from WQCD Water Quality Station 000047 located on the Colorado River upstream of The Rapids Development Corporation WWTF. This hardness value and the formulas contained in the TVS were used to calculate the in-stream water quality standards for metals, with the results shown in Table 3.

Table 3
TVS-Based Metals Water Quality Standards For The Rapids Development Corp WWTF
Based on the Table Value Standards Contained in the Colorado Department of Public Health and Environment Water Quality Control Commission *Regulation 37*

Calculated Using the Following Value for Hardness as $CaCO_3$: 193 mg/l

Parameter	*In-Stream Water Quality Standard*		*Formula Used*
Cadmium, Dissolved	Trout	7.5 ug/l	$[1.13667-0.04184\ln(\text{hardness})][e^{(1.128(\ln(\text{hardness}))-3.828)}]$
	Chronic	3.6 ug/l	$[1.10167-0.04184\ln(\text{hardness})][e^{(0.7852(\ln(\text{hardness}))-2.715)}]$
Hexavalent Chromium, Dissolved	Acute	16 ug/l	Numeric standards provided, formula not applicable
	Chronic	11 ug/l	Numeric standards provided, formula not applicable
Copper, Dissolved	Acute	25 ug/l	$e^{(0.9422(\ln(\text{hardness}))-1.7408)}$
	Chronic	16 ug/l	$e^{(0.8545(\ln(\text{hardness}))-1.7428)}$
Lead, Dissolved	Acute	131 ug/l	$[1.46203-0.145712\ln(\text{hardness})][e^{(1.273(\ln(\text{hardness}))-1.46)}]$
	Chronic	5.1 ug/l	$[1.46203-0.145712\ln(\text{hardness})][e^{(1.273(\ln(\text{hardness}))-4.705)}]$
Manganese	Acute	3717 ug/l	$e^{(0.3331(\ln(\text{hardness}))+6.4676)}$
	Chronic	2054 ug/l	$e^{(0.3331(\ln(\text{hardness}))+5.8743)}$
Nickel, Dissolved	Acute	817 ug/l	$e^{(0.846(\ln(\text{hardness}))+2.253)}$
	Chronic	91 ug/l	$e^{(0.846(\ln(\text{hardness}))+0.0554)}$
Selenium, Dissolved	Acute	18 ug/l	Numeric standards provided, formula not applicable
	Chronic	4.6 ug/l	Numeric standards provided, formula not applicable
Silver, Dissolved	Acute	6.3 ug/l	$\frac{1}{2}\, e^{(1.72(\ln(\text{hardness}))-6.52)}$
	Trout	0.23 ug/l	$e^{(1.72(\ln(\text{hardness}))-10.51)}$
Zinc, Dissolved	Acute	205 ug/l	$e^{(0.8473(\ln(\text{hardness}))+0.8618)}$
	Chronic	206 ug/l	$e^{(0.8473(\ln(\text{hardness}))+0.8699)}$

Ambient Water Quality

The WQCD evaluates ambient water quality based on a variety of statistical methods as prescribed in Section 31.8(2)(a)(i) and 31.8(2)(b)(i)(B) of the *Colorado Department of Public Health and Environment Water Quality Control Commission Regulation No. 31.* Ambient water quality is evaluated in this PELs analysis for use in determining assimilative capacities and in completing antidegradation reviews for pollutants of concern.

To conduct an assessment of the ambient water quality upstream of The Rapids Development Corporation WWTF, data were gathered from WQCD water quality station 000047 located approximately 3 miles upstream from the proposed facility. Data were available for a period of record from October 1995 through December 1999. A summary of these data is presented in Table 4.

Table 4
Ambient Water Quality for the Colorado River

Parameter	*Number of Samples*	*15th Percentile*	*50th Percentile*	*85th Percentile*	*Mean*	*Chronic Stream Standard*	*Notes*
Temp (°C)	50	1.9	7.7	15	8.2	20	
DO (mg/l)	48	9.2	11	13	11	7	
pH (su)	47	8.2	8.4	8.6	8.3	6.5-9	
Fecal Coliform (#/100 ml)	44	3	23	93	20	200	1
Hardness (mg/l CaCO3)	76	120	205	240	193	NA	
As, Trec (ug/l)	15	0	0	0	0.027	NA	2
Cd, Dis (ug/l)	49	0	0	0	0	3.6	2
Cu, Dis (ug/l)	49	0	0	0	0.42	16	2
Fe, Dis (ug/l)	9	5.0	27	36	29	300	
Fe, Trec (ug/l)	49	51	120	726	562	1000	
Pb, Dis (ug/l)	49	0	0	0	0.073	5.1	2
Mn, Dis (ug/l)	49	6.0	9.0	14	8.9	50	
Hg, Trec (ug/l)	20	0	0	0	0	NA	2
Se, Dis (ug/l)	48	0	0	1.0	0.34	4.6	2
Ag, Dis (ug/l)	34	0	0	0	0	0.23	2
Zn, Dis (ug/l)	49	0	0	22	9.9	206	2
Sulfate (mg/l)	49	43	92	120	87	250	
Nitrate+Nitrite (mg/l)	49	0	0	0.10	0.039	NA	2
NH_3, Tot (mg/l)	49	0	0	0	0.0080	NA	2
NH_3, Unionized (mg/l)	26	0.0030	0.0050	0.010	0.0062	0.02	
TSS (mg/l)	26	0	0	59	30	NA	2

Note 1: The calculated mean is the geometric mean. Note that for summarization purposes, the value of one was used where there was no detectable amount because zero cannot be used to calculate the geometric.

Note 2: When sample results were below detection levels, the value of zero was used in accordance with the CO WQCD's standard approach for summarization and averaging purposes.

III. Water Quantity

The Colorado Regulations specify the use of low flow conditions when establishing water quality based effluent limitations, specifically the acute and chronic low flows. The acute low flow, referred to as 1E3, represents the one-day low flow recurring in a three-year interval. The chronic low flow, 30E3, represents the 30-day average low flow recurring in a three-year interval.

Low Flow Analysis

To determine the low flows available to The Rapids Development Corporation WWTF, USGS gage station 09085100 (Colorado River below Glenwood Springs, CO) was used. This gage station provides a conservative analysis of the low flows available to The Rapids Development Corporation WWTF because additional streams add flow to the Colorado River below the location of the gage station. A conservative analysis is adequate for this WQA because the process required to add the additional flows to reflect the actual low flow available to the facility would be resource intensive and would not change the outcome of this analysis.

Daily flows from the USGS Gage Station 09085100 (Colorado River below Glenwood Springs, CO) were obtained and the annual 1E3 and 30E3 low flows were calculated using U.S. Environmental Protection Agency (EPA) DFLOW software. The output from DFLOW provides calculated acute and chronic low flows for each month.

Flow data from October 1, 1992 through September 30, 2002, were available from the gage station. The gage station and time frames were deemed the most accurate and representative of current flows and were therefore used in this analysis.

Based on the low flow analysis described previously, the upstream low flows available to The Rapids Development Corporation WWTF were calculated and are presented in Table 5.

Table 5
Low Flows for the Colorado River at The Rapids Development Corporation WWTF

Low Flow (cfs)	*Annual*	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*
1E3 Acute	875	875	879	875	1109	1751	1597	1411	1250	1081	1021	875	898
30E3 Chronic	1046	1046	1046	1046	1109	1870	1597	1467	1250	1250	1347	1050	1050

During the months of April, June, and August, the acute low flow calculated by DFLOW exceeded the chronic low flow. In accordance with WQCD standard procedures, the acute low flow was thus set equal to the chronic low flow for these months.

IV. Technical Analysis

In-stream background data and low flows evaluated in Sections II and III are ultimately used to determine the assimilative capacity of the Colorado River near The Rapids Development Corporation WWTF for pollutants of concern. For all parameters except ammonia, it is the WQCD's approach to conduct a technical analysis of stream assimilation capacity using the lowest of the monthly low flows (referred to as the annual low flow) as calculated in the low flow analysis. For ammonia, it is the standard procedure of the WQCD to determine assimilative capacities for each month using the monthly low flows calculated in the low flow analysis, as the regulations allow the use of seasonal flows when establishing assimilative capacities.

The WQCD's standard analysis consists of steady-state, mass-balance calculations for most pollutants and modeling for pollutants such as ammonia. The mass-balance equation is used by the WQCD to calculate the maximum allowable concentration of pollutants in the effluent, and accounts for the upstream concentration of a pollutant at the existing quality, critical low flow (minimal dilution), effluent flow and the water quality standard. The mass-balance equation is expressed as:

$$M_2 = \frac{M_3 Q_3 - M_1 Q_1}{Q_2}$$

Where,

Q_1 = Upstream low flow (1E3 or 30E3)
Q_2 = Average daily effluent flow (design capacity)
Q_3 = Downstream flow ($Q_1 + Q_2$)
M_1 = In-stream background pollutant concentrations at the existing quality
M_2 = Calculated maximum allowable effluent pollutant concentration
M_3 = Maximum allowable in-stream pollutant concentration (water quality standards)

The upstream background pollutant concentrations used in the mass-balance equation will vary based on the regulatory definition of existing ambient water quality. For most pollutants, existing quality is determined to be the 85th percentile. For metals in the total recoverable form, existing quality is determined to be the 50th percentile. For pathogens such as fecal coliform, existing quality is determined to be the geometric mean.

For non-conservative parameters and ammonia, the mass-balance equation is not as applicable and thus other approaches are considered where appropriate. Note that conservative pollutants are pollutants that are modeled as if mass is conserved and there is no degradation, whereas non-conservative pollutants degrade and sometimes are created within a receiving stream depending on stream conditions. A more detailed discussion of the technical analysis for these parameters is provided in the pages that follow.

Pollutants of Concern

The following pollutants were identified by the WQCD as pollutants of concern for this facility:

- BOD_5
- TSS
- Percent removal

- Oil and Grease
- pH
- DO
- Fecal Coliform
- Total Residual Chlorine
- Ammonia.

There are no in-stream water quality standards for BOD_5, TSS, percent removal, and oil and grease for the the Colorado River. Thus, assimilative capacities were not determined for these parameters in this section and an antidegradation review for these parameters was not conducted in Section V. The evaluation of applicable limitations for these pollutants can be found in Section VI, Regulatory Analysis.

During assessment of the facility, nearby facilities, and receiving stream water quality, no additional parameters were identified as pollutants of concern. It should be noted that cyanide and metals are not evaluated as part of PELs development because it is the WQCD's approach to ensure control of cyanide and metals through a pretreatment program, if necessary, rather than through wastewater treatment at the applicant's facility.

During assessment of the facility, nearby facilities, and receiving stream water quality, no additional parameters were identified as pollutants of concern.

The Rapids Development Corporation WWTF: The Rapids Development Corporation WWTF will be located in the SW 1/4, Section 4, T6S, R91W; Latitude 39° 33' 04" North, longitude 107° 34' 11" West; approximately 2 miles west of New Castle, CO, in Garfield County. The proposed design capacity of the facility is 0.060 MGD (0.093 cfs). Wastewater treatment is proposed to be accomplished using a mechanical wastewater treatment process. The technical analyses that follow include assessments of the assimilative capacity based on this design capacity.

Nearby Sources

An assessment of nearby facilities based on EPA's Permit Compliance System (PCS) database found 63 dischargers in the Garfield County area. Several facilities conducted construction-related operations (e.g., sand and gravel mining or construction dewatering) and thus had no pollutants of concern in common with The Rapids Development Corporation WWTF. Other facilities were located more than twenty miles from The Rapids Development Corporation WWTF and thus were not considered.

- The Town of New Castle WWTF (CO-0040479), which discharges to the Colorado River approximately 2.5 miles upstream from The Rapids Development Corporation WWTF. This WWTF has a design capacity of 0.20 MGD.
- Talbott Enterprises, Inc. WWTF (CO-0035815), which discharges to the Colorado River approximately 1.5 miles upstream from The Rapids Development Corporation WWTF. This WWTF has a design capacity of 0.15 MGD.
- Riverbend Subdivision WWTF (COG-584006), which discharges to the Colorado River approximately 3.5 miles upstream from The Rapids Development Corporation WWTF. This WWTF has a design capacity of 0.0247 MGD.

- Town of Silt WWTP (COG584046), which discharges to the Colorado River approximately 6.5 miles downstream.

The ambient water quality background concentrations used in the mass-balance equation account for pollutants of concern contributed by these upstream sources, and thus it was not necessary to model the upstream dischargers together with The Rapids Development Corporation WWTF when determining the available assimilative capacities in the Colorado River. Due to the distance traveled, the significant dilution of the receiving stream, and the relatively small contributions by the facilities of concern, modeling downstream facilities in conjunction with The Rapids Development Corporation WWTF was not necessary.

Based on available information, there is no indication that non-point sources were a significant source of pollutants of concern. Thus, non-point sources were not considered in this assessment.

pH: The pH of a stream measures the intensity of the acidity or alkalinity of the stream. When pH falls outside of the neutral range, it can be harmful to aquatic life. To determine assimilative capacities of a stream for pH, the buffering capacity of the receiving stream and its interaction with the discharge contributions would need to be assessed in a complex evaluation.

An evaluation of pH data available for the Colorado River near the proposed The Rapids Development Corporation WWTF found that the 15th percentile value was well above the minimum in-stream water quality standard and the 85th percentile value was well below the maximum in-stream water quality standard. Because only limited data are available and because ambient water quality data indicate that no further controls are needed to meet in-stream pH standards, a complex evaluation of the assimilative capacity for pH is not warranted for this facility.

DO: The availability of dissolved oxygen in receiving streams is critical for aquatic life. Decomposition of organic matter and nitrification within receiving streams are generally the causes of the depletion of DO from receiving waters.

For a non-conservative parameter like DO, a simple mass balance cannot be used to determine assimilative capacity. Instead, background DO, stream flow, 5-day biochemical oxygen demand and ammonia loading, stream dimensions, temperature, and estimates of effluent DO may be incorporated into models such as the Streeter-Phelps DO model or STREAMDO to simulate the impact of WWTF discharges.

An evaluation of DO data available for the Colorado River near the proposed The Rapids Development Corporation WWTF found that the 15th percentile value was well above the minimum in-stream water quality standard. Because only limited data are available and because ambient water quality data indicate that no further controls are needed to meet in-stream standards for DO, modeling was not conducted as part of this evaluation and no further discussion of DO is provided.

Chlorine: The mass-balance equation was used to determine the assimilative capacity for chlorine. There are no point sources discharging total residual chlorine within one mile of The Rapids Development Corporation WWTF. Because chlorine is rapidly oxidized, in-stream levels of residual

chlorine are detected only for a short distance below a source. Ambient chlorine was therefore assumed to be zero.

Using the mass-balance equation provided in the beginning of Section IV, the acute and chronic low flows set out in Section III, the chlorine background concentration of zero as discussed above, and the in-stream standards for chlorine shown in Section II, assimilative capacities for chlorine were calculated. The data used and the resulting calculations of the allowable discharge concentration, M_2, are set forth below.

Parameter	Q_1 *(cfs)*	Q_2 *(cfs)*	Q_3 *(cfs)*	M_1 *(mg/l)*	M_3 *(mg/l)*	M_2 *(mg/l)*
Acute Chlorine	875	0.093	875.093	0	0.019	***179***
Chronic Chlorine	1046	0.093	1046.093	0	0.011	***124***

Fecal Coliform: There are no point sources discharging fecal coliform within one mile of The Rapids Development Corporation WWTF. Thus, fecal coliform assimilative capacities were evaluated separately.

It is the standard approach of the WQCD to perform a mass-balance check to determine if fecal coliform standards are exceeded. WQCD procedure specifies that checks are conducted using only the chronic low flow as set out in Section III. Using the mass-balance equation provided in the beginning of Section IV, the background concentration contained in Section II, and the in-stream standards for fecal coliform shown in Section II, checks for fecal coliform were conducted. The data used and the resulting calculations of the allowable discharge concentration, M_2, are set forth below.

Parameter	Q_1 *(cfs)*	Q_2 *(cfs)*	Q_3 *(cfs)*	M_1 *(#/100 ml)*	M_3 *(#/100 ml)*	M_2 *(#/100 ml)*
Fecal Coliform	1046	0.093	1046.093	20	200	***2,024,716***

Ammonia: Ammonia is present in the aqueous environment in both ionized and un-ionized forms. It is the un-ionized form which is toxic and which is addressed by water quality standards. The proportion of total ammonia present in un-ionized form in the receiving stream is a function of the combined upstream and effluent ammonia concentrations, and the pH and temperature of the effluent and receiving stream, combined.

The Colorado Ammonia Model (CAM) is a software program designed to project the downstream effects of ammonia and the ammonia assimilative capacities available to each discharger based on upstream water quality and effluent discharges. To develop data for the CAM, an in-stream water quality study must be conducted of the upstream receiving water conditions, particularly the pH and corresponding temperature, over a period of at least one year.

There were no data available for the Colorado River near The Rapids Development Corporation WWTF that could be used as adequate input data for the CAM. Therefore, the WQCD standard procedure is to rely on default values for the allowable chronic concentrations of in-stream total

ammonia, which are provided in the *Colorado Total Maximum Daily Load and Wasteload Allocation Guidance* and the *CDPS Summary of Rationale General Permit for Domestic Wastewater Treatment Facilities that Discharge to Receiving Waters with a Chronic Low Flow: Design Flow Ratio of 100:1 or Greater.* Note that acute values are not provided in these sources and thus are not evaluated as part of this assessment.

Using the mass-balance equation provided in the beginning of Section IV, the acute and chronic low flows set out in Section III, the ammonia existing quality concentration shown in Section II, and the in-stream standards found in the *Colorado Total Maximum Daily Load and Wasteload Allocation Guidance* and the *CDPS Summary of Rationale General Permit for Domestic Wastewater Treatment Facilities that Discharge to Receiving Waters with a Chronic Low Flow: Design Flow Ratio of 100:1 or Greater* for M_3, assimilative capacities for chronic total ammonia were calculated. The data used and the resulting calculations of the allowable discharge concentration, M_2, are contained in Table 6.

Table 6
Ammonia Assimilative Capacities for the Colorado River at The Rapids Development Corporation WWTF
Design of 0.06 MGD (0.093 cfs)

Parameter	Q_1 *(cfs)*	Q_2 *(cfs)*	Q_3 *(cfs)*	M_1	M_3	M_2
NH_3, Tot (mg/l) Jan	1046	0.093	1046.093	0.0080	0.70	***7,784***
NH_3, Tot (mg/l) Feb	1046	0.093	1046.093	0.0080	0.60	***6,659***
NH_3, Tot (mg/l) Mar	1046	0.093	1046.093	0.0080	0.40	***4,409***
NH_3, Tot (mg/l) Apr	1109	0.093	1109.093	0.0080	0.40	***4,675***
NH_3, Tot (mg/l) May	1870	0.093	1870.093	0.0080	0.30	***5,872***
NH_3, Tot (mg/l) Jun	1597	0.093	1597.093	0.0080	0.30	***5,015***
NH_3, Tot (mg/l) Jul	1467	0.093	1467.093	0.0080	0.30	***4,606***
NH_3, Tot (mg/l) Aug	1250	0.093	1250.093	0.0080	0.30	***3,925***
NH_3, Tot (mg/l) Sep	1250	0.093	1250.093	0.0080	0.30	***3,925***
NH_3, Tot (mg/l) Oct	1347	0.093	1347.093	0.0080	0.30	***4,230***
NH_3, Tot (mg/l) Nov	1050	0.093	1050.093	0.0080	0.30	***3,297***
NH_3, Tot (mg/l) Dec	1050	0.093	1050.093	0.0080	0.50	***5,555***

Based on the analysis, the assimilative capacity of the receiving water is large enough to allocate a total ammonia effluent concentration of 30 mg/l.

V. Antidegradation Review

As set out in *The Basic Standards and Methodologies of Surface Water*, Section 31.8(2)(b), an antidegradation analysis is required except in cases where the receiving water is designated as "Use Protected." Note that "Use Protected" waters are waters "that the Commission has determined do

not warrant the special protection provided by the outstanding waters designation or the antidegradation review process" as set out in Section 31.8(2)(b). The antidegradation section of the regulation became effective in December 2000, and therefore antidegradation considerations are applicable to this PELs analysis.

According to the *Classifications and Numeric Standards for Lower Colorado River Basin*, stream segment COLCLC01 is Undesignated. Thus, an antidegradation review may be conducted for this segment if new or increased impacts are found to occur. However, the ratio of the flow of the Colorado River to The Rapids Development Corporation WWTF design flow is 11,247:1 at low flows. Section 31.8 (3)(c) specifies that the discharge of pollutants should not be considered to result in significant degradation of the reviewable waters if the flow rate is greater than 100:1 dilution at low flow. Thus, condition 31.8(3)(c) of the regulations is met and no further antidegradation evaluation is necessary.

VI. Regulatory Analysis

Regulation 62, the *Regulations for Effluent Limitations,* includes effluent limitations that apply to all discharges of wastewater to State waters, with the exception of storm water and agricultural return flows. These regulations are applicable to the discharge from the proposed The Rapids Development Corporation WWTF. Table 7 contains a summary of these limitations.

Table 7
Specific Limitations for the Discharge of Wastes

Parameter	*7-Day Average*	*30-Day Average*	*Instantaneous Maximum*
BOD_5	45 mg/l	30 mg/l	NA
TSS, mechanical plant	45 mg/l	30 mg/l	NA
TSS, aerated lagoon	110 mg/l	75 mg/l	NA
TSS, non-aerated lagoon	160 mg/l	105 mg/l	NA
BOD_5 Percent Removal		85%	
TSS Percent Removal		85%	
Total Residual Chlorine			0.5 mg/l
pH			6.0-9.0 su range
Oil and Grease			10 mg/l

Note that the TSS limitations shown above vary based on the type of wastewater treatment processes used at the facility. The *Regulations for Effluent Limitations* waive the 85 percent removal requirements for TSS where waste stabilization ponds, both aerated and non-aerated, are used as the principal process for treating domestic wastes.

Section 62.4(1) of the *Regulations for Effluent Limitations* also indicates that numeric limitations for fecal coliform shall be determined. The State has developed the *Procedure for Selection of Fecal Coliform Limitations Permit Conditions* that specifies a 30-day average limit of 6,000 colonies per 100 ml and a 7-day average limit of 12,000 colonies per 100 ml when the ratio of the receiving stream flow to design flow is greater than ten to one. The *Procedure for Selection of Fecal Coliform*

Limitations Permit Conditions also specifies that the 7-day average limit must be calculated as two times the 30-day average limit.

VII. Preliminary Effluent Limits

The potential PELs reflected in Table 8 include the consideration of the following:

- Assimilative capacities as discussed in the technical analysis contained in Section IV
- Effluent limits prescribed by the regulations based on the regulatory analysis provided in Section VI.

A determination of which PELs ultimately apply will be dependent on decisions made by The Rapids Development Corporation WWTF.

Table 8
Proposed The Rapids Development Corporation WWTF
Preliminary Effluent Limits for Discharge to the Colorado River

BOD_5 (mg/l)	45 (7-day average), 30 (30-day average)
BOD_5 (% removal)	85 (30-day average)
TSS, mechanical plant (mg/l)	45 (7-day average), 30 (30-day average)
TSS, mechanical plant (% removal)	85 (30-day average)
Oil and Grease (mg/l)	10 (maximum)
pH (s.u.)	6.5-9.0 (minimum-maximum)
Fecal Coliform (#/100 ml)	12000 (7-day average), 6000 (30-day average)

Note that limitations for ammonia were not necessary for this facility because the assimilative capacity of the receiving water, as discussed in Section IV, is large enough to establish total ammonia effluent concentrations at 30 mg/l. Because treated sanitary sewage effluent is not expected to have a total ammonia concentration greater than 30 mg/l, no additional allocations were determined as per WQCD procedure.

VIII. References

Procedure for Selection of Fecal Coliform Limitations Permit Conditions, CDPHE, WQCD, April 7, 1976.

Colorado Total Maximum Daily Load and Wasteload Allocation Guidance, CDPHE, WQCD, November 1991.

Classifications and Numeric Standards for Lower Colorado River Basin, Regulation No. 37, CDPHE, WQCC, Effective January 20, 2004.

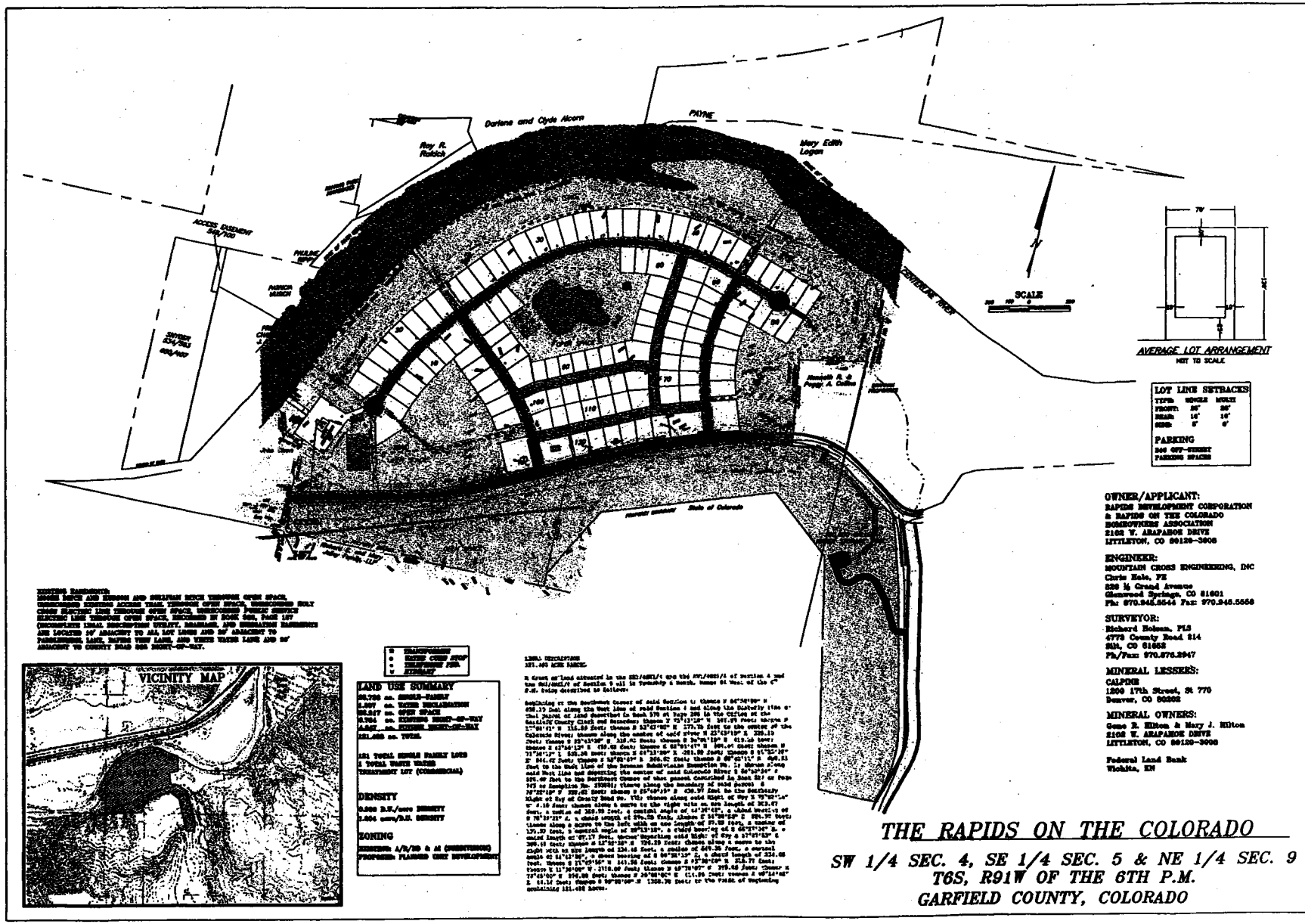
The Basic Standards and Methodologies for Surface Water, Regulation 31, CDPHE, WQCC, Effective October 30, 2001.

CDPS Summary of Rationale General Permit for Domestic Wastewater Treatment Facilities that Discharge to Receiving Waters with a Chronic Low Flow: Design Flow Ratio of 100:1 or Greater, CDPS Permit COG-584000, Statewide, CDPHE, WQCD, September 14, 1994.

Antidegradation Significance Determination for New or Increased Water Quality Impacts, Procedural Guidance, CDPHE, WQCD, December 2001.

Memorandum Re: First Update to Guidance Version 1.0, CDPHE, WQCD, April 23, 2002.

EXHIBIT "B"



MOUNTAIN CROSS ENGINEERING, INC.

The RAPIDS on the COLORADO
Planned Unit Development
SKETCH PLAN

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SHEET 1

EXHIBIT "C"

Town of Silt

231 No. 7th Street / P.O. Box 70 / Silt, CO 81652
Phone: 970-876-2353 / Fax: 970-876-2937

February 9, 2004

Garfield County Building and Planning
Attn: Mr. Mark Bean, Director
108 8th Street, Suite 201
Glenwood Springs, CO 81601

Dear Mark:

Thank you for discussing with me the project known as "The Rapids", a proposed subdivision within Garfield County. I understand that the project is platted for thirty-three (33) units currently, and that the applicant, Mr. Gene Hilton, wishes to increase the density.

Mr. Gene Hilton and Mr. Russell Talbott approached the Town regarding potential attachment to the Town's wastewater collection and treatment system, recently extended by the Re-2 School District to the Coal Ridge High School, a mile and a half east of Silt, along State Highway 6. Mr. Hilton explained that the sewer line could be aligned along the Lower Cactus Valley Ditch, south of Highway 6, until a point just south of the high school property, a distance of 3.5 miles. He claimed that there were even grants available for the Town to apply for in assisting with this type of construction of a regional wastewater system. Mr. Hilton also stated that the developments are within five (5) miles from the Silt Town limits. Finally, Mr. Hilton claimed that the Apple Tree Mobile Home Park could also be attached to the sewer line, and the two projects could pay the Town up-front for that capacity within our system that Stillwater PUD had not yet fulfilled.

After reading Mr. Hilton's report on the contents of this meeting, there are some items that Mr. Hilton misinterpreted. The Town staff informed Mr. Hilton and Mr. Talbott that the cost of an out-of-town sewer tap is $10,500 (triple the normal tap fee of $3,500, not $3,700), and no mention was made about tap fees increasing by 6% each year. Staff advised Mr. Hilton and Mr. Talbott that the current rate for in-town wastewater service is $39.22 per month, and escalates at a rate of 6% on January 1, 2004 and on January 1, 2005, and then 3% each year thereafter. Out-of-town wastewater service is double the in-town rate, not triple.

Staff mentioned that there was a cost recovery to the School District for the pipe that the District is installing (1.5 miles, not 3.5 miles), and that the cost recovery was based on the amount of capacity that each proposed development would use, in terms of the impact

of the development versus the size of the pipe. It is unclear where Mr. Hilton arrived at the $35/foot times 3.5 miles, for a total of $323,400, since no figure was ever discussed.

Mr. Hilton stated that the best location for installation of a sewer line would be the Lower Cactus Valley Ditch Easement, south of State Highway 6. Mr. Hilton states that the ditch company would not allow sewer lines in the ditch easement, but the Town has no knowledge that the ditch could forbid this alignment. And, while this may be the best location for Mr. Hilton, it appears from the Town's perspective that relatively few parcels could tap on, and therefore would not be a cost efficient venture for the Town, meaning that the Town would be responsible for a lot of sewer line with relatively few users to help pay the monthly maintenance bill. This alignment could present a messy maintenance situation for the Town in the run-off months, as well. Mr. Hilton indicated that he had no desire to maintain 3.5 miles of collection main, and Silt citizens should not be unduly burdened either. Additionally, the Town of Silt would not likely apply for grants to install collection lines that would benefit residential units, as the chance for receiving such a grant would be extremely small in light of the current economy. Both Mr. Hilton's parcel and the Apple Tree Park are in excess of five (5) miles from the Town of Silt boundaries, in most developed locations, and little less than five (5) miles from the Stillwater PUD eastern edge, although no utilities are in that location and are not proposed in that location for some time. It would appear that New Castle and these developments could more easily form a symbiotic relationship.

Philosophically, the Town of Silt supports a regional wastewater treatment system, and the Town appreciates the County's efforts in limiting density in County subdivisions that may affect other Town infrastructure, such as roads, bridges and interchanges. Wastewater systems are extremely expensive, need round-the-clock maintenance and require a certified operator. The Town of Silt would encourage further communication with the developer and the County regarding this issue.

Thank you for this opportunity for the Town of Silt to comment on this project. Should you have any questions, please do not hesitate to call Monday through Friday, from 8 a.m. to 5 p.m.

Sincerely,

Janet G. Steinbach
Community Development Director

CC: Board of Trustees; Richard J. Aluise, Town Administrator; file

EXHIBIT "D"

MEMORANDUM OF UNDERSTANDING

THIS MEMORANDUM OF UNDERSTANDING, made this 15TH day of APRIL, 2005, by and among the TOWN OF NEW CASTLE, a municipal corporation with its principal office at 450 West Main Street, New Castle, Colorado 81647 (hereinafter the "Town"), THE RAPIDS DEVELOPMENT CORPORATION, and THE RAPIDS ON THE COLORADO HOMEOWNERS ASSOCIATION (the "HOA"), both Colorado corporations having its principal office and place of business at 2102 West Arapahoe Drive, Littleton, Colorado 80120-3008 (hereinafter collectively "Rapids").

WHEREAS, Rapids owns certain real property situate in the County of Garfield, Colorado, consisting of approximately ninety-seven (97) acres, as well as the right to acquire an adjoining parcel consisting of approximately twenty-four (24) acres; and

WHEREAS, in September of 1997, Garfield County approved Rapids' plat for a subdivision comprised of thirty-three (33) single family residential lots to be known as The Rapids on the Colorado (hereinafter the "Project"), which plat is recorded in the office of the Clerk and Recorder of Garfield County, Colorado as Reception No. 513353; and

WHEREAS, in accordance with such approval, Rapids completed the public improvements for the contemplated subdivision, including roads, water, natural gas, telephone, electricity, fire protection and drainage, with sewer service to be provided by individual sewer disposal systems; and

WHEREAS, Rapids now desires to file an application for a PUD with Garfield County in order to replat the Project property together with the adjoining parcel consisting of approximately twenty-four (24) acres, or a total of one hundred twenty-one (121) acres, as a PUD comprised of one hundred twenty-one (121) single family residential units; and

WHEREAS, in order to obtain the approval of Garfield County for a PUD, the subdivision must be serviced by a central waste water treatment system; and

WHEREAS, Rapids has prepared and submitted to the Garfield County Board of County Commissioners (hereinafter the "BOCC") a site application dated December, 2003 for such a central waste water treatment service facility (hereinafter the "Facility") for the Project pursuant to CRS §25-8-502, *et seq.*; and

WHEREAS, the site application for the Facility approval was sent to the Town in its capacity as a referral agency with a sewer system within three (3) miles of the Project; and

WHEREAS, the Town expressed concerns about the site application density as originally submitted; and

WHEREAS, Rapids amended its application to the BOCC by amendment dated March 29, 2004; and

WHEREAS, the Project is within the Town's three (3) mile planning area as set forth in C.R.S. §31-12-105; and

WHEREAS, Rapids seeks the cooperation of the Town in its site application to the Colorado Department of Health and Environment (hereinafter the "CDPHE") and a recommendation from the Town to the BOCC that they recommend to the CDPHE that the application be approved; and

WHEREAS, the parties desire to enter into this Memorandum of Understanding to reflect certain agreements and understandings among them.

NOW, THEREFORE, in consideration of the mutual covenants and promises contained herein, and for other good and valuable consideration, the parties hereto agree as follows:

1. Subject to the provisions of this Memorandum of Understanding, the Town shall consent to and recommend to the BOCC that it recommend approval of the site application for the Facility.

2. Rapids agrees that the proposal to be submitted to Garfield County for the replatting of its entire one hundred twenty-one (121) acre parcel as referred to above as a PUD shall not contain more than one hundred twenty-one (121) single family residential units, and uses for trails, open space, roads, ponds, utility easements, water storage tanks, waste water treatment facility, pipelines, irrigation ditches, lines and facilities, water wells, recreational facilities, community facilities and other uses approved by the HOA from time to time, and shall conform substantially to the sketch plan map attached hereto as Exhibit "A." The Town agrees that many elements of such proposed PUD, including clustering, dedication of open space, preserving the hillside as open space and the like

are consistent with its Comprehensive Plan, although not in strict compliance with such Plan as to density. The Town supports the PUD because of its substantial compliance with its Comprehensive Plan as noted above, the provision for a public trail with river access, and the provision of a waste water treatment facility with proposed use as provided herein; *provided, however*, that any such support is contingent upon compliance by Rapids with the provisions of this paragraph and, further, so long as the PUD proposal is consistent with the following conditions:

a. Rapids specifically agrees that it shall, as generally depicted on Exhibit A attached hereto, dedicate to public use a defined trail (the "Trail"), not less than four access points ("Access Points") between the Trail and a fifteen- foot wide river trail ("River Trail") to and along the water line of the Colorado River, as it may seasonally fluctuate, for fishing and other non-commercial and non-hunting recreational purposes during a time period commencing thirty (30) minutes before sunrise and ending thirty (30) minutes after sunset, and shall provide nine (9) public parking spaces within the Project for such purposes. Maintenance and repair of the Trail, Access Trail, River Trail and the public parking area shall be the responsibility of the HOA.

It is specifically agreed that the Trail shall be located a minimum of ten (10) feet from the rear lot lines of the residential lots in the Project. Fences, not higher than five (5) feet, may be constructed by the HOA and/or lot owners along the lot lines abutting the Trail. Fences not in excess of four (4) feet in height may be constructed outside individual lot lines within the dedicated open space to protect landscape features, provided that such fences in the open space do not unreasonably impede public access. The Trail shall be not less than six (6) feet wide, shall be initially composed of four (4) inch compacted road base, and may be modified by the HOA to provide a hardened surface to encourage use by the elderly and those who are confined to a wheelchair.

The foregoing Trail, Fishing Trail and Access Points shall be shown on the final plat with appropriate plat notes.

b. As part of the PUD approval, Rapids specifically agrees that the open space tract ("Open Space Tract") located south of County Road 335 and west of County Road 312 shall remain as open space in perpetuity. The Town and Rapids acknowledge that the following uses shall be allowed on the open space tract:

(1) Leases, agreements, reservations, easements and rights of way of record.

(2) Additional water well(s) and water storage facilities and equipment for Rapids, including access, utilities and W-3262 underground water augmentation plan pipeline and associated controls and equipment.

(3) Existing access roads

Nothing herein shall be deemed to affect the rights of third parties who have easements or reserved rights concerning the open space tract.

The foregoing Open Space Tract shall be shown on the final plat with appropriate plat notes.

c. The parties agree that all road impact fees in excess of those already expended by Rapids shall, unless otherwise directed by the BOCC, be applied to additional improvements to County Road 335. It is further agreed that Rapids shall propose to the BOCC that the balance of the Road Impact Fees to be paid by Rapids shall be utilized for improvements to CR 335 based upon recommendations to be made jointly by engineers representing the Rapids, the Town and Garfield County.

The parties specifically acknowledge that Rapids has previously expended the sum of One Hundred Eighteen Thousand Two Hundred Six Dollars ($118,206.00) as impact fees, prior to adjustment for inflation, for the 33 approved existing lots, which funds were used to reconstruct and pave a one-half mile section of CR 335 adjacent to The Rapids on the Colorado subdivision, and that no traffic impact fees shall be due for 33 of the proposed 121 lots.

d. The parties acknowledge that the waste water treatment facility site provided within the Project is sufficient in size to accommodate wastewater treatment for approximately one hundred (100) acres of privately owned land adjacent to the Project and Apple Tree Mobile Home Park. Any expansion of the proposed Facility is dependent upon approval of an application to expand the facility by the Colorado Department of Public Health and Environment based upon various factors, including but not limited to comments from adjacent

municipalities, residents and the recommendation by the Board of County Commissioners of Garfield County, Colorado. In the event such an expansion is approved by the State of Colorado, a service contract to provide waste water treatment to properties located south of the Colorado River and outside the Project would require such properties proposed to be served to provide:

(1) Liability insurance for potential damages caused by offsite pollutants introduced into the plant system.

(2) An agreement to hold Rapids harmless for all costs or liability resulting from damages associated with facilities or services for waste water treatment originating from properties not owned or acquired by Rapids.

(3) Cash payments shall be made in advance for all expansion expenses to be incurred by Rapids, its successors or assigns, including but not limited to engineering and legal fees, administrative costs, utility modifications, modifications to the existing plant necessitated by the expansion, and expenses of any kind or nature associated with the expansion. It is specifically acknowledged that the expenses of expansion to provide service to properties outside the Project shall include any and all overruns by subcontractors or consultants;

(4) An agreement that provides that maintenance, repair and replacement of all collector lines, lateral lines and associated facilities within adjacent properties or within Apple Tree Mobile Home Park shall be the sole responsibility of the adjacent property owners or of Apple Tree Mobile Home Park, unless otherwise agreed by Rapids in the service contract;

(5) Tap fees and services charges for wastewater treatment provided to properties outside the Project (Apple Tree, Mountain Shadows and adjacent properties) shall be at rates acceptable to both parties.

Notwithstanding anything contained herein to the contrary, no connection to the Facility by any third party shall be permitted without the written consent of the Town, *provided however*, that such consent shall not be unreasonably withheld if the proposed land use is consistent with the

Comprehensive Plan for the Town.

4. NOTICE. All notices required or appropriate under this Agreement shall be in writing and shall be hand delivered or sent by certified mail, return receipt requested, postage prepaid, to the addresses of the parties herein set forth. All notices so given shall be considered effective seventy-two (72) hours after deposit in the United States Mail with the proper address as set forth below. Either party by notice so given may change the address to which future notices shall be sent.

Notice to the Town:	Town of New Castle 450 West Main Street New Castle, Colorado 81647
Notice to Rapids:	The Rapids Development Corporation 2102 West Arapahoe Drive Littleton, Colorado 80120-3008
Notice to the HOA:	The Rapids on the Colorado Homeowners Assn. 2102 West Arapahoe Drive Littleton, Colorado 80120-3008

5. FINAL AGREEMENT. This Agreement supersedes and controls all prior written and oral agreements and representations of the parties, and is the total integrated agreement among the parties.

6. MODIFICATIONS. This Agreement shall not be amended or modified, except by subsequent written agreement of the parties.

7. INTERPRETATION. This Agreement shall be construed in accordance with the law of the State of Colorado.

8. TERMINATION. If the Rapids has not obtained final approval from Garfield County of the replatting of the proposed one hundred twenty-one (121) acres parcel into at least 121 residential lots as a PUD within two (2) years from the date of this Memorandum of Understanding, then this Memorandum of Understanding shall terminate and its provisions be rendered null and void.

IN WITNESS WHEREOF, the parties hereto have executed this Memorandum of Understanding on the day and year first above written.

THE TOWN OF NEW CASTLE
GARFIELD
SEAL
COUNTY
COLORADO

TOWN OF NEW CASTLE

By _____

Attest:

_____
Town Clerk

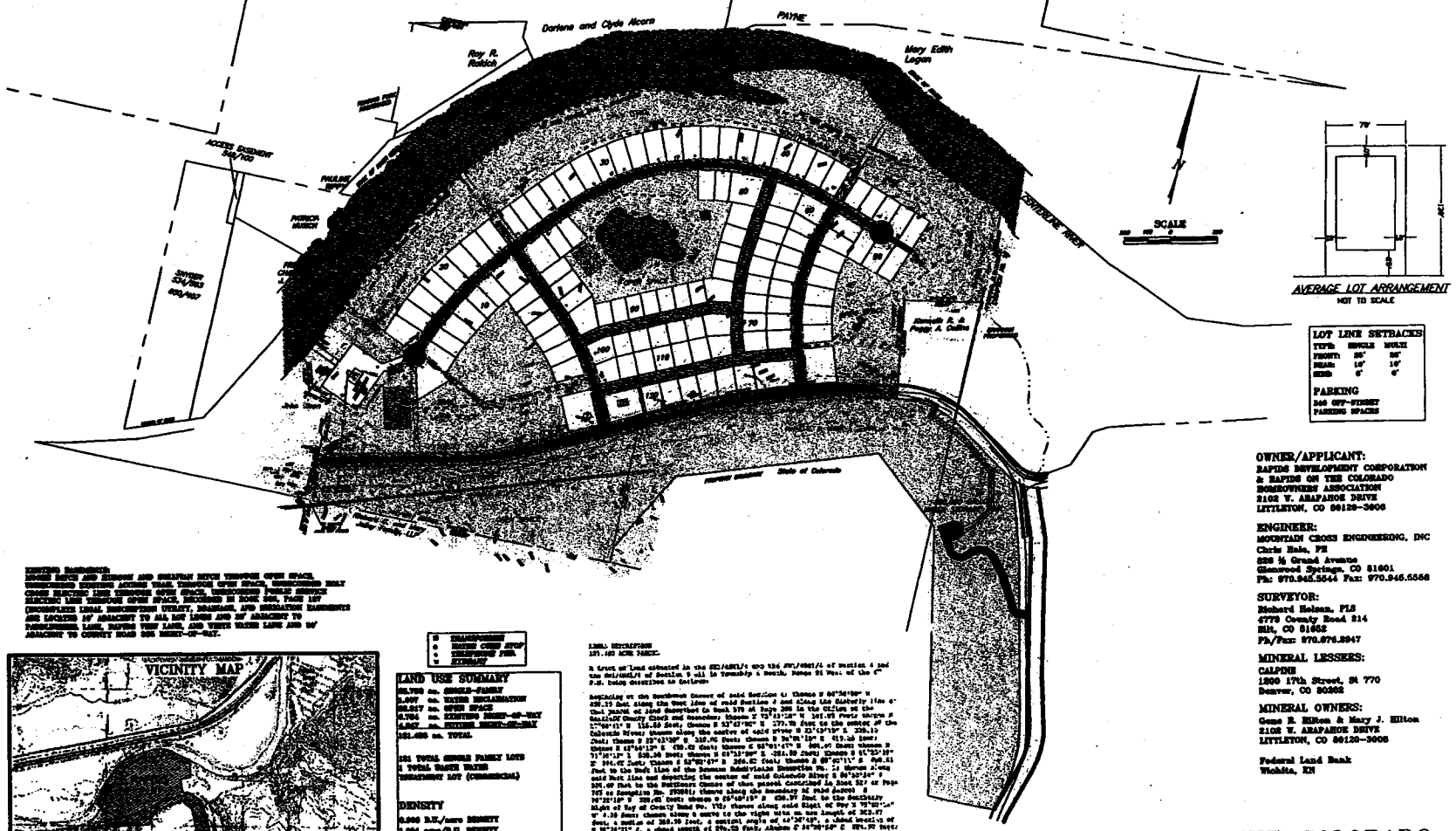
THE RAPIDS DEVELOPMENT CORPORATION

By _____
Gene R. Hilton, President

THE RAPIDS ON THE COLORADO HOMEOWNERS ASSOCIATION

By _____
Gene R. Hilton, Chairman

EXHIBIT "B"



THE RAPIDS ON THE COLORADO

SW 1/4 SEC. 4, SE 1/4 SEC. 5 & NE 1/4 SEC. 9
T6S, R91W OF THE 6TH P.M.
GARFIELD COUNTY, COLORADO

MOUNTAIN CROSS ENGINEERING, INC.
Civil and Environmental Consulting and Design
238 1/2 Grand Avenue Glenwood Springs, CO 81601

The RAPIDS on the COLORADO
Planned Unit Development
SKETCH PLAN

REVISIONS			
NO.	DATE	BY	COMMENTS

DATE 04/14/0
SCALE Not to Sc
ENGINEER C. HALI
DWG FILE 194rev12-12-
JOB 423
SHEET 1

EXHIBIT "E"

MARTIN / MARTIN
CONSULTING ENGINEERS

TELEPHONE CONVERSATION RECORD

Call From:	**Dwain Watson, CDPHE Grand Junction**	Date	January 24, 2004 Rev
To:	**Jeremy Montrose**	Time:	3:45 ☐ am ☒ pm
Copy To:	Roger Smades	Project No.:	16454.C.01
		Project Title:	Rapids on the Colorado

Discussion:

Dwain had the following preliminary comments regarding the Site Application submitted to him earlier this week.

1. He first requested that I send him the PELs which I had received from the Permits Unit this week. I faxed them to him this afternoon.
2. He requested a drawing which shows the floodplain boundary clearly along with the precise location of the wastewater treatment facility.
3. He requested a letter of credit certifying that the Rapids Development Corporation has the necessary funds to construct the facility.
4. He stated that any special district to be formed, must be complete prior to final submission of the Site Application.
5. He asked how close the nearest residence will be located to the treatment facility, and reminded me that there is a 100' setback requirement assuming that the treatment facility will be enclosed in a building. If the facility is not enclosed in a building, the setback requirement is 1000'.
6. Since the setback requirement is so great for a non-enclosed facility, the owner will almost definitely need to cover the facility. Therefore, the costs associated with these added buildings must be added to the cost estimates.
7. The cost for a polishing pond, filter (such as Dynasand) or emergency storage basin (as required by design criteria 5.14.10) must be added to the cost estimate.
8. He stated that we should be using 350 gpd/tap rather than 250 gpd.
9. He informed me that Silt's new boundary lies within three miles of the Rapids site, and therefore Silt must provide review comments on the Site Application.
10. He then informed me that full infrastructure and the Silt town boundary have been expanded to within three miles of the Rapids site. The new Garfield County High School to be called Coal Ridge is on the south side of the south I-70 frontage road and on the north side of the river at Davis Point which lies at approximately between sections 10 and 11. That means that he would like to see the option of consolidation with Silt examined more thoroughly. The existing sewer line at Davis Point is 15", which will easily accept our flows. The design capacity of the Silt plant is 0.750 MGD, and they are only operating at approximately 0.160 MGD, so there is ample capacity as well. Dwain also gave some new numbers to be used in this consolidation option, which he feels are much more appropriate cost information. He stated that the force main can be installed for $15-20/foot, and that Silt's tap fees are only $3000/tap. This dramatically decreases the cost associated with this consolidation option, but there is the added cost of constructing the river crossing.
11. He further stated that we should work harder to convince Talbott to coordinate with us for the development of this lift station to tie in to Silt. He stated that they are on a compliance schedule, and the re-lining of the lagoons is likely going to be far more expensive than the Talbott's expect. Therefore, they may be more amenable to consolidation once they realize the extent of that cost. The lift station on our property would possibly be able to take gravity flow from Talbott and the tap fees to Silt would probably be bargained

The above is considered correct unless response to the contrary is received within 7 days from date above.

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down if, between both entities, they were offering Silt over 500 taps. Another benefit to this option is that it would take both the Rapids and Apple Tree (Talbott) out of the sewage business completely.

In summary, Dwain feels that we have more work to do prior to the Site-Ap being considered complete. So hopefully we can sit down and discuss all these items as soon as possible on Monday.

JJM

Revised 1/26/04 per the following:

Item 10. The Coal Ridge High School is actually on the north side of Interstate 70, but the 15" interceptor is located on the south side of the south frontage road.

Addition:

The Stillwater PUD, approximately 1500 taps is a development that has been placed on hold, which is partially why the Town of Silt WWTF is currently operating so far under capacity.

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EXHIBIT "F"

LEGAL DESCRIPTION
121.488 ACRE PARCEL

A tract of land situated in the SE1/4SW1/4 and the SW1/4SE1/4 of Section 4 and the NW1/4NE1/4 of Section 9 all in Township 6 South, Range 91 West of the 6th P.M. being described as follows:

Beginning at the Southwest Corner of said Section 4; thence N 00°50'00" W 438.10 feet along the West line of said Section 4 and along the Easterly line of that parcel of land described in Book 570 at Page 266 in the Office of the Garfield County Clerk and Recorder; thence N 75°43'18" W 101.89 feet; thence N 17°08'41" W 115.59 feet; thence N 53°47'08" W 177.75 feet to the center of the Colorado River; thence along the center of said river N 23°43'15" E 339.10 feet; thence N 23°43'20" E 310.00 feet; thence N 35°08'15" E 419.25 feet; thence N 42°56'13" E 499.62 feet; thence N 65°01'47" E 404.40 feet; thence N 71°35'12" E 503.50 feet; thence N 84°15'20" E 284.99 feet; thence S 81°33'38" E 244.41 feet; thence S 58°02'47" E 266.82 feet; thence S 68°42'11" E 480.81 feet to the West line of the Brannan Subdivision Exemption No. 1; thence along said West line and departing the center of said Colorado River S 00°50'54" E 520.60 feet to the Northeast Corner of that parcel described in Book 527 at Page 743 as Reception No. 293881; thence along the boundary of said parcel S 78°22'10" W 328.61 feet; thence S 08°40'15" E 430.97 feet to the Southerly Right of Way of County Road No. 335; thence along said Right of Way N 79°02'15" E 4.10 feet; thence along a curve to the right with an arc length of 303.67 feet, a radius of 389.99 feet, a central angle of 44°36'48", a chord bearing of S 78°39'21" E, a chord length of 296.05 feet, thence S 56°20'56" E 284.92 feet; thence along a curve to the left with an arc length of 67.52 feet, a radius of 191.32 feet, a central angle of 20°13'15", a chord bearing of S 66°27'34" E, a chord length of 67.17 feet, thence departing said Right of Way S 17°47'53" E 308.48 feet; thence S 12°52'36" E 736.29 feet; thence along a curve to the right with an arc length of 236.48 feet, a radius of 548.35 feet, a central angle of 24°42'34", a chord bearing of S 00°31'19" E, a chord length of 234.65 feet, thence S 11°49'58" W 141.56 feet; thence S 89°30'00" W 318.77 feet; thence N 11°30'00" W 1150.00 feet; thence N 49°30'00" W 395.00 feet; thence S 70°45'00" W 870.00 feet; thence S 29°00'00" W 414.95 feet; thence S 00°14'42" E 64.14 feet; thence S 89°20'08" W 1308.98 feet; to the Point of Beginning containing 121.488 Acres.

Silt - New Castle Vicinity Map

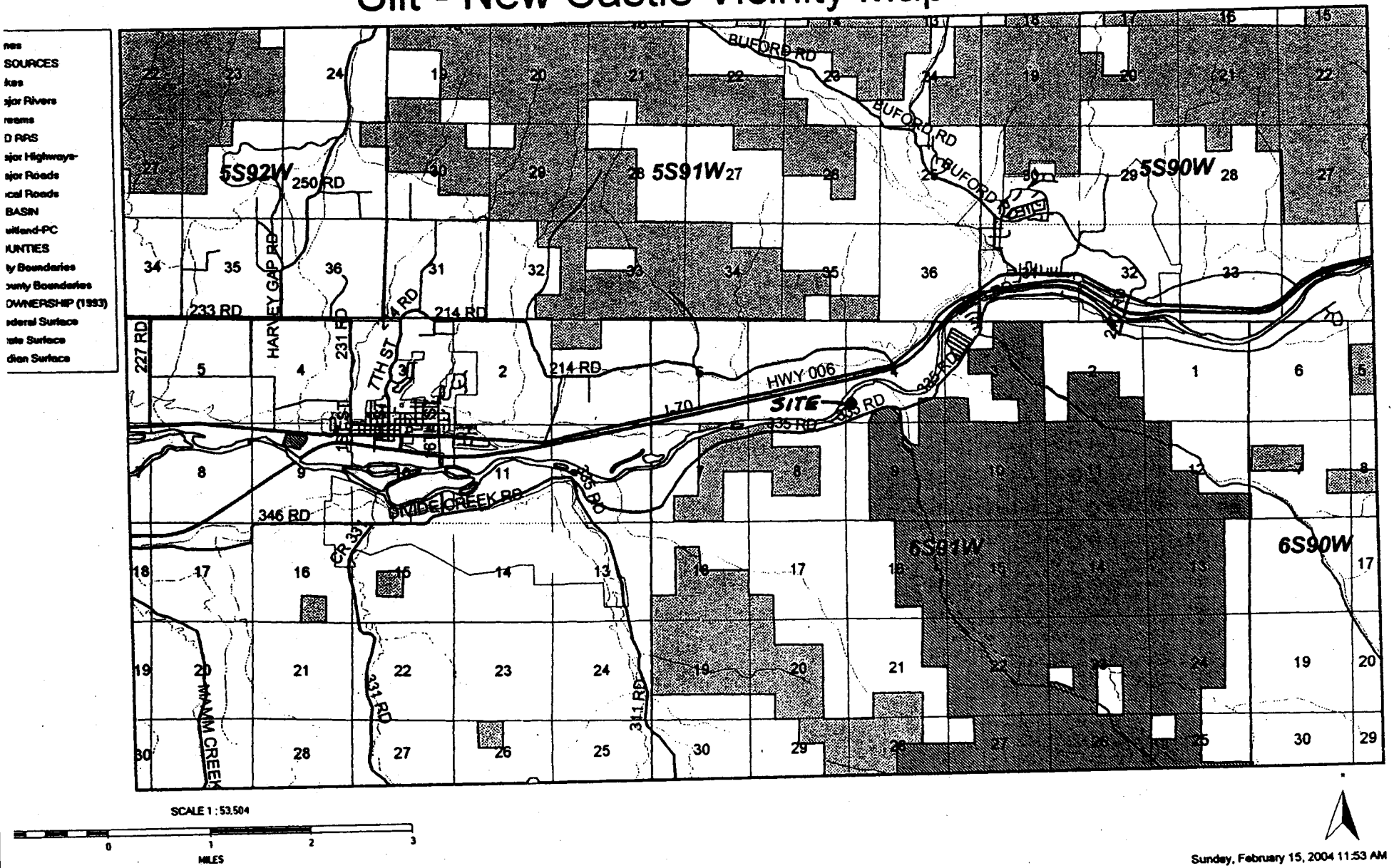


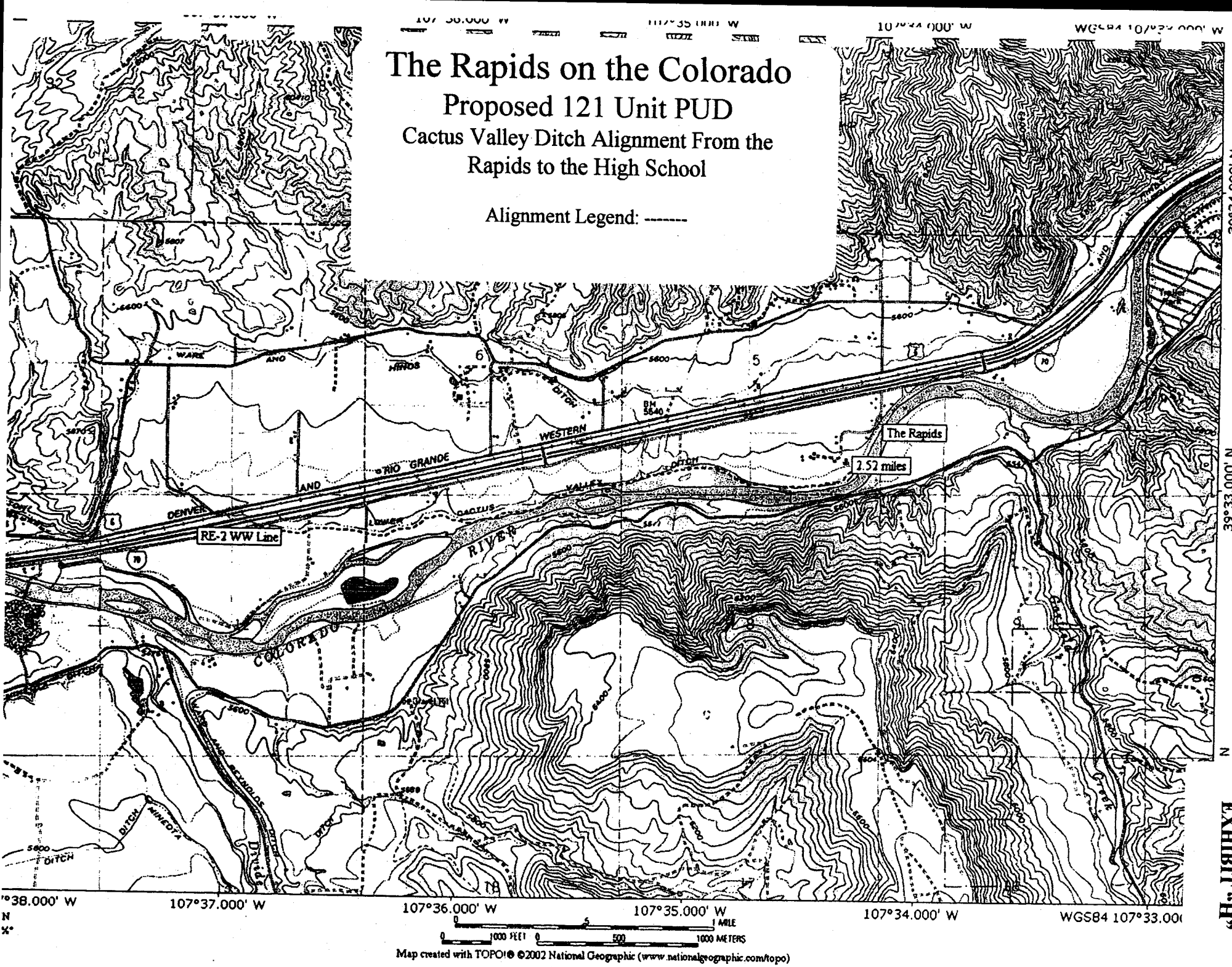
EXHIBIT "G"

The Rapids on the Colorado

Proposed 121 Unit PUD

Cactus Valley Ditch Alignment From the Rapids to the High School

Alignment Legend: -------



Map created with TOPO!® ©2002 National Geographic (www.nationalgeographic.com/topo)

EXHIBIT "H"

ATTACHMENT 3

Site Location Application and Report Wastewater Treatment Facility - The Rapids on the Colorado

Prepared By Martin / Martin Consulting Engineers

ATTACHMENT 3

MARTIN / MARTIN
CONSULTING ENGINEERS

SITE LOCATION APPLICATION AND ENGINEERING REPORT

WASTEWATER TREATMENT FACILITY
THE RAPIDS ON THE COLORADO
GARFIELD COUNTY, COLORADO

SITE LOCATION APPLICATION AND ENGINEERING REPORT

WASTEWATER TREATMENT FACILITY
THE RAPIDS ON THE COLORADO
GARFIELD COUNTY, COLORADO

DECEMBER, 2003

PROJECT NO. 16454.C.01

PREPARED BY:

MARTIN/MARTIN, INC.
12499 WEST COLFAX AVENUE
PO BOX 151500
LAKEWOOD, COLORADO 80215
(303) 431-6100

PREPARED FOR:

THE RAPIDS DEVELOPMENT CORPORATION
2102 WEST ARAPAHOE DRIVE
LITTLETON, COLORADO 80120-3008

PRINCIPAL-IN-CHARGE: ROGER SMADES, P.E.

EXECUTIVE SUMMARY

MARTIN/MARTIN has been retained to prepare a "Site Location Application" and "Engineering Report" for the Rapids Development Corporation for a proposed wastewater treatment facility located in Garfield County, Colorado. This new facility is required to provide central wastewater treatment for an approved platted subdivision as opposed to many individual sewage disposal systems (ISDS). The owner is in the process of rezoning the property to PUD at two units per acre. The zoning regulations of Garfield County, Colorado provides for the density to be increased above the underlying zoning.

The subdivision, as proposed, will consist of a total of one hundred ninety four (194) dwelling units being constructed over a phased market demand build-out schedule. The development will not include any commercial or industrial users to be connected to the proposed wastewater treatment facility. The development will be located in the SW ¼ of Section 4 and the SE ¼ of Section 5, T6S, R91W, 6th P.M., Garfield County, Colorado.

The Sequencing Batch Reactor (SBR) is the recommended wastewater treatment process. It is proposed that the treatment facility will include preliminary treatment (headworks), one SBR unit, post equalization basin, ultra violet (UV) disinfection, and aerobic sludge holding for a design flow of 0.060 MGD at a construction cost of approximately $600,000. The annual operating and maintenance (O&M) cost estimate in 2003 dollars will be approximately $72,740. The generated biosolids will be hauled off-site, for treatment, reuse or disposal, by a state licensed contractor.

The Rapids Development Corporation will finance the construction of the wastewater treatment facility. Upon completion of construction and certification that the facility is operating properly, Rapids Development Corporation and The Rapids on the Colorado Homeowners Association will initiate the formation of a special district to operate the existing Rapids water systems and the proposed wastewater treatment facility and will provide the annual O&M moneys required for facility operation. The Rapids Development Corporation will hire a state certified wastewater treatment and collection system operator to operate, maintain, and manage the proposed wastewater treatment facility. The operator will report directly to the president of the Rapids Development Corporation until the special district is formed and in operation.

SITE APPLICATION COMPLETENESS CHECKLIST
Construction of New Domestic Wastewater Treatment Plants

Name of Project: Rapids on the Colorado
Applicant Name and Address: Rapids Development Corporation, Gene R. Hilton, President
2102 W. Arapahoe Dr., Littleton, CO 80120-3008
Consultant Name and Address: Martin/Martin Inc., Roger H. Smades, Principal
12499 W. Colfax, PO Box 151500, Lakewood, CO 80215
Type of Project: New Wastewater Treatment Facility to serve the Rapids on the Colorado Subdivision

Section	Elements	Addressed on Submittal Page (Applicant)	Complete (Division)
22.4(1)	Application submitted on proper form with recommended action by all applicable local authorities and planning agencies	Appendix K	
22.4(1)(b)	Adequate engineering report describing the proposed new domestic wastewater treatment plant and showing the applicants capabilities to manage and operate the facility over the life of the project. The engineering report shall address at a minimum items i through xiii below.	Pages 1 – 8 and Appendices A-O	
22.4(1)(b)(I)	Service area definition including existing and projected population, site location, staging or phasing, flow/loading projections, and relationship to other water and wastewater treatment plants in the area	Report Section II, Pages 1 and 2	
22.4(1)(b)(ii)	Proposed site location, evaluation of alternative sites, and evaluation of treatment alternatives	Report Section VIII, Page 3	
22.4(1)(b)(iii)	Proposed effluent limitations as developed in coordination with the Division	Report Section III, Page 2 and Appendix F	
22.4(1)(b)(iv)	Analysis of existing facilities within service area(s)	Report Section XIV, Page 7	
22.4(1)(b)(v)	Analysis of opportunities for consolidation of treatment works in accordance with the provisions of 22.3(1)(c), including those recommended in the water quality management plan, unless the approved water quality management plan recommends no consolidation.	Report Section XIV, Page 7	
22.4(1)(b)(vi)	Evidence that the proposed site and facility operations will not be adversely effected by floodplain or other natural hazards. Where such hazards are identified at the selected site, the report shall describe means of	Report Section IV, Page 2 and Appendix I	

	mitigating the hazard.		
22.4(1)(b)(vii)	Evidence shall be presented in the form of a report, containing soils testing results and design recommendations and prepared by a Professional Geologist and a Geotechnical Engineer, or by a professional meeting the qualifications of both Professional Geologist and Geotechnical Engineer, with an appropriate level of experience investigating geologic hazards, stating that the site will support the proposed facility.	Report Section VII, Page 3 and Appendix L	
22.4(1)(b)(viii)	Detailed description of selected alternatives including legal description of the site, treatment system description, design capacities, and operational staffing needs.	Report Sections II, VIII and XIII, Appendix C	
22.4(1)(b)(ix)	Legal arrangements showing control of the site for the project life or showing the ability of the entity to acquire the site and use it for the project life.	Report Section XI and Appendix C	
22.4(1)(b)(x)	Institutional arrangements such as contract and/or covenant terms which will be finalized to pay for acceptable waste treatment.	Sewer tap fees are outlined in Report Section IX, Page 5	
22.4(1)(b)(xi)	Management capabilities for controlling the wastewater loadings within the capacity limitations of the proposed treatment works, i.e., user contracts, operating agreements, pretreatment requirements and/or the management capabilities to expand the facilities as needed (subject to the appropriate, future review and approval procedures).	Report Section XIII, Page 7	
22.4(1)(b)(xii)	Financial system which has been developed to provide for necessary capital and continued operation, maintenance, and replacement through the life of the project. This would include, for example, anticipated fee and rate structure.	Report Section XII, Page 7	
22.4(1)(b)(xiii)	Implementation plan and schedule including estimated construction time and estimated start-up date.	Report Section XV, Page 8	
22.4(1)(c)	Where the site application indicates that a discharge to a ditch or other manmade conveyance structure is contemplated for the proposed plant, or that an easement, right-of-way or other access onto or across private property of another person may be necessary to construct the facility or to effectuate the discharge, the applicant shall furnish to the Division evidence that a notice of the intent to construct a new domestic wastewater treatment plant has been provided to the	N/A	

	owner of such private property.		
22.4(2)(a)	Review comments on the site application and associated engineering reports by the management agency, if different from other entities listed below	N/A	
22.4(2)(b)	Review comments on the site application and associated engineering reports by the county if the proposed facility is located in the unincorporated area of a county. The county, through its commissioners or its designee, is requested to review and comment upon the relationship of the treatment works to the local long-range comprehensive plan for the area as it affects water quality, proposed site location alternatives including the location with respect to the flood plain, and capacity to serve the planned development.	Appendix K	
22.4(2)(c)	Review comments on the site application and associated engineering reports by the city or town if the proposed facility is to be located within the boundaries of a city or town or within three miles of those boundaries if the facility is to be located in an unincorporated area of the county. The city or town, through its mayor, council or its designee, is requested to review and comment upon the relationship of the treatment works to the local comprehensive plan and/or utility plan for the community as it affects water quality, proposed site location alternatives including the location with respect to the flood plain, and capacity to serve the planned development.	Appendix K	
22.4(2)(d)	Review comments on the site application and associated engineering reports by the local health authority is requested to review and comment on local issues, policies and/or regulations related to public health safety and welfare as affected by the proposal.	N/A, County	
22.4(2)(e)	Review comments on the site application and associated engineering reports by the water quality planning agency, if designated or if such function has been delegated by the State, with regard to the consistency of the proposed treatment plant to the water quality management plan	N/A	
22.4(3)	If the proposed facility will be on or adjacent to any land owned or managed by a state or federal agency, a copy of this application shall be sent to such agency. Their review comments should be included with the site application.	N/A	
22.4(6)	A picture of the public notification sign.	Appendix N	

TABLE OF CONTENTS

APPENDICES

I. GENERAL INFORMATION and PURPOSE

Martin/Martin has been retained by the Rapids Development Corporation to compile various information prepared by others and prepare, submit and process a Site Location Application and Engineering Report, through the State Water Quality Control Division, and local governmental agencies for review and approval.

The purpose of this document is to provide information to all reviewing agencies for the proposed construction of a wastewater treatment facility located in the SW ¼, Section 4, Township 6 South, Range 91 West of the Sixth Principal Meridian, Garfield County, Colorado. The proposed development serviced by this wastewater treatment facility will be fully residential, and will be called The Rapids on the Colorado.

II. SERVICE AREA & PROPOSED SITE LOCATION FOR WWTF

Proposed Service Area

The proposed WWTF will be designed to accommodate full build-out flows for the described ninety seven (97) acres of planned residential development and will be expandable for a future sixty four (64) acre parcel located to the southeast of the planned developed property. Other adjoining property has been approved by Garfield County for subdivision exemptions.

At the present time the existing population is zero, with a full projected build-out population of 485 by the year 2010, depending on market driven sales. A planning build-out schedule for development is as follows:

Year	Dwelling Units Built
2004	30
2005	30
2006	30
2007	40
2008	40
2009	24
	194 Units total

Phasing, Siting and Flow Projections

The proposed WWTF will have a design capacity of 0.060 MGD, and will be located on the southwest open space area of the 97 acre parcel of land that is proposed to be developed by the Rapids Development Corporation. The property is situated in the SW ¼ of Section 4 and the SE ¼ of Section 5, Township 6 South, Range 91 West of the Sixth Principal Meridian, Garfield County, Colorado.

Flow projections for the full build-out of 194 residential units at 250gpd = 48,500gpd average. Peak Hourly flow at peaking factor of 3 => 145,500 gallons.

Other wastewater treatment facilities within a five mile radius of the proposed Rapids WWTF are:

Town of New Castle – Approximately 2.5 miles northeast, upstream and across the Colorado River.

Apple Tree Mobile Home Community – Approximately 1.5 miles northeast and upstream along the Colorado River.

There are no other existing wastewater treatment facilities in the proposed development service area. A brief analysis of the facilities within a five mile radius (including Silt which is greater than five miles) is included in section XIV, in accordance with 22.3(c) for the purpose of possible consolidation of facilities.

Water Supply

Wright Water Engineers has prepared a complete Water Supply Analysis in accordance with the proposed rezoning of the Rapids on the Colorado subdivision. The results of this analysis are included in Appendix E.

III. PROPOSED EFFLUENT LIMITATIONS

Effluent parameters have been requested from the permits section of the Water Quality Control Division's staff. A copy of the letter of request, with attachments, to the Permits Unit of the WQCD as well as a table showing the anticipated effluent limits is included in Appendix F. The response identifying the preliminary effluent limitations will be forwarded to all appropriate parties upon receipt.

IV. FLOODPLAIN / NATURAL HAZARDS

The majority of the subdivision lies above the 100-year flood plain of both Garfield Creek and the Colorado River as defined in the Flood Plain Study prepared for Garfield and Mesa Counties on Map No. C-18 dated December 1982, included in Appendix I. Site grading of the existing Rapids on the Colorado 33-lot subdivision has been certified to eliminate the floodplain from development areas. There have been no known natural hazards identified on or near the proposed site.

V. WETLANDS

There are no delineated wetlands on the site proposed for the wastewater treatment facility.

VI. CLIMATE

The proposed Rapids on the Colorado residential development lies approximately two miles southwest of the Town of New Castle on the south side of the Colorado River at an elevation of 5500 feet. The area is characterized by moderate winter and spring snowfalls, cold winter temperatures and moderate summers. Monthly climatological data for Glenwood Springs (the closest weather station to New Castle) is included in Appendix G.

VII. GEOTECHNICAL REPORT

The geotechnical report for the area of the proposed wastewater treatment facility was prepared by HP Geotech in March, 2003 and is included in Appendix L.

VIII. TREATMENT ALTERNATIVES

The site chosen for the construction of the proposed WWTF is located in the southwest corner of a tract of land situated in the SW ¼ of Section 4 and the SE ¼ of Section 5, T6S, R91W, 6th P.M., containing 1 acre, more or less. No other sites were evaluated for the WWTF location, due to the topography of the site and vicinity to residents.

Three wastewater treatment alternatives were evaluated. Following are conceptual descriptions of the alternatives considered.

- Alternative 1: Sequencing Bath Reactor (SBR)
- Alternative 2: Activated Sludge Package Plant
- Alternative 3: Aerated Lagoon System

General descriptions of the three wastewater treatment alternatives for the Rapids on the Colorado are presented below.

Common Processes, Systems, or Items to all Wastewater Treatment Alternatives. Processes, systems, or items common to each of the wastewater treatment alternatives include preliminary treatment, UV disinfection, odor control, solids treatment and disposal, and buildings.

- **Preliminary Treatment.** The preliminary treatment system is designed to handle peak hourly flows and includes a grinder, flow measurement, and influent channels for flow diversion.
- **Ultra Violet Disinfection.** A UV disinfection system is included for each alternative. The UV system is sized to handle the peak hourly flow. Benefits of UV disinfection

include operator safety, compact design, environmentally positive (no chemicals), and minimal maintenance requirements.

- **Odor Control.** Odor control and ventilation are included in the preliminary treatment systems, secondary processes, and sludge storage areas for all alternatives.

- **Solids Treatment and Disposal.** Biosolids produced in the wastewater treatment process will be hauled to a certified disposal facility. It is recommended that, due to the small size of the facility, off-site treatment and disposal is a more feasible option. Hauling, treatment, and disposal costs are included in the annual operation and maintenance costs presented later.

- **Standby Power.** A diesel generator will be included for standby power for each alternative.

Detailed Description of Alternatives

Alternative 1: SBR. The SBR system represents a variation of the activated sludge process. The SBR works by developing a mixed culture of bacteria, which is effective in removing BOD, COD, and nutrients commonly found in wastewater. The SBR has the ability to act as an equalization basin, aeration basin, and clarifier within a single reactor.

An SBR can treat flows ranging from a few thousand gallons to millions of gallons per day, and does not allow influent wastewater to enter the reactor during the final aeration, settle and decant phases, thereby creating a high quality final effluent. One of the key benefits of the SBR system is the reuse potential.

This system will be based on a peaking factor of 2. However, if flows exceed the maximum daily flow, the system will advance cycles from six cycles to eight cycles per day, which can accommodate the peak hourly flow with a peaking factor of 4.

Principals of Operation. The SBR utilizes a simple repeated time-based sequence, which incorporates the following sequence:

- Fill – Influent enters for complete mix, then aeration for biological reactions.
- React – Influent flow terminated, while mixing and aeration continues.
- Settle – Settle for solids-liquid separation.
- Decant – Decantable volume removed by means of subsurface withdrawal.

Completion of these four operations in the sequence described above constitutes a cycle, which is then repeated. During the period of a cycle, the liquid level inside the reactor basin rises from a set bottom water level in response to a varying influent wastewater flow rate. Aeration ceases at a predetermined period of the cycle to allow the biomass to flocculate and settle under quiescent conditions. After a specific settling period, the treated effluent supernatant is removed (decanted), using a moving weir decanter. This operation returns the liquid level in the reactor

basin to the bottom water level. Surplus solids are wastes, as required, to maintain the biomass mixed liquor suspended solids (MLSS) at the required level.

Although SBRs include flow equalization, a post flow equalization basin will be proposed to provide a constant flow rate through the UV disinfection system.

Alternative 2: Activated Sludge Package Plant. Activated sludge package plants are typically used for secondary treatment of residential domestic sewage. The package plant would consist of two aeration basins, secondary clarification, sludge holding tank, aerobic digester and chlorine contact chamber. UV disinfection may be used in lieu of chlorine disinfection.

Principals of Operation. The flow from preliminary treatment will enter the aeration basins. There are two aeration basins for this system since the flows will be fluctuating due to start-up and development. In early years or during winter months, only one basin may be in use, which should provide better treatment of the smaller flows. The flow next enters the clarifier where solid-liquid separation occurs. The treated wastewater will then flow to the disinfection system. The waste sludge will be transferred to the aerobic digester where further aeration will occur. The biosolids will be pumped out of the digester and hauled to a treatment and disposal facility.

Alternative 3: Aerated Lagoon System. An aerated lagoon wastewater treatment system was reviewed for wastewater treatment for the Rapids on the Colorado residential development. However, it was determined that this alternative is not a viable solution for this project. The aerated lagoon system facility will not be evaluated any further for the following reasons:

- Requires larger land area.
- Proximity to residential development.
- The expected treatment is typically maximum 85-90 BOD removal.
- Visually unacceptable.

IX. ESTIMATED FACILITY COSTS

(SBR is recommended alternative)

A. Construction Costs

The preliminary opinion of probable construction costs for a 0.060 MGD sequencing batch reactor process as previously outlined herein will be:

SBR Treatment Facility $617,700

B. Operation and Maintenance Costs*

The yearly operation and maintenance costs for the wastewater treatment facility is assumed to be in the range of:

Electricity	$425/week
Materials	$1,000/year
Testing	$350/month
Sludge Hauling	$8,000/year

Operator Labor $37,440/year (at $40/hour and 936 hours/year)

This provides an annual cost of $72,740 per year based on a flow of 0.060 MGD, which translates to $31.25/month/tap. The certified operator hired by the homeowners association will be responsible for contracting a certified sludge hauler to perform all hauling needs.

X. RECOMMENDED TREATMENT ALTERNATIVE

The recommended wastewater treatment facility for the proposed Rapids Development is a Sequencing Batch Reactor System (SBR). The major components of an SBR are as shown below:

PROCESS	DESCRIPTION
• Headworks; Pre-Treatment	• Screening, Grinding, Flow Measurement
• Secondary Treatment	• SBR(Aeration & Clarification in single basin
• Post-Equalization Basin	• To level flow pattern from SBR prior to disinfection
• Disinfection	• Either CL_2 or UV prior to discharge to receiving stream (Colorado River)
• Aerobic Digester	• Sludge Holding Tank (assume 2%) for hauling to disposal

The SBR process was selected as the recommended treatment process based on the following:

- Small land area required
- Low cost – An SBR facility has the lowest capital cost and also can be operated with the lowest operation and maintenance cost.
- Reliability – The system has the ability to continuously operate for extended periods, under varying conditions and with minimal downtime due to major maintenance. The SBR has the ability to produce consistent quality effluent under varying load conditions. It includes equipment redundancy to facilitate routine maintenance and capability to operate during power failure and major maintenance.
- Flexibility – The SBR process can be adjusted to meet a wide variety of influent compositions and effluent requirements. The system offers redundancy, and capability to handle peaking flows.
- Regulatory Compliance – The SBR will meet CDPHE's design requirements, and will achieve a high quality effluent.
- Environmental Concerns – The SBR alternative has a smaller footprint and the SBR can be covered more economically. Covering the system mitigates the potential for odor.

- Expandability – The SBR has the ability to accommodate additional capacity expansions.

XI. LAND OWNERSHIP OF SITE

The land where the proposed WWTF is to be constructed is currently owned by the Rapids Development Corporation. Please find the legal description, title commitment and proof of ownership of this parcel of land included in Appendix C of this report.

XII. FINANCIAL CAPABILITIES

The Rapids Development Corporation will be financially responsible for the construction and initial start-up of the WWTF. (Reference Appendix M – Financial and Managerial Certification). Upon completion of construction and certification that the facility is operating properly, Rapids Development Corporation and The Rapids on the Colorado Homeowners Association will initiate the formation of a special district to operate the existing Rapids water systems and the proposed wastewater treatment facility.

XIII. MANAGEMENT AND OPERATION

Upon approval of the "Site Location Application," the Rapids Development Corporation will construct the wastewater treatment facility. When construction is completed, Rapids Development Corporation will contract with a certified operator to operate and maintain the wastewater treatment facilities. The operator will report directly to the President of Rapids Development Corporation until the special district is formed and in operation.

XIV. CONSOLIDATION OF WASTEWATER TREATMENT FACILITY

Several scenarios for consolidation for the wastewater treatment facility for the Rapids on the Colorado development were investigated and are discussed as follows.

- Connection to Town of Silt. The wastewater treatment facility for the Town of Silt lies greater than five miles downstream of the proposed Rapids Development. Therefore, in accordance with Water Quality Control Division policy, no further analysis of this consolidation alternative is required.

- Connection to Town of New Castle. The proposed Rapids on the Colorado development lies approximately two and a half miles downstream and south of the Colorado River from New Castle. In discussions with the Town personnel, New Castle will not serve any consumers that are outside of the planned service area, nor will New Castle make any future enlargements to the existing service area. New Castle is not willing to entertain

- any discussions regarding connection of outside users, and therefore no further analysis of this consolidation alternative is warranted.

- Connection to Apple Tree Mobile Home Park. The proposed Rapids Development lies approximately one and a half miles downstream of the Apple Tree wastewater treatment facility. The Apple Tree lagoon system was originally constructed for the mobile home park and does not meet current design criteria. The owners have under consideration the possibility of performing a plant expansion in the future. A recent improvement to the facility was the construction of a new chlorine contact chamber. However, the facility is privately owned, and the owner has no desire to accept sewage from any outside entity.

- Connection to Proposed Garfield High School (Town of Silt system). Discussions with the Town of New Castle have revealed that a new high school is to be constructed approximately three (3) miles downstream of the proposed Rapids on the Colorado development. Assuming that it would not be necessary to cross the Colorado River, preliminary capital costs have been estimated as follows.

Line Survey	$8,000
Design and Contract	$24,000
Force Main (16,000 L.F.)	$640,000
Lift Station	$235,000
Site Application	$15,000
Electrical	$8,000
Generator	$65,000
Contingencies	$50,000
Tap Fees (Assumed 194 @ $4500)	$873,000

Total Preliminary Opinion of Cost for this consolidation alternative is $1,918,000. Based on this high cost, this alternative is cost prohibitive.

As shown and discussed above, it is evident that consolidation is not feasible, therefore a wastewater treatment facility for the Rapids on the Colorado is practical and economically beneficial.

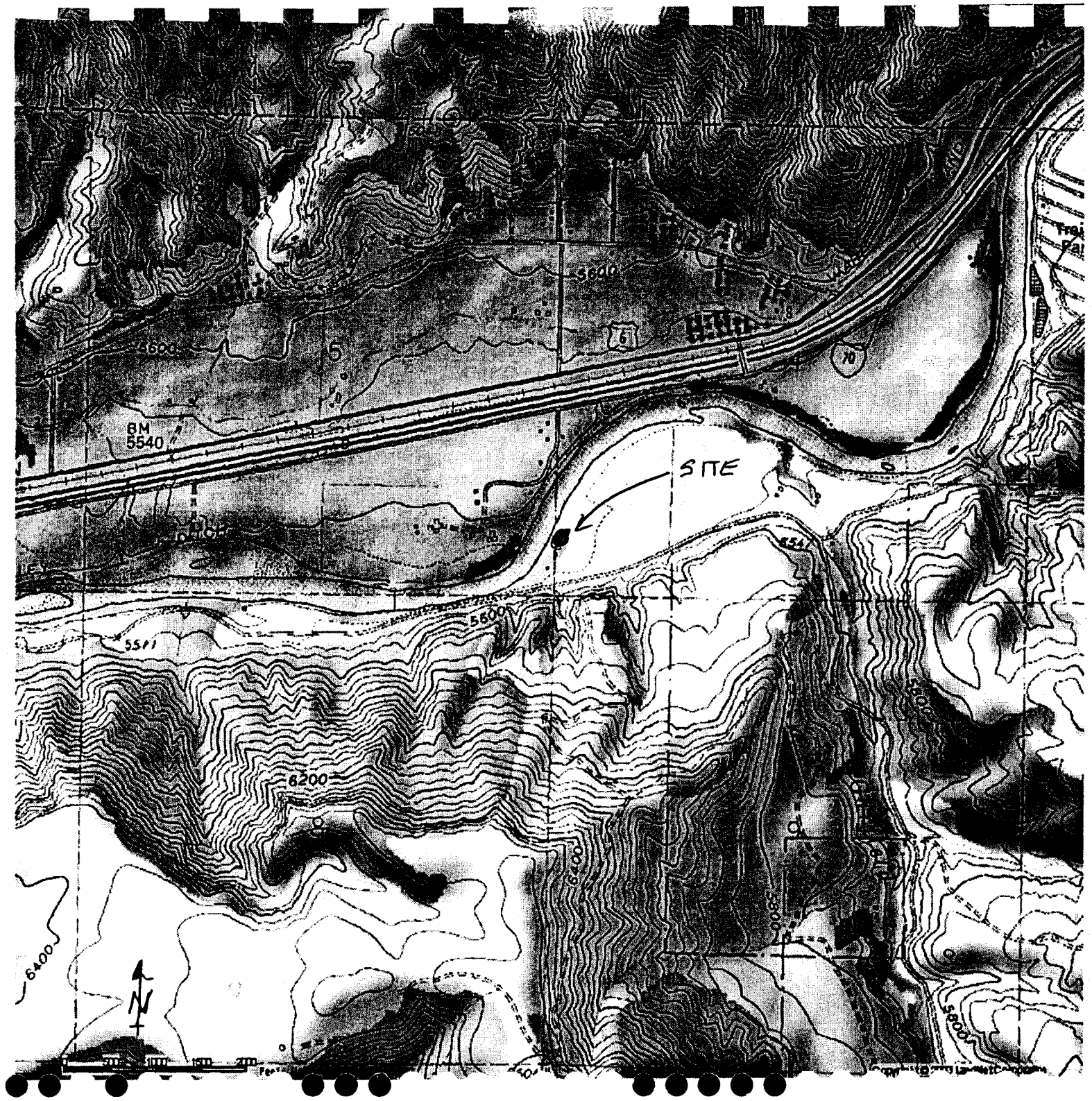
XV. IMPLEMENTATION PLAN AND SCHEDULE

The proposed implementation plan, schedule and timing issues for permitting, design and construction are as shown on the table in Appendix O.

XVI. CONCLUSIONS AND RECOMMENDATIONS

It is recommended that a Sequencing Batch Reactor wastewater treatment facility be approved and constructed for the Rapids on the Colorado subdivision.

APPENDIX A
SITE MAP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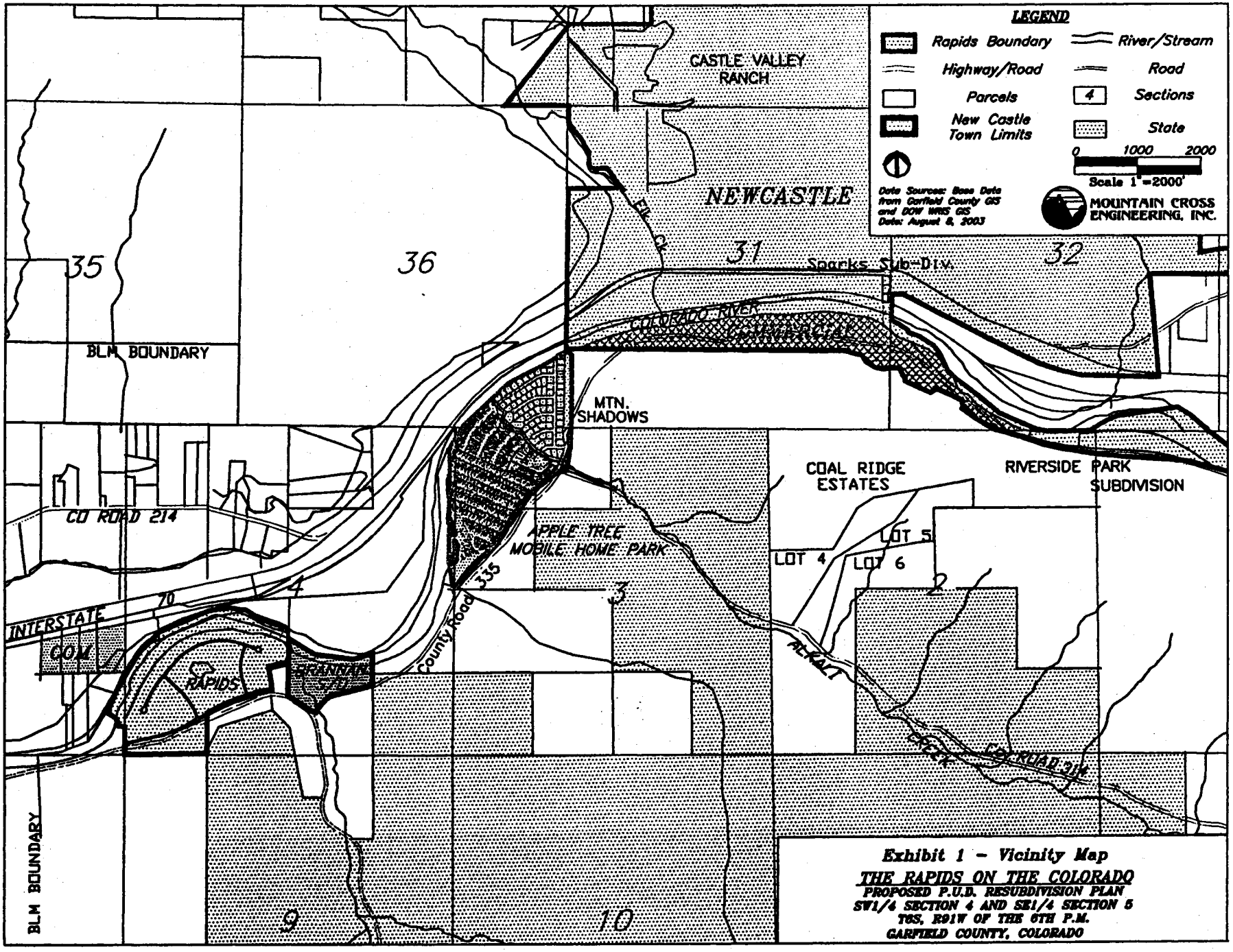
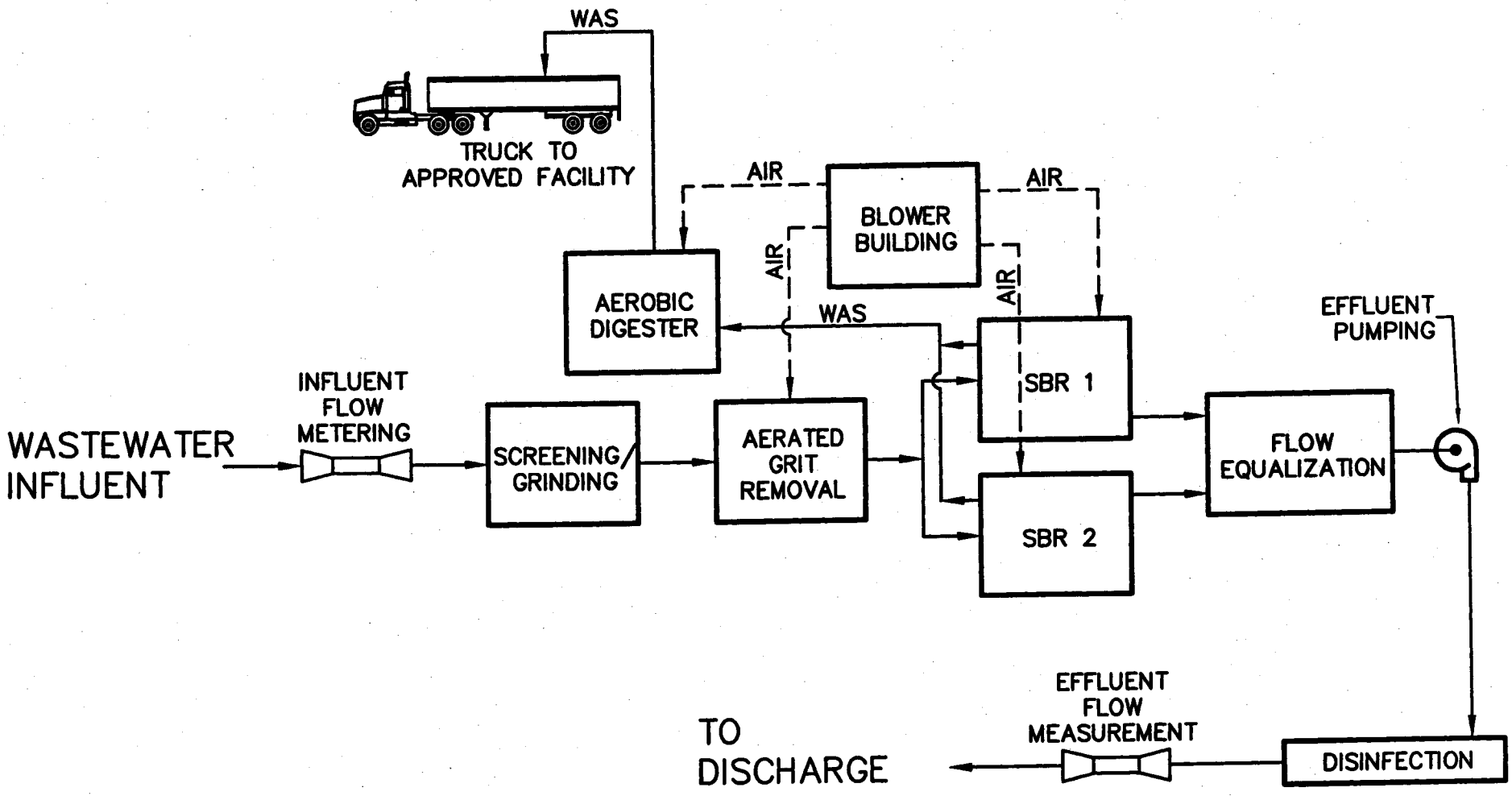


Exhibit 1 - Vicinity Map

THE RAPIDS ON THE COLORADO

PROPOSED P.U.D. RESUBDIVISION PLAN
SW1/4 SECTION 4 AND SE1/4 SECTION 5
T6S, R91W OF THE 6TH P.M.
GARFIELD COUNTY, COLORADO

APPENDIX B
WASTEWATER DEVELOPMENT PLAN



DECEMBER 5, 2003

SBR SCHEMATIC

MARTIN / MARTIN
CONSULTING ENGINEERS

12499 West Colfax Ave.
P.O. Box 151500
Lakewood, CO 80215
303.431.6100
FAX 303.431.4028

APPENDIX C
OWNERSHIP DOCUMENTATION

- **LEGAL DESCRIPTION**
- **TITLE COMMITMENT**
- **OWNERSHIP DEEDS**
- **PROPERTY BOUNDARY**

LEGAL DESCRIPTION
The Rapids of the Colorado

A tract of land situated in the SW1/4 of Section 4 and the SE1/4 of Section 5, Township 6 South, Range 91 West of the 6th P.M. described as follows:

Beginning at the Southwest Corner of said Section 4;
thence N 0° 50' 00" W 438.10 feet along the West line of said Section 4 and along the Easterly line of that parcel of land described in Book 570 at Page 266 in the Office of the Garfield County Clerk and Recorder;
thence N 75° 43' 18" W 101.89 feet;
thence N 17° 08' 41" W 115.59 feet;
thence N 53° 47' 08" W 177.75 feet to the center of the Colorado River;
thence along the center of said river N 23° 43' 15" E 339.10 feet;
thence N 23° 43' 20" E 310.00 feet;
thence N 35° 08' 15" E 419.25 feet;
thence N 42° 56' 13" E 499.62 feet;
thence N 65° 01' 47" E 404.40 feet;
thence N 71° 35' 12" E 503.50 feet;
thence N 84° 15' 20" E 284.99 feet;
thence S 81° 33' 38" E 244.41 feet;
thence S 58° 02' 47" E 266.82 feet;
thence S 68° 42' 11" E 476.70 feet;
thence departing the center of said Colorado River S 0° 29' 34" E 523.50 feet to the Northeast Corner of that parcel described in Book 527 at Page 743 as Reception No. 293881;
thence along the boundary of said parcel S 78° 22' 10" W 321.42 feet;
thence S 8° 40' 15" E 378.29 feet to a point on the Northerly Right-Of-Way of County Road No. 335;
thence along said Right-Of-Way S 78° 58' 32" W 207.05 feet;
thence 140.15 feet along a curve to the left, having a radius of 1030.00 feet, a central angle of 7° 47' 46"; the chord of which bears S 75° 04' 40" W 140.04 feet;
thence S 71° 10' 47" W 396.23 feet;
thence 66.20 feet along the arc of a curve to the left having a central angle of 7° 09' 25" and a radius of 530.00 feet; the chord of which bears S 67° 36' 05° W 66.16 feet;
thence S 64° 01' 23" W 296.11 feet;
thence departing said Right-of-Way S 0° 14' 42" E 653.78 feet to a point on the South line of said Section 4;
thence S 89° 20' 08" W 1308.98 feet to the POINT OF BEGINNING;
said described tract containing 97.269 acres, more or less.

Exhibit 28

Land Title Guarantee Company

YOUR CONTACTS

Date: 06-13-2003

Our Order Number: GW241562

Property Address:

Buyer/Borrower:
TBD

Seller/Owner:
RAPIDS DEVELOPMENT CORPORATION, A COLORADO CORPORATION

If you have any inquiries or require further assistance, please contact one of the numbers below:

For Closing Assistance:

For Title Assistance:
Glenwood Springs "gw" Unit

1317 Grand Ave #200
Glenwood Springs, Co 81601
Phone: 970-945-2610
Fax: 970-945-4784

Need a map or directions for your upcoming closing? Check out Land Title's web site at www.ltgc.com for directions to any of our 40 office locations.

ESTIMATE OF TITLE FEES	
TBD Commitment	$184.00
TOTAL	$184.00

Form CONTACT

THANK YOU FOR YOUR ORDER!

Commitment to Insure

ALTA Commitment - 1970 Rev.

OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, a Minnesota corporation, herein called the Company, for a valuable consideration, hereby commits to issue its policy or policies of title insurance, as identified in Schedule A, in favor of the proposed Insured named in Schedule A, as owner or mortgagee of the estate or interest covered hereby in the land described or referred to in Schedule A, upon payment of the premiums and charges therefor; all subject to the provisions of Schedule A and B and to the Conditions and Stipulations hereof.

This Commitment shall be effective only when the indentity of the proposed Insured and the amount of the policy or policies committed for have been inserted in Schedule A hereof by the Company, either at the time of the issuance of this Commitment or by subsequent endorsement.

This Commitment is preliminary to the issuance of such policy or policies of title insurance and all liability and obligations hereunder shall cease and terminate six months after the effective date hereof or when the policy or policies committed for shall issue, whichever first occurs, provided that the failure to issue such policy or policies is not the fault of the Company.

CONDITIONS AND STIPULATIONS

1. The term "mortgage", when used herein, shall include deed of trust, trust deed, or other security instrument.

2. If the proposed Insured has or acquires actual knowledge of any defect, lien, encumbrance, adverse claim or other matter affecting the estate or interest or mortgage thereon covered by this Commitment other than those shown in Schedule B hereof, and shall fail to disclose such knowledge to the Company in writing, the Company shall be relieved from liability for any loss or damage resulting from any act of reliance hereon to the extent the Company is prejudiced by failure of the proposed Insured to so disclose such knowledge. If the proposed Insured shall disclose such knowledge to the Company, or if the Company otherwise acquires actual knowledge of any such defect, lien, encumbrance, adverse claim or other matter, the Company at its option may amend Schedule B of this Commitment accordingly, but such amendment shall not relieve the Company from liability previously incurred pursuant to paragraph 3 of these Conditions and Stipulations.

3. Liability of the company under this Commitment shall be only to the named proposed Insured and such parties included under the definition of Insured in the form of policy or policies committed for and only for actual loss incurred in reliance hereon in undertaking in good faith (a) to comply with the requirements hereof or (b) to eliminate exceptions shown in Schedule B, or (c) to acquire or create the estate or interest or mortgage thereon covered by this Commitment. In no event shall such liability exceed the amount stated in Schedule A for the policy or policies committed for and such liability is subject to the insuring provisions and the Conditions and Stipulations and the Exclusions from Coverage of the form of policy or policies committed, for in favor of the proposed Insured which are hereby incorporated by reference and made a part of this Commitment except as expressly modified herein.

4. Any action or actions or rights of action that the proposed Insured may have or may bring against the Company arising out of the status of the title to the estate or interest or the status of the mortgage thereon covered by this Commitment must be based on and are subject to the provisions of this Commitment.

STANDARD EXCEPTIONS

In addition to the matters contained in the Conditions and Stipulations and Exclusions from Coverage above referred to, this Commitment is also subject to the following:

1. Rights or claims of parties in possession not shown by the public records.

2. Easements, or claims of easements, not shown by the public records.

3. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, and any facts which a correct survey and inspection of the premises would disclose and which are not shown by the public records.

4. Any lien, or right to a lien, for services, labor or material theretofore or hereafter furnished, imposed by law and not shown by the public records.

5. Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing tin the public records or attaching subsequent to the effective date hereof but prior to the date the proposed insured acquires of record for value the estate or interest or mortgage thereon covered by this Commitment.

IN WITNESS WHEREOF, Old Republic National Title Insurance Company has caused its corporate name and seal to be hereunto affixed by its duly authorized officers on the date shown in Schedule A, to be valid when countersigned by a validating officer or other authorized signatory.

OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
A Stock Company
400 Second Avenue South
Minneapolis, Minnesota 55401
(612) 371-1111

Authorized Signature

CC.ORT

Old Republic National Title Insurance Company

ALTA COMMITMENT

Our Order No. GW241562

Schedule A

Cust. Ref.:

Property Address:

1. **Effective Date:** May 16, 2003 at 5:00 P.M.

2. **Policy to be Issued, and Proposed Insured:**

   "TBD" Commitment

   Proposed Insured:
   TBD

3. **The estate or interest in the land described or referred to in this Commitment and covered herein is:**

   A Fee Simple

4. **Title to the estate or interest covered herein is at the effective date hereof vested in:**

   RAPIDS DEVELOPMENT CORPORATION, A COLORADO CORPORATION

5. **The land referred to in this Commitment is described as follows:**

   LOTS 1 THROUGH 33 INCLUSIVE
   THE RAPIDS ON THE COLORADO
   ACCORDING TO THE PLAT RECORDED SEPTEMBER 9, 1997 UNDER RECEPTION NO. 513353

   COUNTY OF GARFIELD
   STATE OF COLORADO

ALTA COMMITMENT

Schedule B-1

(Requirements) Our Order No. GW241562

The following are the requirements to be complied with:

Payment to or for the account of the grantors or mortgagors of the full consideration for the estate or interest to be insured.

Proper instrument(s) creating the estate or interest to be insured must be executed and duly filed for record, to-wit:

THIS COMMITMENT IS FOR INFORMATION ONLY, AND NO POLICY WILL BE ISSUED PURSUANT HERETO.

ALTA COMMITMENT

Schedule B-2

(Exceptions) **Our Order No.** GW241562

The policy or policies to be issued will contain exceptions to the following unless the same are disposed of to the satisfaction of the Company:

1. Rights or claims of parties in possession not shown by the public records.

2. Easements, or claims of easements, not shown by the public records.

3. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, and any facts which a correct survey and inspection of the premises would disclose and which are not shown by the public records.

4. Any lien, or right to a lien, for services, labor or material theretofore or hereafter furnished, imposed by law and not shown by the public records.

5. Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the public records or attaching subsequent to the effective date hereof but prior to the date the proposed insured acquires of record for value the estate or interest or mortgage thereon covered by this Commitment.

6. Taxes and assessments not yet due or payable and special assessments not yet certified to the Treasurer's office.

7. Any unpaid taxes or assessments against said land.

8. Liens for unpaid water and sewer charges, if any.

9. DEED OF TRUST DATED SEPTEMBER 03, 1997 FROM RAPIDS DEVELOPMENT CORPORATION, A COLORADO CORPORATION TO THE PUBLIC TRUSTEE OF GARFIELD COUNTY FOR THE USE OF GENE R. HILTON TO SECURE THE SUM OF $3,850,000.00, AND ANY OTHER AMOUNTS PAYABLE UNDER THE TERMS THEREOF, RECORDED SEPTEMBER 09, 1997, IN BOOK 1032 AT PAGE 994.

   SUBORDINATION AGREEMENT IN CONNECTION WITH SAID DEED OF TRUST WAS RECORDED JANUARY 28, 2003, IN BOOK 1430 AT PAGE 873.

10. DEED OF TRUST DATED JANUARY 27, 2004 FROM RAPIDS DEVELOPMENT CORPORATION, A COLORADO CORPORATION TO THE PUBLIC TRUSTEE OF GARFIELD COUNTY FOR THE USE OF FIRST UNITED BANK TO SECURE THE SUM OF $1,700,000.00, AND ANY OTHER AMOUNTS PAYABLE UNDER THE TERMS THEREOF, RECORDED JANUARY 28, 2003, IN BOOK 1430 AT PAGE 876.

11. FINANCING STATEMENT WITH FIRST UNITED BANK, THE SECURED PARTY, RECORDED JANUARY 28, 2003, IN BOOK 1430 AT PAGE 882.

12. THE EFFECT OF INCLUSIONS IN ANY GENERAL OR SPECIFIC WATER CONSERVANCY, FIRE PROTECTION, SOIL CONSERVATION OR OTHER DISTRICT OR INCLUSION IN ANY WATER

ALTA COMMITMENT

Schedule B-2

(Exceptions) Our Order No. GW241562

The policy or policies to be issued will contain exceptions to the following unless the same are disposed of to the satisfaction of the Company:

SERVICE OR STREET IMPROVEMENT AREA.

13. RIGHT OF PROPRIETOR OF A VEIN OR LODE TO EXTRACT AND REMOVE HIS ORE THEREFROM SHOULD THE SAME BE FOUND TO PENETRATE OR INTERSECT THE PREMISES AS RESERVED IN UNITED STATES PATENT RECORDED MARCH 15, 1898, IN BOOK 12 AT PAGE 481, RECORDED OCTOBER 27, 1902 IN BOOK 56 AT PAGE 464, RECORDED OCTOBER 2, 1944 IN BOOK 73 AT PAGE 225, AND RECORDED APRIL 16, 1924 IN BOOK 73 AT PAGE 180

14. RIGHT OF WAY FOR DITCHES OR CANALS CONSTRUCTED BY THE AUTHORITY OF THE UNITED STATES AS RESERVED IN UNITED STATES PATENT RECORDED MARCH 15, 1898, IN BOOK 12 AT PAGE 481, RECORDED OCTOBER 27, 1902 IN BOOK 56 AT PAGE 464, RECORDED OCTOBER 2, 1944 IN BOOK 73 AT PAGE 225, RECORDED APRIL 16, 1924 IN BOOK 73 AT PAGE 180 AND RECORDED APRIL 16, 1924 IN BOOK 112 AT PAGE 578

15. ALL COAL RESERVED BY THE UNITED STATES OR TO PERSONS AUTHORIZED BY IT, THE RIGHT TO PROSPECT FOR, MINE AND REMOVE COAL FROM THE SAME UPON COMPLIANCE WITH THE CONDITIONS OF AND SUBJECT TO THE LIMITATIONS OF THE ACT OF JUNE 22, 1910 (36 STAT. 583) AS RESERVED IN PATENT RECORDED APRIL 16, 1924 IN BOOK 112 AT PAGE 578.

16. UNDIVIDED ONE HALF INTEREST IN ALL OIL, GAS AND OTHER MINERAL RIGHTS, AS RESERVED BY EDWIN R. STOLL AND GOLDIE S. STOLL IN INSTRUMENT RECORDED AUGUST 8, 1960 IN BOOK 329 AT PAGE 99, AND ANY AND ALL ASSIGNMENTS THEREOF OR INTERESTS THEREIN.

UPON RECORDATION OF MINERAL DEED BETWEEN LULA M. JEFFRYES AND GENE R. HILTON AND MARY J. HILTON, EXCEPTION NO. 14 WILL BE DELETED.

17. UNDIVIDED ONE HALF INTEREST IN ALL OIL, GAS AND OTHER MINERALS RESERVED BY THE FEDERAL LAND BANK OF WICHITA IN DEED RECORDED OCTOBER 30, 1943 IN BOOK 208 AT PAGE 463, AND ANY AND ALL ASSIGNMENTS THEREOF OR INTERESTS THEREIN.

18. RESTRICTIVE COVENANTS, WHICH DO NOT CONTAIN A FORFEITURE OR REVERTER CLAUSE, BUT OMITTING ANY COVENANT OR RESTRICTION BASED ON RACE, COLOR, RELIGION, SEX, HANDICAP, FAMILIAL STATUS OR NATIONAL ORIGIN UNLESS AND ONLY TO THE EXTENT THAT SAID COVENANT (A) IS EXEMPT UNDER CHAPTER 42, SECTION 3607 OF THE UNITED STATES CODE OR (B) RELATES TO HANDICAP BUT DOES

ALTA COMMITMENT

Schedule B-2

(Exceptions) Our Order No. GW241562

The policy or policies to be issued will contain exceptions to the following unless the same are disposed of to the satisfaction of the Company:

NOT DISCRIMINATE AGAINST HANDICAPPED PERSONS, AS CONTAINED IN INSTRUMENT RECORDED NOVEMBER 01, 1974, IN BOOK 466 AT PAGE 29.

19. EASEMENTS AND RIGHTS OF WAY FOR THE HUDSON AND SULLIVAN DITCH AS DISCLOSED BY INSTRUMENT RECORDED JANUARY 30, 1888 AS RECEPTION NO. 6201 AND RECORDED SEPTEMBER 8, 1888 IN BOOK 19 AT PAGE 204.

20. EASEMENTS AND RIGHTS OF WAY FOR THE MOORE DITCH, READ AND HUDSON DITCH AS DISCLOSED IN INSTRUMENTS RECORDED OCTOBER 29, 1886 AS RECEPTION NO. 3253, RECORDED JANUARY 30, 1888 AS RECEPTION NO. 6201 AND RECORDED DECEMBER 29, 1887 IN BOOK 14 AT PAGE 298.

21. EASEMENTS AND RIGHTS OF WAY FOR ROADS AS SHOWN IN ROADVIEWER'S REPORTS RECORDED JULY 7, 1890 AS RECEPTION NO. 10567, RECORDED JULY 25, 1894 AS RECEPTION NO. 17518 AND BY INSTRUMENT RECORDED JULY 24, 1894 IN BOOK 38 AT PAGE 124.

22. EASEMENTS AND RIGHTS OF WAY AS GRANTED TO PUBLIC SERVICE COMPANY OF COLORADO IN INSTRUMENT RECORDED FEBRUARY 13, 1967 IN BOOK 382 AT PAGE 187.

23. ANY QUESTION, DISPUTE OR ADVERSE CLAIMS AS TO ANY LOSS OR GAIN OF LAND AS A RESULT OF ANY CHANGE IN THE RIVER BED LOCATION BY NATURAL OR OTHER THAN NATURAL CAUSES, OR ALTERATION THROUGH ANY CAUSE, NATURAL OR UNNATURAL, OF THE CENTER THREAD, BANK, CHANNEL OR FLOW OF WATERS IN THE COLORADO RIVER RIVER LYING WITHIN SUBJECT LAND; AND ANY QUESTION AS TO THE LOCATION OF SUCH CENTER THREAD, BED, BANK OR CHANNEL AS A LEGAL DESCRIPTION MONUMENT OR MARKER FOR PURPOSES OF DESCRIBING OR LOCATING SUBJECT LANDS.

24. TERMS, CONDITIONS AND PROVISIONS OF GARFIELD COUNTY RESOLUTION NO. 96-70 RECORDED OCTOBER 17, 1996 IN BOOK 996 AT PAGE 665.

25. TERMS, CONDITIONS AND PROVISIONS OF GARFIELD COUNTY RESOLUTION NO. 97-26 RECORDED APRIL 08, 1997 IN BOOK 1014 AT PAGE 808.

26. THE EFFECT OF THE RIGHTS OF OTHERS IN AND TO THE LANDS LYING SOUTHERLY OF THE THREAD OF THE MEANDER LINE OF THE COLORADO RIVER AND THE LANDS LYING NORTHERLY OF THE SOUTH BANK OF THE THREAD OF THE MEANDER LINE.

ALTA COMMITMENT

Schedule B-2

(Exceptions) Our Order No. GW241562

The policy or policies to be issued will contain exceptions to the following unless the same are disposed of to the satisfaction of the Company:

27. EASEMENTS, RIGHTS OF WAY AND OTHER MATTERS AS SET FORTH ON THE PLAT OF SUBJECT PROPERTY RECORDED SEPTEMBER 9, 1997 AS RECEPTION NO. 513353.

28. TERMS, CONDITIONS, AND PROVISIONS OF SUBDIVIDER'S AGREEMENT AS CONTAINED IN INSTRUMENT RECORDED SEPTEMBER 09, 1997, IN BOOK 1032 AT PAGE 948.

29. RESTRICTIVE COVENANTS, WHICH DO NOT CONTAIN A FORFEITURE OR REVERTER CLAUSE, BUT OMITTING ANY COVENANT OR RESTRICTION BASED ON RACE, COLOR, RELIGION, SEX, HANDICAP, FAMILIAL STATUS OR NATIONAL ORIGIN UNLESS AND ONLY TO THE EXTENT THAT SAID COVENANT (A) IS EXEMPT UNDER CHAPTER 42, SECTION 3607 OF THE UNITED STATES CODE OR (B) RELATES TO HANDICAP BUT DOES NOT DISCRIMINATE AGAINST HANDICAPPED PERSONS, AS CONTAINED IN INSTRUMENT RECORDED SEPTEMBER 09, 1997, IN BOOK 1032 AT PAGE 963.

30. TERMS, CONDITIONS AND PROVISIONS OF DEED TO THE RAPIDS ON COLORADO HOMEOWNERS ASSOCIATION RECORDED SEPTEMBER 09, 1997 IN BOOK 1032 AT PAGE 961.

31. EASEMENTS AND RIGHTS OF WAY AS CONTAINED IN INSTRUMENT RECORDED SEPTEMBER 9, 1997 IN BOOK 1033 AT PAGE 8.

32. TERMS, CONDITIONS AND PROVISIONS OF WEST DIVIDE WATER CONSERVANCY DISTRICT MEMORANDUM OF WATER ALLOTMENT CONTRACT RECORDED APRIL 28, 1998 IN BOOK 1064 AT PAGE 699.

33. ANY BOUNDARY DISCREPANCY DUE TO THE LOCATION OF FENCE LINES AND THE EFFECT OF ANY RIGHT, TITLE OR INTEREST THAT MAY BE CLAIMED DUE TO ANY SAID DISCREPANCY.

34. TERMS, CONDITIONS AND PROVISIONS OF MEMORANDUM OF AGREEMENT RECORDED DECEMBER 04, 2001 IN BOOK 1308 AT PAGE 554.

35. TERMS, CONDITIONS AND PROVISIONS OF GRANT OF EASEMENT RECORDED DECEMBER 04, 2001 IN BOOK 1308 AT PAGE 560 AND QUIT CLAIM DEED ASSOCIATED WITH GRANT OF EASEMENT RECORDED DECEMBER 4, 2001 IN BOOK 1308 AT PAGE 564..

ALTA COMMITMENT

Schedule B-2

(Exceptions) Our Order No. GW241562

The policy or policies to be issued will contain exceptions to the following unless the same are disposed of to the satisfaction of the Company:

36. TERMS, CONDITIONS AND PROVISIONS OF MINERAL DEED RECORDED DECEMBER 31, 2001 IN BOOK 1316 AT PAGE 988.

LAND TITLE GUARANTEE COMPANY

DISCLOSURE STATEMENTS

Note: Pursuant to CRS 10-11-122, notice is hereby given that:

A) The subject real property may be located in a special taxing district.

B) A Certificate of Taxes Due listing each taxing jurisdiction may be obtained from the County Treasurer's authorized agent.

C) The information regarding special districts and the boundaries of such districts may be obtained from the Board of County Commissioners, the County Clerk and Recorder, or the County Assessor.

Note: Effective September 1, 1997, CRS 30-10-406 requires that all documents received for recording or filing in the clerk and recorder's office shall contain a top margin of at least one inch and a left, right and bottom margin of at least one half of an inch. The clerk and recorder may refuse to record or file any document that does not conform, except that, the requirement for the top margin shall not apply to documents using forms on which space is provided for recording or filing information at the top margin of the document.

Note: Colorado Division of Insurance Regulations 3-5-1, Paragraph C of Article VII requires that "Every title entity shall be responsible for all matters which appear of record prior to the time of recording whenever the title entity conducts the closing and is responsible for recording or filing of legal documents resulting from the transaction which was closed". Provided that Land Title Guarantee Company conducts the closing of the insured transaction and is responsible for recording the legal documents from the transaction, exception number 5 will not appear on the Owner's Title Policy and the Lenders Policy when issued.

Note: Affirmative mechanic's lien protection for the Owner may be available (typically by deletion of Exception no. 4 of Schedule B, Section 2 of the Commitment from the Owner's Policy to be issued) upon compliance with the following conditions:

A) The land described in Schedule A of this commitment must be a single family residence which includes a condominium or townhouse unit.

B) No labor or materials have been furnished by mechanics or material-men for purposes of construction on the land described in Schedule A of this Commitment within the past 6 months.

C) The Company must receive an appropriate affidavit indemnifying the Company against un-filed mechanic's and material-men's liens.

D) The Company must receive payment of the appropriate premium.

E) If there has been construction, improvements or major repairs undertaken on the property to be purchased within six months prior to the Date of the Commitment, the requirements to obtain coverage for unrecorded liens will include: disclosure of certain construction information; financial information as to the seller, the builder and or the contractor; payment of the appropriate premium fully executed Indemnity Agreements satisfactory to the company, and, any additional requirements as may be necessary after an examination of the aforesaid information by the Company.

No coverage will be given under any circumstances for labor or material for which the insured has contracted for or agreed to pay.

Note: Pursuant to CRS 10-11-123, notice is hereby given:

A) That there is recorded evidence that a mineral estate has been severed, leased, or otherwise conveyed from the surface estate and that there is a substantial likelihood that a third party holds some or all interest in oil, gas, other minerals, or geothermal energy in the property; and

B) That such mineral estate may include the right to enter and use the property without the surface owner's permission.

This notice applies to owner's policy commitments containing a mineral severance instrument exception, or exceptions, in Schedule B, Section 2.

Nothing herein contained will be deemed to obligate the company to provide any of the coverages referred to herein unless the above conditions are fully satisfied.

JOINT NOTICE OF PRIVACY POLICY

OF

LAND TITLE GUARANTEE COMPANY AND LAND TITLE INSURANCE CORPORATION AND OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY

Title V of the Gramm-Leach-Bliley Act (GLBA) generally prohibits any financial institution, directly or through its affiliates, from sharing nonpublic personal information about you with a nonaffiliated third party unless the institution provides you with a notice of its privacy policies and practices, such as the type of information that it collects about you and the categories of persons or entities to whom it may be disclosed. In compliance with the GLBA, we are providing you with this document, which notifies you of the privacy policies and practices of Land Title Guarantee Company and Land Title Insurance Corporation and Old Republic National Title Insurance Company.

We may collect nonpublic personal information about you from the following sources:

Information we receive from you such as on applications or other forms.
Information about your transactions we secure from our files, or from our affiliates or others.
Information we receive from a consumer reporting agency.
Information that we receive from others involved in your transaction, such as the real estate agent or lender.

Unless it is specifically stated otherwise in an amended Privacy Policy Notice, no additional nonpublic personal information will be collected about you.

We may disclose any of the above information that we collect about our customers or former customers to our affiliates or to nonaffiliated third parties as permitted by law.

We also may disclose this information about our customers or former customers to the following types of nonaffiliated companies that perform marketing services on our behalf or with whom we have joint marketing agreements:

* Financial service providers such as companies engaged in banking, consumer finance, securities and insurance.
* Non-financial companies such as envelope stuffers and other fulfillment service providers.

WE DO NOT DISCLOSE ANY NONPUBLIC PERSONAL INFORMATION ABOUT YOU WITH ANYONE FOR ANY PURPOSE THAT IS NOT SPECIFICALLY PERMITTED BY LAW.

We restrict access to nonpublic personal information about you to those employees who need to know that information in order to provide products or services to you. We maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

Recorded at _____ o'(1 of 2 R 11.00 D 0.00 N 0.00 GARFIELD CLERK
Reception No. _____

SPECIAL WARRANTY DEED

THIS DEED, made this 3rd day of September, 1997, between Gene R. Hilton grantor(s), and Rapids Development Corporation, a Colorado corporation whose legal address is 2102 W. Arapahoe, grantee(s):

WITNESSETH, That the grantor(s), for and in consideration of the sum of Ten and 00/100 Dollars ($10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell, convey and confirm, unto the grantee(s), its successors and assigns forever, all the real property, together with improvements, if any, situate, lying and being in the County of Garfield, State of Colorado as described as follows: see Exhibit A attached hereto and incorporated herein by this reference.

also known by street and number as: Vacant Land

TOGETHER with all and singular the hereditaments and appurtenances thereto belonging, or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof; and all the estate, right, title, interest, claim and demand whatsoever of the grantor(s), either in law or equity, of, in and to the above-bargained premises, with the hereditaments and appurtenances:

TO HAVE AND TO HOLD the said premises above bargained and described with the appurtenances, unto the grantee(s), its successors and assigns forever. The grantor(s), for itself its successors and assigns, does covenant and agree that it shall and will WARRANT AND FOREVER DEFEND the above-bargained premises in the quiet and peaceable possession of the grantee(s), its successors and assigns, against all and every person or persons claiming the whole or any part thereof, by, through or under the grantor(s).

IN WITNESS WHEREOF, the grantor(s) has executed this deed on the date set forth above.

Gene R. Hilton

STATE OF COLORADO)
City &) SS.
County of Denver)

The foregoing instrument was acknowledged before me this 3rd day of September, 1997, by Gene R. Hilton.

Witness my hand and official seal.

My commission expires: 1-20-99

Notary Public

Q:\WPDATA\PC\HILTON\RIVPROP.007\SPECWARR.HIL - September 3, 1997 (10:51am)

Please return to
Bank of Colorado-Western Slop
P.O. Box 520
Glenwood Springs, CO 81602

513352 09/09/1997 10:19A B1032 P946 388
2 of 2 R 11.00 D 0.00 N 0.00 GARFIELD CLERK

EXHIBIT A

A tract of land situated in the SW1/4 of Section 4 and the SE1/4 of Section 5, Township 6 South, Range 91 West of the 6th P.M. described as follows:

Beginning at the Southwest Corner of said Section 4; thence N 0° 50' 00" W 438.10 feet along the West line of said Section 4 and along the Easterly line of that parcel of land described in Book 570 at Page 266 in the Office of the Garfield County Clerk and Recorder; thence N 75° 43' 18" W 101.89 feet; thence N 17° 08' 41" W 115.59 feet; thence N 53° 47' 08" W 177.75 feet to the center of the Colorado River; thence along the center of said river N 23° 43' 15" E 339.10 feet; thence N 23° 43' 20" E 310.00 feet; thence N 35° 08' 15" E 419.25 feet; thence N 42° 56' 13" E 499.62 feet; thence N 65° 01' 47" E 404.40 feet; thence N 71° 35' 12" E 503.50 feet; thence N 84° 15' 20" E 284.99 feet; thence S 81° 33' 38" E 244.41 feet; thence S 58° 02' 47" E 266.82 feet; thence S 68° 42' 11" E 480.81 feet to the west line of the Brannan Subdivision Exemption No. 1; thence along said west line and departing the center of said Colorado River S 0° 50' 54" E 520.60 feet to the Northeast Corner of that parcel described in Book 527 at Page 743 as Reception No. 293881; thence along the boundary of said parcel S 78° 22' 10" W 328.61 feet; thence S 8° 40' 15" E 370.92 feet to a point on the Northerly Right-Of-Way of County Road No. 335; thence along said Right-Of-Way S 79° 02' 15" W 272.84 feet; thence S 71° 43' 27" W 273.76 feet; thence S 68° 13' 04" W 264.74 feet; thence S 64° 01' 23" W 296.11 feet; thence departing said Right-Of-Way S 0° 14' 42" E 653.78 feet to a point on the South line of said Section 4; thence S 89° 20' 08" W 1308.98 feet; to the POINT OF BEGINNING; said described tract containing 97.214 acres, more or less.

513355 09/09/1997 10:37A B1032 P961 319
1 of 2 R 11.00 D 0.00 N 0.00 GARFIELD CLERK

QUITCLAIM DEED

This deed, made this 5TH day of SEPTEMBER 1997, between the **RAPIDS DEVELOPMENT CORPORATION** (Grantor) and **THE RAPIDS ON COLORADO HOMEOWNERS ASSOCIATION** (Grantee):

WITNESSETH, that the grantor for and in consideration of the sum of One Dollar and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, has remised, released, sold, conveyed and quit claimed, and by these presents does remise, release, sell, convey and quit claim unto grantee, its successors and assigns forever, all right, title, interest, claim and demand which the Grantor has in and to those parcels of land depicted and described as "Common Open Space" on the plat file for public record in the Office of the Clerk and Recorder of Garfield County, Colorado as Reception No. 513353 (Hereinafter collectively "Properties"), subject to the following conditions and limitations:

1. The Properties shall be used by the members of the Rapids on the Colorado Homeowners Association exclusively, as open space and said use shall be subject to all the limitations and conditions contained and set forth within the plat filed for public record in the Office of the Clerk and Recorder of Garfield County, Colorado as Reception No. 513353 (Hereinafter "Final Plat"), Garfield County Board of Commissioner Resolution No. 96-70 and the Protective Covenants for the Rapids on the Colorado Subdivision, filed for public record in the Office of the Clerk and Recorder of Garfield County, Colorado at Book 1022 Page 963 Reception No. 513356.

2. All costs and expenses incident to the maintenance and upkeep of the Properties shall be the exclusive responsibility of the Rapids on the Colorado Homeowners Association.

3. The grant herein is subject to all easements and rights of way of record or presently in place within the Properties and/or depicted therein upon the Final Plat and subject to the rights of the beneficiaries of such easements and rights of way to make use thereof.

It is the purpose herein that the terms and conditions hereof shall extend to and be binding upon the Properties and shall be a covenants running with the land.

513355 09/09/1997 10:37A B1032 P962 319
2 of 2 R 11.00 D 0.00 N 0.00 GARFIELD CLERK

IN WITNESS WHEREOF, the Grantor has executed this deed on the date first set forth above.

ATTEST,

By Mary J. Hilton
Mary J. Hilton, Secretary

Rapids Development Corporation

By Gene R. Hilton
GENE R. HILTON, President
2102 W. Arapahoe Dr.
Littleton CO 80120

STATE OF COLORADO)
) ss.
COUNTY OF GARFIELD)

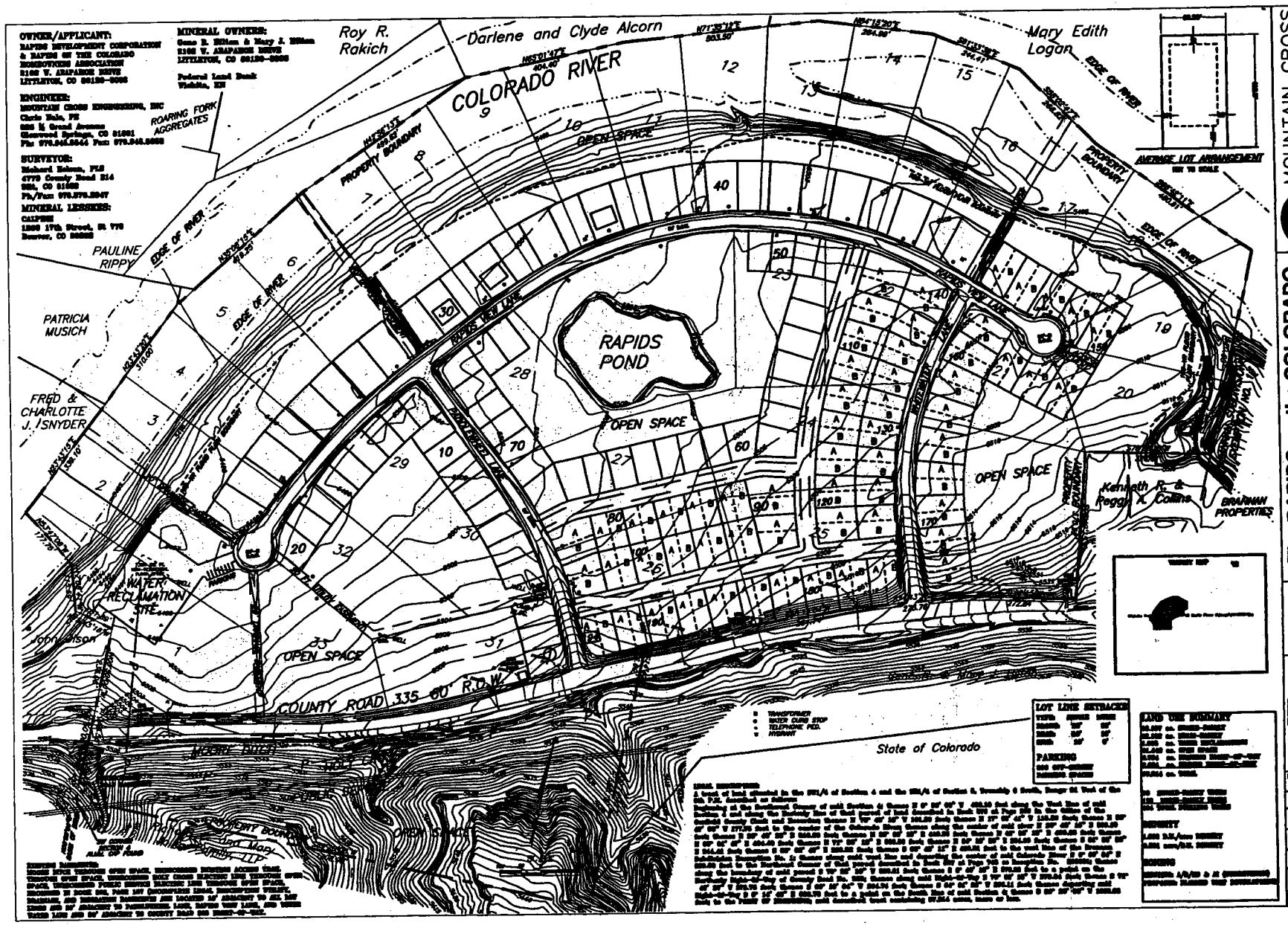
The foregoing was acknowledged before me this 5th day of September, 1997, by GENE R. HILTON, President of the Rapids Development Corporation and Mary J. Hilton, Secretary of the Rapids Development Corporation.

WITNESS my hand and official seal.

NOTARY PUBLIC JAYNIE SKINNER STATE OF COLORADO

Jaynie R. Skinner
NOTARY PUBLIC

My commission expires: 11-2-97
Address: 818 Colorado Ave.
Glenwood Spgs, CO

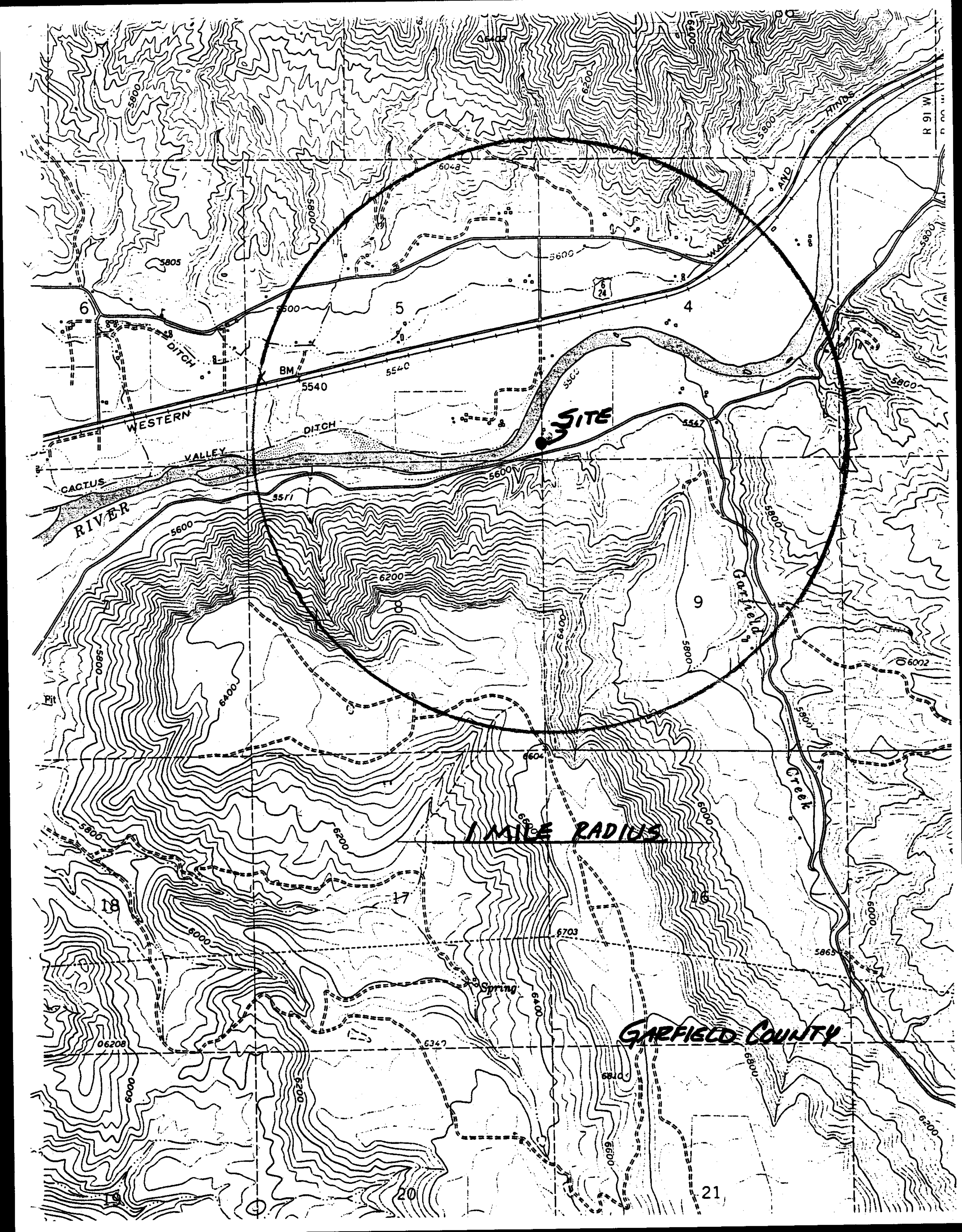


MOUNTAIN CROSS ENGINEERING,

The RAPIDS on the COLORADO
Planned Unit Development
SKETCH PLAN

DATE	10/30/03
SCALE	1"=100'
DRAWN BY	C. HALE
JOB FILE	194urdis
JOB #	423
SHEET	1

APPENDIX D
1 MILE RADIUS & 5 MILE RADIUS


SITE
1 MILE RADIUS
GARFIELD COUNTY
WESTERN
DITCH
VALLEY
CACTUS
RIVER
BM
5540
Garfield
Creek
Spring
WARE
AND
HINDS
R 91 W
6
5
4
8
9
17
16
18
19
20
21


5
MILE
RADIUS

APPENDIX E
WATER WELL LOCATIONS/WATER SUPPLY DATA

SITE WATER SUPPLY INFORMATION

Exhibit 9

WWE
Wright Water Engineers, Inc.

818 Colorado Ave.
P.O. Box 219
Glenwood Springs, Colorado 81602
(970) 945-7755 TEL
(970) 945-9210 FAX
(303) 893-1608 DENVER DIRECT LINE

September 4, 2003

Mr. Gene R. Hilton
P.O. Box 1274
Littleton, CO 80120

Re: Rapids on the Colorado Water Supply Analysis

Dear Mr. Hilton:

Wright Water Engineers, Inc. (WWE) analyzed the water supply requirements for the proposed Planned Unit Development (P.U.D.) rezoning of the Rapids on the Colorado Development in Garfield County, Colorado. The development will have 204 residential units and 52.5 acres of irrigated land, including open space and landscape amenities associated with the residential units.

The potable in-house water supply for the residential units will be provided from two on-site wells through a central distribution system. No irrigation water will be provided by the central potable water system. All irrigation in the P.U.D. will be by a separate non-potable system that diverts water from Garfield Creek through the historic Moore Ditch.

The Hilton Augmentation Plan, decreed in Case No. W-3262, establishes the criteria for determining the demand for water by the residential units. Residential wastewater will be collected and treated by means of a central wastewater treatment system.

Table 1 presents the water requirements and stream depletions for the P.U.D. The calculations are based on criteria defined in Case No. W-3262; specifically:

- Average occupancy of 3.5 persons per unit (year-round)
- Average delivery of 100 gallons per day per person
- Average stream depletion of delivered in-house water treated through a central wastewater treatment system of 3 percent

Annual potable diversions at full build out will equal 80 acre-feet (AF), and annual depletions will be 2.40 AF. The two wells are capable of pumping the full amount of water required for domestic use for the project. The maximum pumping rate from the well system is expected to be about 100 gpm, which exceeds maximum demands. The domestic system will be designed to have more than 100,000 gallons of storage to meet daily peaking needs.

Because of their junior priorities, the depletions resulting from the domestic use of water pumped from the wells will need to be replaced to the Garfield Creek/Colorado River system during the irrigation season. This need can be met through the operation of the augmentation plan decreed in Case No. W-3262 by permanently removing 0.8 acre of land lying under the Moore Ditch from irrigation. This amount of dried up acreage was calculated at the average consumptive use rate of 1.379 AF per acre per year, as recognized in the decree.

The amount of land that will be withdrawn from irrigation as a result of the construction of streets and the dwelling units is expected to be about 29.2 acres, which is 28.4 acres more than what is required to augment the irrigation season domestic use depletions.

The decree recognizes that there is no senior demand for water from the Garfield Creek during the non-irrigation season, so there is no requirement to replace the P.U.D's depletions during that season to that system. Neither is there currently any non-irrigation season senior call from the Colorado River that would call out the P.U.D's junior well rights. Nevertheless, should such a call materialize, provision has been made through a contract with the West Divide Conservancy District to deliver of up to 1 AF of stored water to the Colorado River.

It is our opinion that the proposed Rapids on the Colorado P.U.D, as described in this letter, has an adequate physical and legal water supply to meet its full build out water demands.

Please call if you have any questions.

Very truly yours,

WRIGHT WATER ENGINEERS, INC.

By William L. Lorah
William L. Lorah, P.E.
Senior Consultant

cc: Jack Ross, Esq., Dufford & Brown, PC

D:\Work\WWE\991-999.177\Rapids on the Colorado, WSA.doc

TABLE 1
Rapids on the Colorado
Diversion and Depletion Requirements

MONTH	POTABLE WATER SYSTEM		DEPLETIONS	
	ACRE-FEET (1)	GALLONS PER MINUTE (2)	ACRE-FEET (3)	GALLONS PER MINUTE (4)
JANUARY	6.79	49.6	0.20	1.49
FEBRUARY	6.19	49.6	0.19	1.49
MARCH	6.79	49.6	0.20	1.49
APRIL	6.57	49.6	0.20	1.49
MAY	6.79	49.6	0.20	1.49
JUNE	6.57	49.6	0.20	1.49
JULY	6.79	49.6	0.20	1.49
AUGUST	6.79	49.6	0.20	1.49
SEPTEMBER	6.57	49.6	0.20	1.49
OCTOBER	6.79	49.6	0.20	1.49
NOVEMBER	6.57	49.6	0.20	1.49
DECEMBER	6.79	49.6	0.20	1.49
TOTAL	80.03		2.40	

GENERAL NOTES:
(1) 204 Equivalent Residential Units (EQR) at 350 gallons per day per EQR in AF/month
(2) Same as (1) except in gallons per minute (gpm)
(3) 3% of column (1)
(4) Same as (3) except in gpm

Wright Water Engineers Inc.
Des By: JSA
Ckd By: WLL
August 18, 2003

ON-SITE WELLS

Exhibit 11

GWS-25 COLOR DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St, Denver, Colorado 80203
(303) 866-3581

1095

WELL PERMIT NUMBER 049661 - F -

DIV. 5 CNTY. 23 WD 45 DES. BASIN MD

Lot: Block: Filing: SubdIv: RAPIDS ON THE COLORADO

APPLICANT

RAPIDS DEVELOPMENT CORP
2102 W ARAPAHOE DR
LITTLETON CO 80120-

(303)798-1640

APPROVED WELL LOCATION
GARFIELD COUNTY

SW 1/4 SW 1/4 Section 4
Twp 6 S RANGE 91 W 6th P.M.

DISTANCES FROM SECTION LINES
731 Ft. from South Section Line
1015 Ft. from West Section Line

PERMIT TO USE AN EXISTING WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.

2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.

3) Approved pursuant to CRS 37-90-137(2) on the condition that the well be operated in accordance with the Gene R. Hilton Augmentation Plan approved by the Division 5 Water Court in case no. W-3262. If the well is not operated in accordance with the terms of said decree, it will be subject to administration including orders to cease diverting water.

4) Approved for the use of an existing well, permit no. 47790-F (expired).

5) The use of ground water from this well is limited to a water supply for a 40 lot subdivision as decreed in case no. W-3262.

6) The maximum pumping rate shall not exceed 120 GPM.

7) The annual amount of ground water to be withdrawn shall not exceed 40.62 acre-feet.

8) A totalizing flow meter must be installed on this well and maintained in good working order. Permanent records of all diversions must be maintained by the well owner (recorded at least annually) and submitted to the Division Engineer upon request.

9) This well shall be located not more than 200 feet from the location specified on this permit, and not less than 600 feet from any existing well owned by others.

10) The owner shall mark the well in a conspicuous place with well permit number(s), name of the aquifer, and court case number(s) as appropriate. The owner shall take necessary means and precautions to preserve these markings. JD 4-6-98

APPROVED
JD2

Hal D. Simpson
State Engineer

Bruce E. DeBruine
By

Receipt No. 0426932B DATE ISSUED APR 07 1998 EXPIRATION DATE APR 07 1999

Form No. GWS-11 (10/00)

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
818 Centennial Bldg., 1313 Sherman St., Denver, CO 80203
(303) 866-3581 Fax (303) 866-3589

Office Use Only

RECEIVED

DEC 18 2001

WATER RESOURCES
STATE ENGINEER
COLO.

CHANGE IN OWNERSHIP/ADDRESS
CORRECTION OF THE WELL LOCATION

Insert the Well Permit Number 049661-F

Name, address and phone of the person claiming ownership of the well:

NAME(S) Rapids on the Colorado Homeowners Assn c/o Gene R. Hilton

Mailing Address 2102 West Arapahoe Drive

City, St. Zip Littleton, CO 80120-3008

Phone (303) 798-1640

If your well has an absolute water right, decreed by the court and the well is not registered with the State Engineer, enter the Water Court Case Number / Civil Action Number and well number as decreed.

This form is filed by the named individual/entity claiming that they are the owner of the well permitted as referenced above. This filing is made pursuant to C.R.S. 37-90-143.

WELL LOCATION: County Garfield Owner's Well Designation Rapids Well No. 1

(Address) (City) (State) (Zip)

SW 1/4 of the SW 1/4, Sec. 4, Twp. 6 ☐ N. or ☑ S., Range 91 ☐ E. or ☑ W., 6TH P.M.

Distance from Section Lines 731 Ft. From ☐ N. or ☒ S., 1015 Ft. From ☐ E. or ☒ W. Line.

Subdivision Name Rapids on the Colorado Lot , Block , Filing/Unit

The above listed owner(s) say(s) that he, she (they) own the well described herein. The existing record is being amended for the following reasons: ☒ Change in name of owner ☐ Change in mailing address

☐ Correction of location for exempt wells permitted prior to May 8, 1972 and non-exempt wells permitted before May 17, 1965. Please see the reverse side for further information regarding correction of the well location.

I (we) claim and say that I (we) (are) the owner(s) of the well described above and that the commencement of extraction of ground water from this well, lawfully made under the well permit, occurred on the date indicated, and that the statements made herein are true to my (our) knowledge.

Please print the Signer's Name & Title	Signature(s) of the new owner.	Date
Gene R. Hilton, President	Rapids on the Colorado River Homeowners Association By: Gene R. Hilton, President	18 Dec. 2001

It is the responsibility of the new owner of this well to complete and sign the form. Signatures of agents are acceptable if an original letter of agency signed by the owner is attached to the form upon its receipt.

For Office Use Only

ACCEPTED AS A CHANGE IN OWNERSHIP AND/OR MAILING ADDRESS.

Hal D. Simpson
State Engineer

By Jeff Deatherage

12-18-2001
Date

No. -25

OFFICE OF THE STATE ENGINEER
COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203
(303) 866-3581

1095

WELL PERMIT NUMBER 047790 - F -

DIV. 5 CNTY. 23 WD 45 DES. BASIN MD

Lot: Block: Filing: Subdiv: RAPIDS ON THE COLORADO

APPLICANT

GENE R HILTON
2102 W ARAPAHOE DR
LITTLETON CO 80120-

(303)798-1640

APPROVED WELL LOCATION
GARFIELD COUNTY

SW 1/4 SW 1/4 Section 4
Twp 6 S RANGE 91 W 6th P.M.

DISTANCES FROM SECTION LINES
731 Ft. from South Section Line
1015 Ft. from West Section Line

PERMIT TO USE AN EXISTING WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.

2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.

Approved pursuant to CRS 37-90-137(2) on the condition that the well be operated in accordance with the Gene R. Hilton Augmentation Plan approved by the Division 5 Water Court in case no. W-3262. If the well is not operated in accordance with the terms of said decree, it will be subject to administration including orders to cease diverting water.

4) The use of ground water from this well is limited to a water supply for a 40 lot subdivision as decreed in case no. W-3262.

5) The maximum pumping rate shall not exceed 120 GPM.

The annual amount of ground water to be withdrawn shall not exceed 40.62 acre-feet.

A totalizing flow meter must be installed on this well and maintained in good working order. Permanent records of all diversions must be maintained by the well owner (recorded at least annually) and submitted to the Division Engineer upon request.

8) This well shall be located not more than 200 feet from the location specified on this permit, and not less than 600 feet from any existing well owned by others.

The owner shall mark the well in a conspicuous place with well permit number(s), name of the aquifer, and court case number(s) as appropriate. The owner shall take necessary means and precautions to preserve these markings.

) Approved for the installation of a pump in, and the use of, an existing well, constructed on April 1, 1996, to a depth of 82 feet, under monitoring hole notice MH-27684-A, acknowledged March 26, 1996.

JD 1-9-97

COPY

APPROVED
JD2

Hal D. Simpson
State Engineer

Bruce E. DeBrine
By

Receipt No. 0402397A DATE ISSUED JAN 13 1997 EXPIRATION DATE JAN 13 1998

WELL CONSTRUCTION AND TEST REPORT

FOR OFFICE USE ONLY

STATE OF COLORADO, OFFICE OF THE STATE ENGINEER

1. WELL PERMIT NUMBER MH-27684-A

Owner Name(s) : Gene Hilton
Mailing Address : % 802 Grand Ave. Ste # 325
City, St. Zip : Glenwood Springs, Co. 81601
Phone (970) 945-2236

APPROVAL # GWS31-91-03

3. WELL LOCATION AS DRILLED: SW 1/4 SW 1/4 Sec. 4 Twp. 06S Range 91W
DISTANCES FROM SEC. LINES:
731 ft. from South Sec. line. and 1015 ft. from West Sec. line. OR
SUBDIVISION : LOT BLOCK FILING(UNIT)
STREET ADDRESS AT WELL LOCATION :

GROUND SURFACE ELEVATION ft. DRILLING METHOD Air Rotary
DATE COMPLETED 04/01/96 TOTAL DEPTH 82 ft. DEPTH COMPLETED 82 ft.

5. GEOLOGIC LOG :

Depth	Type of Material (Size, Color, and Type)
000-010	Dirt, Topsoil, Small Rocks
010-082	Wasatch Formation

6. HOLE DIAM. (in)

HOLE DIAM. (in)	FROM (ft)	TO (ft)
9.0	0	27
6.5	27	82

7. PLAIN CASING

OD (in)	Kind	Wall Size	From (ft)	To (ft)
7.0	Steel	0.240	-1	27
5.5	PVC	0.252	22	52

PERF. CASING : Screen Slot Size :

5.5	PVC	.250	52	82

8. Filter Pack
Material :
Size :
Interval :

9. Packer Placement
Type : Formation
Depth : 30

WATER LOCATED : 50 - 55

REMARKS :

RAPIDS WELL NO. 1

10. GROUTING RECORD :

Material	Amount	Density	Interval	Placement
cement	3 sks	16 gal	7-27	poured

11. DISINFECTION : Type : HTH Amt. Used : 2 oz.

12. WELL TEST DATA : [ ] Check Box If Test Data is Submitted On Supplemental Form.
TESTING METHOD : Air Compressor
Static Level : 13 ft. Date/Time Measured : 04/01/96 Production Rate : 20 gpm.
Pumping Level : Total ft. Date/Time Measured : 04/01/96 Test Length : 2 hrs.
Remarks :

I have read the statements made herein and know the contents thereof, and that they are true to my knowledge. (Pursuant to Section 24-4-104 (13)(a) CRS, the making of false statements constitutes perjury in the second degree and is punishable as a class 1 misdemeanor.)

CONTRACTOR : Shelton Drilling Corp. Phone : (970) 927-4182
Mailing Address : P.O. Box 1059 Basalt CO 81621 Lic No. 1095

Name / Title (Please Type or Print)	Signature	Date
Wayne Shelton / President	Wayne Shelton	05/20/96

COLORADO DIVISION OF WATER RESOURCES

Exhibit 11

818 Centennial Bldg., 1313 Sherman St. Denver, Colorado 80203
(303) 866-3581

1095

WELL PERMIT NUMBER 049660 - F -

DIV. 5 CNTY. 23 WD 45 DES. BASIN MD

Lot: Block: Filing: Subdiv: RAPIDS ON THE COLORADO

APPLICANT

RAPIDS DEVELOPMENT CORP
2102 W ARAPAHOE DR
LITTLETON CO 80120-

(303)798-1640

APPROVED WELL LOCATION
GARFIELD COUNTY

SW 1/4 SW 1/4 Section 4
Twp 6 S RANGE 91 W 6th P.M.

DISTANCES FROM SECTION LINES
560 Ft. from South Section Line
654 Ft. from West Section Line

PERMIT TO USE AN EXISTING WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.

2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.

3) Approved pursuant to CRS 37-90-137(2) on the condition that the well be operated in accordance with the Gene R. Hilton Augmentation Plan approved by the Division 5 Water Court in case no. W-3262. If the well is not operated in accordance with the terms of said decree, it will be subject to administration including orders to cease diverting water.

4) Approved for the use of an existing well, permit no. 47791-F (expired).

5) The use of ground water from this well is limited to a water supply for a 40 lot subdivision as decreed in case no. W-3262.

6) The maximum pumping rate shall not exceed 70 GPM.

7) The annual amount of ground water to be withdrawn shall not exceed 24.9 acre-feet.

8) A totalizing flow meter must be installed on this well and maintained in good working order. Permanent records of all diversions must be maintained by the well owner (recorded at least annually) and submitted to the Division Engineer upon request.

9) This well shall be located not more than 200 feet from the location specified on this permit, and not less than 600 feet from any existing well owned by others.

10) The owner shall mark the well in a conspicuous place with well permit number(s), name of the aquifer, and court case number(s) as appropriate. The owner shall take necessary means and precautions to preserve these markings. JD 4-6-98

APPROVED
JD2

Hal D. Simpson
State Engineer

Bruce E. DeBrine
By

Receipt No. 0426932A DATE ISSUED APR 07 1998 EXPIRATION DATE APR 07 1999

m
No.
GWS-11
'00

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
818 Centennial Bldg., 1313 Sherman St., Denver, CO 80203
(303) 866-3581 Fax (303) 866-3589

For ce Use Only

RECEIVED

DEC 18 2001

WATER RESOURCES
STATE ENGINEER
COLO.

CHANGE IN OWNERSHIP/ADDRESS
CORRECTION OF THE WELL LOCATION

Insert the Well Permit Number 049660-F

ame, address and phone of the person claiming ownership of the well:

AME(S) RAPIDS ON THE COLORADO HOMEOWNERS ASSN c/o GENE R. HILTON

Mailing Address 2102 WEST ARAPAHOE DRIVE

ity, St. Zip LITTLETON, CO 80120-3008

hone (303) 798-1640

If your well has an absolute water right, decreed by the court and the well is not registered with the State Engineer, enter the Water Court Case Number / Civil Action Number and well number as decreed.

his form is filed by the named individual/entity claiming that they are the owner of the well permitted as referenced above. This filing is made pursuant to C.R.S. 37-90-143.

/ELL LOCATION: County GARFIELD Owner's Well Designation RAPIDS WELL No. 2

(Address) (City) (State) (Zip)

SW 1/4 of the SW 1/4, Sec. 4, Twp. 6 ☐ N. or ☒ S., Range 91 ☐ E. or ☒ W., 6 P.M.

tance from Section Lines 560 Ft. From ☐ N. or ☒ S., 654 Ft. From ☐ E. or ☒ W. Line.

Subdivision Name RAPIDS ON THE COLORADO Lot , Block , Filing/Unit

The above listed owner(s) say(s) that he, she (they) own the well described herein. The existing record is being amended for the following reasons: ☒ Change in name of owner ☐ Change in mailing address

☐ Correction of location for exempt wells permitted prior to May 8, 1972 and non-exempt wells permitted before May 17, 1965. Please see the reverse side for further information regarding correction of the well location.

(we) claim and say that I (we) (are) the owner(s) of the well described above and that the commencement of extraction of ground water from this well, lawfully made under the well permit, occurred on the date indicated, and hat the statements made herein are true to my (our) knowledge.

Please print the Signer's Name & Title	Signature(s) of the new owner.	Date
GENE R. HILTON, PRESIDENT	RAPIDS ON THE COLORADO HOMEOWNERS ASSN. By Gene R Hilton, President	18 DEC 2001

t is the responsibility of the new owner of this well to complete and sign the form. Signatures of agents are acceptable if an original letter of agency signed by the owner is attached to the form upon its receipt.

For Office Use Only

ACCEPTED AS A CHANGE IN OWNERSHIP
AND/OR MAILING ADDRESS.

Hal D. Simpson
State Engineer

By Jay Deatley

12-18-2001
Date

No.
' v-25

OFFICE OF THE STA' ENGINEER
COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203
(303) 866-3581

1095

WELL PERMIT NUMBER 047791 - F -
DIV. 5 CNTY. 23 WD 45 DES. BASIN MD

·PLICANT

Lot: Block: Filing: Subdiv: RAPIDS ON THE COLORADO

GENE R HILTON
2102 W ARAPAHOE DR
LITTLETON CO 80120-

(303)798-1640

APPROVED WELL LOCATION
GARFIELD COUNTY
SW 1/4 SW 1/4 Section 4
Twp 6 S RANGE 91 W 6th P.M.

DISTANCES FROM SECTION LINES
560 Ft. from South Section Line
654 Ft. from West Section Line

ERMIT TO USE AN EXISTING WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.

2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.

. Approved pursuant to CRS 37-90-137(2) on the condition that the well be operated in accordance with the Gene R. Hilton Augmentation Plan approved by the Division 5 Water Court in case no. W-3262. If the well is not operated in accordance with the terms of said decree, it will be subject to administration including orders to cease diverting water.

) The use of ground water from this well is limited to a water supply for a 40 lot subdivision as decreed in case no. W-3262.

5) The maximum pumping rate shall not exceed 70 GPM.

) The annual amount of ground water to be withdrawn shall not exceed 24.9 acre-feet.

7) A totalizing flow meter must be installed on this well and maintained in good working order. Permanent records of all diversions must be maintained by the well owner (recorded at least annually) and submitted to the Division Engineer upon request.

8) This well shall be located not more than 200 feet from the location specified on this permit, and not less than 600 feet from any existing well owned by others.

) The owner shall mark the well in a conspicuous place with well permit number(s), name of the aquifer, and court case number(s) as appropriate. The owner shall take necessary means and precautions to preserve these markings.

0) Approved for the installation of a pump in, and the use of, an existing well, constructed on April 12, 1996, to a depth of 82 feet, under monitoring hole notice MH-27684-B, acknowledged March 26, 1996.

JD 1-9-97

OWNER'S COPY

.. PROVED
JD2

Hal D. Simpson
State Engineer

Bruce E. DeBrine
By

ceipt No. 0402397B

DATE ISSUED JAN 13 1997

EXPIRATION DATE JAN 13 1998

WELL CONSTRUCTION AND TEST REPORT

STATE OF COLORADO, OFFICE OF THE STATE ENGINEER

FOR OFFICE USE ONLY

WELL PERMIT NUMBER MH-27684-B

Owner Name(s) : Gene Hilton

Mailing Address : 802 Grand Ave. Ste # 325

City, St. Zip : Glenwood Springs, Co. 81601

Phone (970) 945-2236

APPROVAL # GWS31-91-03

3. WELL LOCATION AS DRILLED: SW 1/4 SW 1/4 Sec. 4 Twp. 6 Range. 91W

DISTANCES FROM SEC. LINES:

560 ft. from South Sec. line. and 654 ft. from West Sec. line. OR

SUBDIVISION : LOT BLOCK FILING(UNIT)

STREET ADDRESS AT WELL LOCATION :

4. GROUND SURFACE ELEVATION ft. DRILLING METHOD Air Rotary

DATE COMPLETED 04/12/96 TOTAL DEPTH 82 ft. DEPTH COMPLETED 82 ft.

5. GEOLOGIC LOG :

Depth	Type of Material (Size, Color, and Type)
000-010	Clays, Rocks
010-015	Rocks, Gravels
015-082	Wasatch Formation

6. HOLE DIAM. (in)

HOLE DIAM. (in)	FROM (ft)	TO (ft)
9.0	0	29
6.5	29	82

7. PLAIN CASING

OD (in)	Kind	Wall Size	From (ft)	To (ft)
7.0	Steel	0.240	-1	29
5.5	PVC	0.250	22	52

PERF. CASING : Screen Slot Size :

5.5	PVC	.250	52	82

8. Filter Pack

Material :

Size :

Interval :

9. Packer Placement

Type : Formation

Depth : 30

WATER LOCATED : 52 - 56

REMARKS :

RAPIDS WELL No. 2

10. GROUTING RECORD :

Material	Amount	Density	Interval	Placement
cement	3 sks	16 gal	9-29	poured

11. DISINFECTION : Type : HTH Amt. Used : 2 oz.

12. WELL TEST DATA : [ ] Check Box If Test Data is Submitted On Supplemental Form.

TESTING METHOD : Air Compressor

Static Level : 18 ft. Date/Time Measured : 04/12/96 Production Rate : 20 gpm.

Pumping Level : Total ft. Date/Time Measured : 04/12/96 Test Length : 2 hrs.

Remarks :

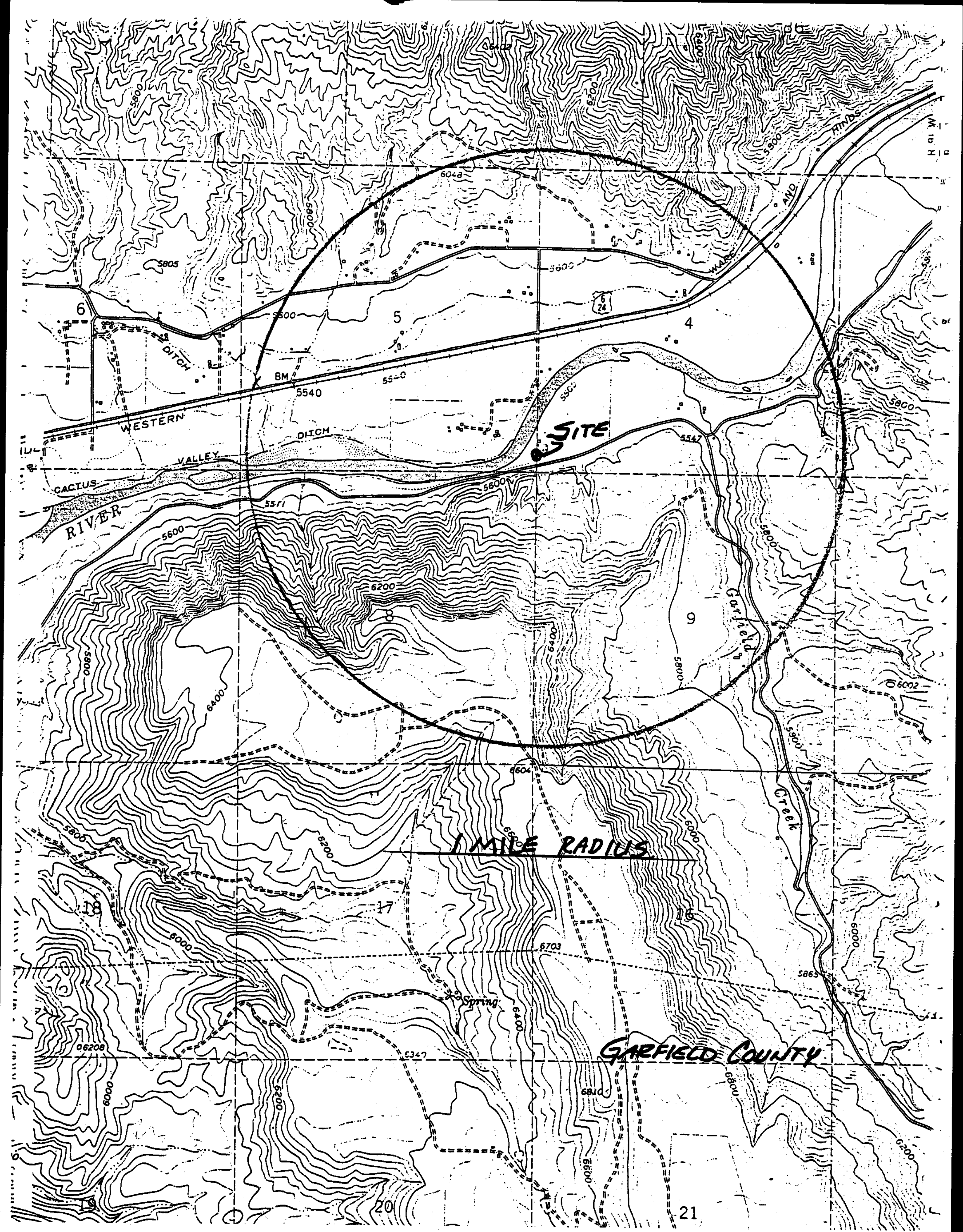
13. I have read the statements made herein and know the contents thereof, and that they are true to my knowledge (Pursuant to Section 24-4-104 (13)(a) CRS, the making of false statements constitutes perjury in the second degree and is punishable as a class 1 misdemeanor.)

CONTRACTOR : Shelton Drilling Corp. Phone : (970) 927-4182

Mailing Address : P.O. Box 1059 Basalt CO 81621 Lic. No 1095

Name / Title (Please Type or Print)	Signature	Date
Wayne Shelton / President	Wayne Shelton	05/20/96

WELLS WITHIN 1 MILE RADIUS


SITE
1 MILE RADIUS
GARFIELD COUNTY
WESTERN
DITCH
VALLEY
CACTUS
RIVER
Garfield
Creek
Spring
BM
5540
5600
5547
5571
5800
6200
6400
6604
6703
6002
5865
6208
6048
5805
6
5
4
8
9
17
16
18
20
21

PERMIT D CO OWNER INFORMATION

ACTIVITY STATUS 1ST USED ANNUAL ACRES GEOL WELL WELL WATER SEC LOCAT'N TOWN P
CD DATE CD DATE WD MD DB USE DATE APROP IRR AQFR YIELD DEPTH LEVEL COORDINATES QTRS SC SHIP RANGE M

22417MH 5 23 LOGAN MARY C/O SHELTON DRILLING BASALT, CO 81621
MH 03/04/94 45 GW 15.00 17 15 NE 4 6 S 91 W S

119053 5 23 WILLISON H T GLENWD SPG, CO 81601
NP 03/02/81 39 GW NWNE 4 6 S 91 W S

141897 5 23 BALL GARY M & SHERRY A 39053 HIGHWAY 6 NEW CASTLE, CO 81647 LOT 1
NP 08/19/85 OC 07/15/99 45 02/01/87 GW 13.00 143 48 0550N,1600E NWNE 4 6 S 91 W S

119053 A 5 23 WILLISON HENRY T 0344 CORYELL RD GLENWOOD SPGS, CO 81601
NP 07/25/90 45 GW 0200N,1375E NWNE 4 6 S 91 W S

98231 5 23 MILLER THEADOR A 39051 HIGHWAY 6 NEW CASTLE, CO 81647
OC 10/09/97 39 D 06/01/78 1.00 GW 15.00 130 60 0400N,1405E NWNE 4 6 S 91 W S

177788 5 23 LOGAN MARY EDITH P O BOX 2771 GLENWOOD SPGS, CO 81602
NP 04/07/94 39 D GW 3450S,1025E SENE 4 6 S 91 W S

131675 A 5 23 DUNN P A GRAND JUNCTN, CO 81501
NP 07/13/83 39 DS GW SWNE 4 6 S 91 W S

18906 5 23 TARRO JAMES NEW CASTLE, CO 81647
45 DS 03/13/64 GW 15.00 83 60 SWNE 4 6 S 91 W S

113336 5 23 FRIGGE CHARLES N & IRENE E 6809 CO RD 214 NEW CASTLE, CO 81647-9786 LOT 2 HAYES EXEMPTION
NP 03/10/80 OC 12/09/97 39 GW 15.00 90 53 1300N,1600W NENW 4 6 S 91 W S

151043 5 23 HAYES PATRICK 6809 214 RD NEW CASTLE, CO 81647
AB 01/13/88 AB 08/20/88 45 D 12/31/17 1.50 GW 15.00 70 1275N,1550W NENW 4 6 S 91 W S

151043 A 5 23 HAYES PATRICK 6809 214 RD NEW CASTLE, CO 81647
NP 01/13/88 45 D 06/27/88 GW 15.00 103 36 1275N,1550W NENW 4 6 S 91 W S

232511 5 23 JOHNSON BRECK 0353 MTN SHADOWS DR GLENWOOD SPRING, CO 81601 LOT 4 HAYES EXEMPTION
NP 04/13/01 39 GW 10.00 201 110 3984S,3120E NENW 4 6 S 91 W S

137527 5 23 COLBY ED & LINDA 6765 COUNTY RD 214 NEW CASTLE, CO 81647 LOT 4
CP 08/21/84 RC 06/10/93 45 GW 10.00 125 1150N,1200W NWNW 4 6 S 91 W S

71073 5 23 JOHNSON HOMER C 6611 CO RD 214 NEW CASTLE, CO 81647 LOT 4
CA CA 10/07/94 45 D GW 0390N,0800W NWNW 4 6 S 91 W S

19330F 5 23 JOHNSON HOMER C & LORETTA A 6611 CO RD 214 NEW CASTLE, CO 81647 LOT 4
EP 02/15/74 EP 10/04/94 45 I 10/30/73 GW 75.00 215 17 0390N,0800W NWNW 4 6 S 91 W S

107874 5 23 THURSTIN ELDON 0349 APPLE DR NEW CASTLE, CO 81647
NP 06/01/79 39 11/01/79 GW 7.00 200 60 1025N,1015W NWNW 4 6 S 91 W S

25157F 5 23 HUGHES DAVID J 4606 154TH RD GLENWOOD SPRGS, CO 81601
EP 10/20/80 EP 01/14/82 45 M GW 20.00 126 90 1100N,0300W NWNW 4 6 S 91 W S

4599 A 5 23 NISBET DONALD G 6533 CR 214 NEW CASTLE, CO 81647 LOT 4
NP 05/26/81 RC 02/05/92 39 D 03/25/82 GW 5.00 150 123 1050N,0070W NWNW 4 6 S 91 W S

125194 5 23 MORRIS S J GLENWOOD SP, CO 81601 LOT 5 HUGHES MINOR
NP 04/16/82 AR 04/29/82 39 D GW 0748N,0250W NWNW 4 6 S 91 W S

175387 5 23 HANSON JOHN C & BEVERLY V 6609 214 ROAD NEW CASTLE, CO 81647 LOT 1 HUGHES MINOR SUBDIV EXEMPT
NP 12/06/93 OC 05/27/99 39 D 1.00 GW 2.50 200 58 0325N,0400W NWNW 4 6 S 91 W S

175388 5 23 BOSELY MARY ANNE BOX 26 WOODY CREEK, CO 81656 LOT 2 HUGHES MINOR SUBDIV EXEMPT
EP 12/06/93 EP 12/20/95 39 D GW 0325N,0242W NWNW 4 6 S 91 W S

175389 5 23 BOSELY MARY ANNE BOX 26 WOODY CREEK, CO 81656 LOT 3 HUGHES MINOR SUBDIV EXEMPT
EP 12/06/93 EP 12/20/95 39 D GW 0325N,0086W NWNW 4 6 S 91 W S

175390 5 23 BOSELY MARY ANNE P O BOX 26 WOODY CREEK, CO 81656 LOT 4 HUGHES MINOR
NP 12/06/93 RC 04/08/94 39 D GW 0550N,0300W NWNW 4 6 S 91 W S

44154F R 5 23 WHITE JOHN A 6611 RD 214 NEW CASTLE, CO 81647
NP 08/12/94 39 D GW 0475N,0800W NWNW 4 6 S 91 W S

PERMIT D CO OWNER INFORMATION

PERMIT	ACTIVITY CD	ACTIVITY DATE	STATUS CD	STATUS DATE	WD	MD	DB	USE	1ST USED DATE	ANNUAL APROP	ACRES IRR	GEOL AQFR	WELL YIELD	WELL DEPTH	WATER LEVEL	SEC LOCAT'N COORDINATES	QTRS	SC	TOWN SHIP	RANGE
44154F	5	23	WHITE JOHN 6611 RD 214 NEW CASTLE, CO 81647																	
	NP	10/07/94			39		D					GW				0406N,0710W	NWNW	4	6 S	91 W
195613	5	23	BOSELY MARY ANNE BOX 26 WOODY CREEK, CO 81656 LOT 2 HUGHES MINOR																	
	NP	04/24/96			39		D					GW				0325N,0242W	NWNW	4	6 S	91 W
195614	5	23	BOWLES LONNIE & ANN P O BOX 946 NEW CASTLE, CO 81647 LOT 3 HUGHES MINOR																	
	NP	04/24/96	OC	02/26/98	39		D					GW	1.00	200	130	0325N,0086W	NWNW	4	6 S	91 W
195611	5	23	HUGHES DAVID J 6609 214 RD NEW CASTLE, CO 81647 LOT 6 HUGHES MINOR																	
	NP	04/24/96			39		D					GW				1200N,0300W	NWNW	4	6 S	91 W
42155	5	23	BRADLEY FRANCIS O 1220 BLAKE GLENWOOD SPRING, CO 81601																	
	EP	07/20/70					D					GW					NWNW	4	6 S	91 W
4599	5	23	MCCLURE FINIS NEW CASTLE, CO 81647																	
	AB	10/01/59	AB	11/17/81	39		D		08/20/60			GW	5.00	150	47		NWNW	4	6 S	91 W
107874	A	5	23	THURSTIN ELDON 6709 COUNTY ROAD 214 NEW CASTLE, CO 81647																
	NP	03/01/02			39							GW				1225N,1015W	NWNW	4	6 S	91 W
37427MH	5	23	JOHNSON BRECK C/O COLLINS DRILLING CARBONDALE, CO 81623 LOT 4 HAYES EXEMPTION																	
	MH	11/30/99	RC	04/13/01	39							GW	10.00	201	110		SENW	4	6 S	91 W
110790	5	23	SHAFFER P E GLENWOOD SPG, CO 81601																	
	NP	09/14/79			45							GW					SENW	4	6 S	91 W
119031	5	23	DE KALB D. CARBONDALE, CO 81623																	
	NP	03/12/81	RC		39							GW					SENW	4	6 S	91 W
122251	5	23	TRIPLAT T J RIFLE, CO 81650																	
	NP	05/13/81	AR	06/05/81	39							GW					SENW	4	6 S	91 W
121828	5	23	GERKMAN JR PETER P O BOX 374C STUYVESANT, NY 12173																	
	NP	07/06/81	AR	08/07/81	39							GW	5.00	100		1420N,1550W	SENW	4	6 S	91 W
134852	5	23	BRUNO J.V. NEW CASTLE, CO 81647																	
	EX	02/08/84	RC		45							GW					SENW	4	6 S	91 W
135077	5	23	TRIPLAT T J NEW CASTLE, CO 81647																	
	NP	04/12/84			39							GW					SENW	4	6 S	91 W
119031	A	5	23	COLLER MARVIN NEW CASTLE, CO 81647																
	NP	02/06/86	RC	03/24/88	39							GW					SENW	4	6 S	91 W
49865F	5	23	RICHARDS WILLIAM D 7040 CO RD 214 NEW CASTLE, CO 81647 LOT 2 TARRO EXEMPTION																	
	EX	05/06/91	EX	06/23/99	39		D					GW	15.00	60	12	3200S,2800E	SENW	4	6 S	91 W
121828	A	5	23	BREDA ART & LAURIE 716 COWDIN GLENWOOD SPGS, CO 81601																
	NP	05/16/94			45							GW	15.00	140	70	1370N,1550W	SENW	4	6 S	91 W
43695F	5	23	TOLER THOM & CAMILLE 1756 241 RD NEW CASTLE, CO 81547 LOT 3 HAYES EXEMPTION																	
	NP	06/06/94			39		D					GW				3960S,3360E	SENW	4	6 S	91 W
45586F	5	23	CARLTON WILLIAM C P O BOX 275 NEW CASTLE, CO 81647 LOT 3 HAYES EXEMPTION																	
	EX	09/01/95	OC	07/31/97	39		D					GW	4.00	120	72	3960S,3360E	SENW	4	6 S	91 W
111060	5	23	IVIE LENARD E. & PEGGY J. 6810 214 RD. NEW CASTLE, CO 81647																	
					39		D		11/02/81	1.00		GW	15.00	155	80	1810N,1692W	SENW	4	6 S	91 W
113419	5	23	BRUNO JOHN V. 6850 W 214 RD. NEW CASTLE, CO 81647																	
					39		D		04/10/81			GW	15.00	140		1620N,1990W	SENW	4	6 S	91 W
54662	A	5	23	IVIE L NEW CASTLE, CO 81647																
	NP	12/15/80			39		D					GW					SWNW	4	6 S	91 W
126733	5	23	MURR R J NEW CASTLE, CO 81647																	
	NP	02/01/82	AR	03/18/82	45		D					GW					SWNW	4	6 S	91 W
47909F	5	23	PEACH VALLEY PARTNERS LLC P O BOX 2607 BRECKENRIDGE, CO 80424																	
	NP	12/16/96	OC	09/27/00	39		DS					GW	25.00	126	25	3900S,0390W	SWNW	4	6 S	91 W

PERMIT D CO OWNER INFORMATION

PERMIT	ACTIVITY CD	ACTIVITY DATE	STATUS CD	STATUS DATE	WD	MD	DB	USE	1ST USED DATE	ANNUAL APROP	ACRES IRR	GEOL AQFR	WELL YIELD	WELL DEPTH	WATER LEVEL	SEC LOCAT'N COORDINATES	QTRS	SC	TOWN SHIP	RANGE	M
65494	A	5 23 PEACH VALLEY PARTNERS HOGAN MARILYN & MARC BRECKENRIDGE, CO 80424																			
	NP	09/13/00			45							GW	15.00	106	80	1350N,0800W	SWNW	4	6 S	91 W	S
65494	A	5 23 PEACH VALLEY PARTNERS LLC BOX 2607 BRECKENRIDGE, CO 80424																			
	NP	06/11/01			45							GW	10.00	127	87	1350N,0800W	SWNW	4	6 S	91 W	S
54662		5 23 IVIE LENARD E & PEGGY J. 39490 HWY 6 & 24 NEW CASTLE, CO 81647																			
					39		D		01/18/81		1.00	GW	15.00	240	80	1960N,1392W	SWNW	4	6 S	91 W	S
65494		5 23 MELTON EVAN TMOTHY & FAHRLENDER M L P O BOX 396 CARBONDALE, CO 81623																			
	NP	08/21/72	OC	12/31/96	45				01/31/73			GW	15.00	115	91	1490N,0720W	SWNW	4	6 S	91 W	S
20285F		5 23 BRENNAN PROPERTIES INC 4039 CO RD 335 NEW CASTLE, CO 81647																			
	NP	11/25/75			39		ID		09/30/76			GW		75		1547S,2494E	NWSE	4	6 S	91 W	S
20285F	R	5 23 BRENNAN PROPERTIES NEW CASTLE, CO 81647 LOT 10																			
	NP	10/20/75	RC	06/30/97	39		I					GW		75		1480S,2494E	NWSE	4	6 S	91 W	S
20285F	R	5 23 BRANNAN PROPERTIES PO BOX 489 GLENWOOD SPRING, CO 81602																			
	NP	09/16/02			45		D				3.00	GW				1480S,2494E	NWSE	4	6 S	91 W	S
27683MH		5 23 HILTON GENE R % ENARTECH INC GLNWD SPRINGS, CO 81602																			
	MH	03/21/96			45							GW	6.00	30	7		NESW	4	6 S	91 W	S
22309F		5 23 HILTON G R GLENWOOD SPN, CO 81601																			
	NP	04/29/77			45		I					GW					NESW	4	6 S	91 W	S
148028		5 23 PAYNE LAWRENCE W 38992 W HWY 6 & 24 NEW CASTLE, CO 81647																			
	NP	05/18/87			45		D					GW	15.00	20		2400S,2300W	NESW	4	6 S	91 W	S
148028	A	5 23 ALCORN EARLENE K & CLYDE DALE 38992 RIVER FRONTAGE RD NEW CASTLE, CO 81647																			
	NP	05/18/87	OC	08/12/97	45		D					GW	15.00	70	20	2500S,2300W	NESW	4	6 S	91 W	S
47793F		5 23 HILTON GENE R 2102 W ARAPAHOE DR LITTLETON, CO 80120 LOT 19 RAPIDS ON THE COLORADO																			
	NP	06/18/96	AR	12/20/96	45		I					GW	6.00	30	7	1721S,2439W	NESW	4	6 S	91 W	S
		5 23 RAPIDS DEVELOPMENT CORPORATION 2102 W ARAPAHOE DRIVE LITTLETON, CO 80120 LOT 19 RAPIDS ON THE COLORADO																			
	AP	04/18/00	AU	05/31/00	39		I					GW				1721S,2439W	NESW	4	6 S	91 W	S
2487		5 23 HESS ALFRED NEW CASTLE, CO 81647																			
					39		D		12/17/58			GW	5.00	85	55		NESW	4	6 S	91 W	S
22310F		5 23 HILTON GENE R BOX 1008 GLENWOOD SPGS, CO 81601																			
	EP	04/29/77	EP	01/10/97	39		I					GW				1800S,1300W	NWSW	4	6 S	91 W	S
170369		5 23 BAILEY ARLIE BOX 460 NEW CASTLE, CO 81647																			
	NP	01/29/90	AR	05/28/93	39							GW	15.00	100	30	1898S,0280W	NWSW	4	6 S	91 W	S
		5 23 HILTON GENE R 2102 W ARAPAHOE DR LITTLETON, CO 80120																			
	AP	09/08/97	AU	12/11/97	45		D					GW				1540S,1120W	NWSW	4	6 S	91 W	S
115109		5 23 COLLINS KENNETH R 3839 CNTY RD 335 NEW CASTLE, CO 81647																			
					39		D		12/30/52		1.00	GW	7.00	150		1190S,2440W	SESW	4	6 S	91 W	S
27684MH		5 23 HILTON GENE R % ENARTECH INC GLNWD SPRINGS, CO 81602																			
	MH	03/21/96			45							GW	20.00	82	13		SWSW	4	6 S	91 W	S
22311F		5 23 HILTON GENE R BOX 1008 GLENWOOD SPGS, CO 81601																			
	EP	04/29/77	EP	01/10/97	45		I					GW				0750S,0075W	SWSW	4	6 S	91 W	S
47790F		5 23 HILTON GENE R 2102 W ARAPAHOE DR LITTLETON, CO 80120 RAPIDS ON THE COLORADO																			
	EP	06/18/96	EP	04/06/98	45		CD					GW	20.00	82	13	0731S,1015W	SWSW	4	6 S	91 W	S
47791F		5 23 HILTON GENE R 2102 W ARAPAHOE DR LITTLETON, CO 80120 RAPIDS ON THE COLORADO																			
	EP	06/18/96	EP	04/06/98	45		CD					GW	20.00	82	18	0560S,0654W	SWSW	4	6 S	91 W	S
47792F		5 23 HILTON GENE R 2102 W ARAPAHOE DR LITTLETON, CO 80120 LOT 1 RAPIDS ON THE COLORADO																			
	NP	06/18/96	AR	12/20/96	45		I					GW	10.00	80	12	0590S,0102W	SWSW	4	6 S	91 W	S
49660F		5 23 RAPIDS ON THE COLORADO HOA C/O GENE R HILTON LITTLETON, CO 80120-3008 RAPIDS ON THE COLORADO																			
	NP	02/23/98	OC	12/18/01	45		CD					GW	50.00	82	16	0560S,0654W	SWSW	4	6 S	91 W	S

PERMIT D CO OWNER INFORMATION

PERMIT	ACTIVITY CD	ACTIVITY DATE	STATUS CD	STATUS DATE	WD	MD	DB	USE	1ST USED DATE	ANNUAL APROP	ACRES IRR	GEOL AQFR	WELL YIELD	WELL DEPTH	WATER LEVEL	SEC LOCAT'N COORDINATES	QTRS	SC	TOWN SHIP	RANGE
49661F	5	23	RAPIDS ON THE COLORADO HOA C/O GENE R HILTON LITTLETON, CO 80120-3008													RAPIDS ON THE COLORADO				
	NP	02/23/98	OC 12/18/01	45		CD						GW	80.00	82	15	0731S,1015W	SWSW	4	6 S	91 W
	5	23	RAPIDS DEVELOPMENT CORPORATION 2102 W ARAPAHOE DRIVE LITTLETON, CO 80120 LOT 1 RAPIDS ON THE COLORADO																	
	AP	04/18/00	AU 05/31/00	39		I				1.00		GW	10.00	80	12	0590S,0102W	SWSW	4	6 S	91 W
21363	5	23	KING W Z NEW CASTLE, CO 81647																	
				45		D			08/30/64			GW	2.00	130	28		SWSW	4	6 S	91 W
123412	5	23	SNYDER F L NEW CASTLE, CO 81647																	
	NP	11/17/81	RC 11/17/81	39								GW						5	6 S	91 W
	5	23	YORK D GLENWOOD SPR, CO 81601																	
	AP	06/05/84	AU 07/05/84	39								GW					NENE	5	6 S	91 W
111594	A	5	23	CHENOWETH JIM & SHARON 6397 214 RD NEW CASTLE, CO 81647																
	NP	10/25/79	LC 08/23/02	39		D						GW	3.00	296	60	1200N,0840E	NENE	5	6 S	91 W
112000	5	23	MORLEY GARY L 6503 COUNTY ROAD 214 NEW CASTLE, CO 81647																	
	NP	12/15/78	RC 03/21/03	39								GW				0080N,0040E	NENE	5	6 S	91 W
124501	5	23	YORK D GLENWD SPG, CO 81601																	
	NP	11/18/81	AR 12/23/81	39								GW					NENE	5	6 S	91 W
112000	A	5	23	MILNE DONALD JAMES 6503 ROAD 214 NEW CASTLE, CO 81647																
	NP	02/11/85	RC 03/21/03	39								GW	0.50	412	69	0080N,0040E	NENE	5	6 S	91 W
	5	23	CHENOWETH JIM NEW CASTLE, CO 81647																	
	AP	10/02/85	AU 01/13/87	39								GW					NENE	5	6 S	91 W
112000	A	5	23	MILNE DONALD JAMES 6503 ROAD 214 NEW CASTLE, CO 81647																
	CA	09/05/90	CA 07/31/03	39								GW	15.00	148	125	4400S,0020E	NENE	5	6 S	91 W
	5	23	RUMERY THOMASA TODD 6503 ROAD 214 NEW CASTLE, CO 81647																	
	AW	01/03/92	AW 04/02/92	39		D						GW				4400S,0020E	NENE	5	6 S	91 W
59959F	5	23	RUMERY THOMAS 6503 PEACH VALLEY RD NEW CASTLE, CO 81647																	
	NP	04/10/00	SP 09/02/03	39		D				0.00		GW	15.00	148	122	4400S,0020E	NENE	5	6 S	91 W
17374	5	23	SMITH H E NEW CASTLE, CO 81647																	
				39		D			09/04/63			GW	12.00	83	53		NENE	5	6 S	91 W
19060	5	23	MELTON EVAN LESLIE & FAHRLENDER M L P O BOX 396 CARBONDALE, CO 81623																	
	NP	03/03/64	OC 12/31/96	39		D			02/08/64			GW	10.00	80	55	3240S,0172E	NENE	5	6 S	91 W
66161	5	23	SIMONSON CHARLES RT 1 BOX 107C NEW CASTLE, CO 81647																	
				39		DS			12/21/72			GW	11.00	320	65	0806N,1100E	NENE	5	6 S	91 W
76083	5	23	DENISON MERRITT L. 6501 RD 154 NEW CASTLE, CO 81647																	
				39					02/08/75			GW	15.00	150	50	0393N,0393E	NENE	5	6 S	91 W
88687	5	23	BOWDEN WILLIAM A. 6303 COUNTY ROAD 214 NEW CASTLE, CO 81647																	
				39		D			04/27/77			GW	15.00	100		0075N,0035E	NENE	5	6 S	91 W
139805	5	23	MELTON E NEW CASTLE, CO 81647																	
	NP	05/25/84	AR 05/20/85	39								GW					SENE	5	6 S	91 W
21729	5	23	RIPPY ADAIR NEW CASTLE, CO 81647																	
				39		D			09/25/64			GW	20.00	57	30		SENE	5	6 S	91 W
27681MH	5	23	SMILACK STEPHAN % SHELTON DRILLING BASALT, CO 81621																	
	MH	03/21/96		39								GW	15.00	100	70		SWNE	5	6 S	91 W
111594	5	23	CHENOWETH JIM & SHARON 6397 214 RD NEW CASTLE, CO 81647																	
	NP	10/25/79		39		D			01/01/65			GW	15.00	150		2100N,2000E	SWNE	5	6 S	91 W
147723	5	23	GREEN JERRY L & PATRICIA K 6091 COUNTY RD 233 SILT, CO 81601																	
	NP	04/15/87	EP 05/05/89	39								GW				1900N,2150E	SWNE	5	6 S	91 W
63626	A	5	23	RUNG NORBERT 6105 CNTY RD 214 NEW CASTLE, CO 81647																
	NP	05/15/89		45		DS						GW	15.00	151	90	1440N,1637E	SWNE	5	6 S	91 W

PERMIT D CO OWNER INFORMATION

PERMIT	ACTIVITY CD	ACTIVITY DATE	STATUS CD	STATUS DATE	WD	MD	DB	USE	1ST USED DATE	ANNUAL APROP	ACRES IRR	GEOL AQFR	WELL YIELD	WELL DEPTH	WATER LEVEL	SEC LOCAT'N COORDINATES	QTRS	SC	TOWN SHIP	TOWN RANGE	P M
	5 23 SMILACK STEPHEN 2755 103 RD CARBONDALE, CO 81623																				
	AP	12/10/90	AW	09/10/92	39		DS					GW				2550N,2450E	SWNE	5	6 S	91 W	S
	5 23 SMILACK STEPHEN 2755 103 RD CARBONDALE, CO 81623																				
	AP	12/10/90	AW	09/10/92	39		DS					GW				2300N,1750E	SWNE	5	6 S	91 W	S
41673F	5 23 SMILACK STEPHEN 2755 CO RD 103 CARBONDALE, CO 81623 LOT CD SMILACK EXEMPTION																				
	NP	08/03/92	EX	09/29/93	39		D					GW		130		3380S,1400E	SWNE	5	6 S	91 W	S
	5 23 SMILACK STEPHEN 2755 103 RD CARBONDALE, CO 81623																				
	AP	12/10/90			39		DS					GW				2000N,1400E	SWNE	5	6 S	91 W	S
41674F	5 23 SMILACK STEPHEN A 2755 103 RD CARBONDALE, CO 81623 LOT AB SMILACK EXEMPTION																				
	NP	01/28/91	EX	09/29/93	39		DS					GW		200		2840S,2050E	SWNE	5	6 S	91 W	S

ERMIT D CO OWNER INFORMATION

	ACTIVITY CD	DATE	STATUS CD	DATE	WD	MD	DB	USE	1ST USED DATE	ANNUAL APROP	ACRES IRR	GEOL AQFR	WELL YIELD	WELL DEPTH	WATER LEVEL	SEC LOCAT'N COORDINATES	QTRS	SC	TOWN SHIP	RANGE
13975	5 23 NADON R L GLENWOOD SPG, CO 81601																			
	NP	04/21/80			45							GW					8	6	S	91 W
242454	5 23 SCHULTZ GARY & GAIL 2859 CR 335 NEW CASTLE, CO 81647																			
	CA	06/03/02	CA	09/19/02	45							GW	15.00	68	38	0304N,2185E NWNE	8	6	S	91 W
58334F	5 23 SCHULTZ GAIL & GARY 2859 CR 335 NEW CASTLE, CO 81647 LOT 2A RIVER OAKS																			
	NP	07/25/02	AR	09/16/02	45		D			0.00		GW	15.00	68	38	0304N,2185E NWNE	8	6	S	91 W
53599F	5 23 CHANSE RONALD K P.O. BOX 1083 GLENWOOD SPRING, CO 81602																			
	NP	04/20/00	SP	06/19/02	45		D			6000.00		GW	2.00	145	100	0500N,2000E NWNE	8	6	S	91 W
33211F	5 23 SCHULTZ GARY BOX 1150 GLENWOOD SPRING, CO 81602																			
	EP	01/13/86	EP	02/23/89	45		C					GW				0275N,2610W NENW	8	6	S	91 W
33212F	5 23 SCHULTZ GARY BOX 1150 GLENWOOD SPRING, CO 81602																			
	EP	01/13/86	EP	02/23/89	45		C					GW				0225N,2350W NENW	8	6	S	91 W
33213F	5 23 SCHULTZ G GLENWOOD SPRING, CO 81602																			
	EP	01/13/86	SU	09/25/92	45		C		11/15/88			GW				NENW	8	6	S	91 W
36879F	5 23 SCHULTZ GARY L P O BOX 1150 GLENWOOD SPGS, CO 81602																			
	NP	04/06/90	SA	09/04/92	45		DS		05/22/90	1.00		GW	15.00	34	12	0300N,2600W NENW	8	6	S	91 W
40639F	5 23 SCHULTZ CRAIG 2656 CO RD 335 NEW CASTLE, CO 81647 LOT C SCHULTZ EXEMPTION																			
	CA	01/10/92	CA	10/02/01	45		D		01/31/92			GW	14.00	66	30	4700S,3700E NENW	8	6	S	91 W
56097F	5 23 SCHULTZ CRAIG L 2656 335 ROAD NEW CASTLE, CO 81647 LOT 3(C)																			
	NP	08/20/01			45		DI		09/03/92	6000.00		GW				4700S,3700E NENW	8	6	S	91 W
20631MH	5 23 RR TRUST C/O DELANEY & BALCOMB GLENWOOD SPGS, CO 81602																			
	MH	04/30/93			45							GW				NWSE	8	6	S	91 W

APPENDIX F
EFFLUENT REQUIREMENTS

TO BE INSERTED:

PRELIMINARY EFFLUENT LIMITS
FROM WQCD

MARTIN / MARTIN
CONSULTING ENGINEERS

December 2, 2003

Mr. Gary Beers
Permits Unit – Water Quality Control Division
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South, Bldg. B
Denver, Colorado 80246, 1530

RE: The Rapids on the Colorado, Site Location Application

Dear Mr. Beers:

Martin/Martin, Inc. is currently involved in the preparation of a Site Location Application and Engineering Report for the Rapids Development Corporation. The Rapids Development Corporation is planning a new residential development west of New Castle, Colorado in Garfield County, which will require a new wastewater treatment facility.

The purpose of this letter is to request preliminary effluent limitations for the proposed facility, which will consist of a mechanical treatment plant discharging to the Colorado River. The flow for which the site application will be submitted is 0.060 MGD.

Please review the attached location map identifying the desired discharge point, and the additional basic information required for development of the preliminary effluent limitations. Please send the invoice for the application fee to the owner at the address indicated on the attached documentation. If any additional information is required, please feel free to contact me at (303) 431-6100, or the owner. Thank you for your attention to this matter.

Sincerely,

Roger Smades, P.E.

Roger H. Smades, P.E.
Principal

Encl: PEL Application Form

RHS.jjm

Cc: File

12499 West Colfax • P.O. Box 151500 • Lakewood, Colorado 80215 • Telephone: 303-431-6100 • www.martinmartin.com
Civil Department Fax: 303-431-4028 • Structural Department Fax: 303-431-6866 • Marketing Department Fax: 303-456-9923

The Technical Analysis Section analyzes the Pollutants of Concern (POC), which will be provided by the State of Colorado. In this section, the assimilative capacity of the stream for each of the POCs is determined using a mass balance calculation or the Colorado Ammonia Model (CAM) when appropriate.

The Antidegradation Review Section determines the assimilative capacity of the stream for each of the POCs based on Colorado's Antidegradation Policy.

Further, the PEL will be consistent with the States's regulations and guidance, including The Basic Standards and Methodologies for Surface Water (5 CCR 1002-31, October 30, 2001), and Colorado Discharge Permit System Regulations (June 30, 2002) and/or other applicable guidance. The PEL will conform to the State's style and formatting practices.

The basic information needed for the start of the process to develop a PEL report is identified in the following table. Other site-specific information, on the treatment plant or the pollutants of concern, or the receiving environment may be required to establish the effluent limitations and will be requested during the preparation process.

BASIC INFORMATION NEEDED FOR PEL

(New) / Modified Wastewater Treatment Plant Completed on (date) Not Constructed

Name: The Rapids on the Colorado
Street Address: 2102 W. Arapahoe Drive
City ZIP: Littleton, Colo. 80120-3008
County: Garfield
Contact Name: Gene Hilton
Contact Phone: 303-798-1640

Circle One: (New Facility)
Upgrade of existing facility - WQCD Permit No: CO_____

Discharge is to: Colorado River WBID: CO

Proposed Hydraulic Capacity: 0.060 MGD, — MGD, — MGD, — MGD

Circle One: (Mechanical Plant)
Lagoon System

Location Maps include point of discharge and attach

Latitude and Longitude of discharge point are LAT. 39°33'04"N/LONG. 107°34'11" W

Pollutants of Concern (check all that apply)

✓ BOD_5
✓ TSS
✓ pH
__ Oil and Grease
✓ FC (Fecal coliform bacteria)
__ E. coli (coliform bacteria)
✓ TRC (Total Residual Chlorine)
✓ Total Ammonia
__ Metals (list)

__Other —

If upgrade is to an existing facility, was a CAM previously done? Yes No
If yes, include the CAM (electronic and paper versions)

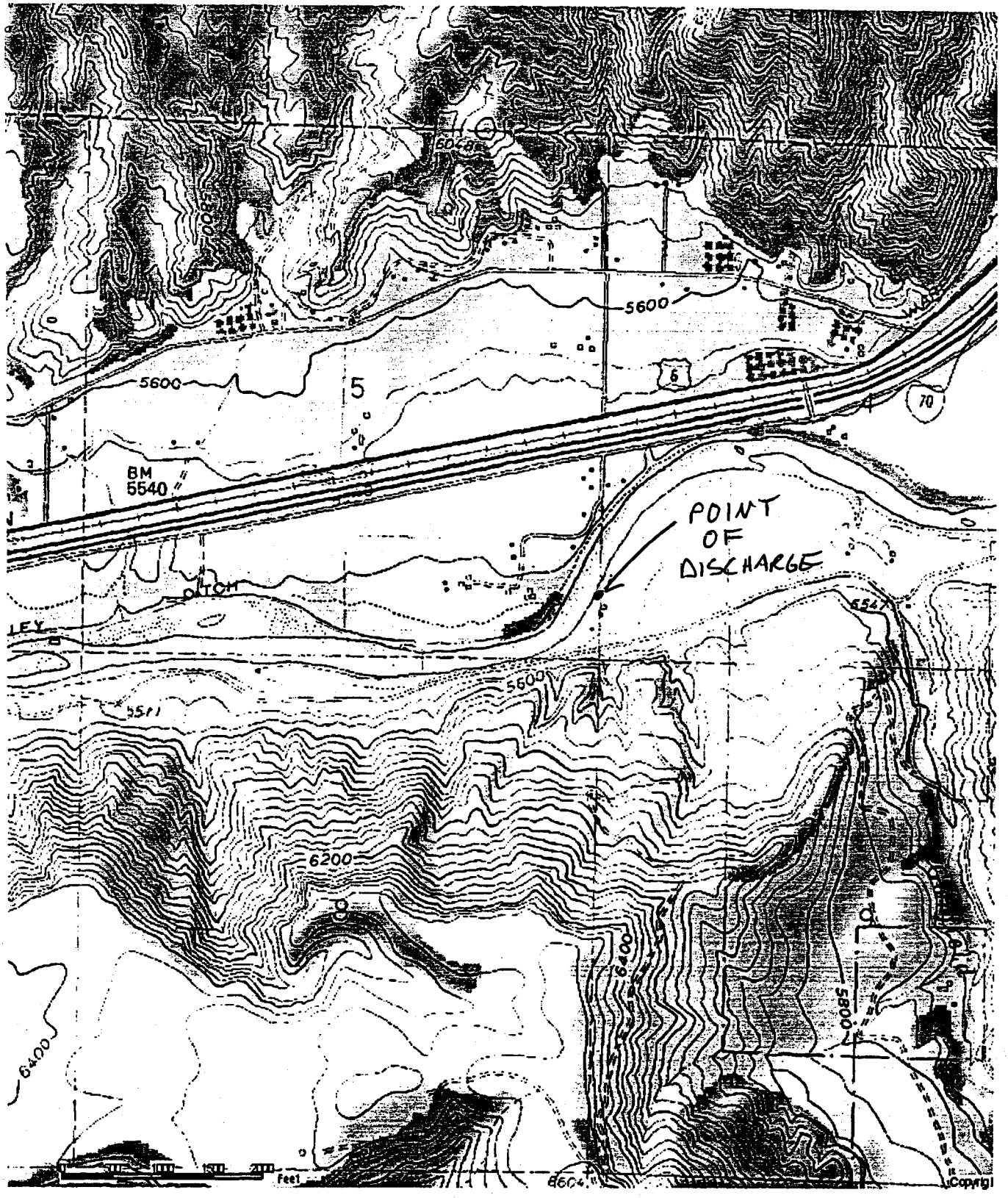
Comments:
A mechanical treatment plant of 0.060mgd is proposed to be constructed in SW1/4, S4, T6S, R91W, Garfield County and discharge to the Colorado River.

Preparation of PEL : Option 1 - WQCD and Fees

The applicant can request the WQCD to prepare the PEL. Upon receipt of a request, the WQCD will issue an invoice for the preparation of the PEL. When the payment and the required basic information (see above table) for the new or modified plant are received, the WQCD will start work . The PEL will be completed within 30 days, under normal workload conditions.

The Fee Categories for PELs, as cited below with introductory text, are from Section 25-8-502 (b.6)(1) of the Water Quality Control Act (Act).

In accordance with the provisions of Section 25-8-702 of the Act, the Division may assess a fee for determination of preliminary effluent limitations upon a domestic wastewater treatment works, as defined at 25-8-103(5), pursuant to the site location approval process and all such fees shall be in accordance with the following schedule. Fees set forth in this schedule shall be increased by an amount equal to 75% of the


5600
5600
5
BM
5540
POINT
OF
DISCHARGE
DITCH
5600
6200
6400
5800
6400
5800
Feet

THE RAPIDS ON THE COLORADO

ANITICIPATED PRELIMINARY EFFLUENT LIMITS

PARAMETER	LIMIT	CRITERIA
BOD, mg/L	30/45	30 day average / 7 day average
TSS, mg/L	75/100	30 day average / 7 day average
Fecal Coliform, #/100mg	2000/4000	30 day average / 7 day average
Total Residual Chlorine, mg/L	0.5	Daily Maximum
pH	6.5-9.0	Minimum - Maximum
Oil & Grease	N/A	Visual

APPENDIX G
CLIMATE DATA

EVAPORATION DATA

The annual free water surface evaporation rate for this region is approximately forty (40) inches per year. This information was obtained from the Evaporation Atlas for the Contiguous 48 United States, NOAA Technical Report NWS 33.

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service

NCDC / Climate-Radar Data Inventories / Locate Station / Search

Station List

10 station(s) found in Garfield County, CO, USA.

Access Digital ASCII Data For This Group of Stations.
Select individual station below to access data for that station.
NCDC May Not Have Received Any Data for Some of these Stations.

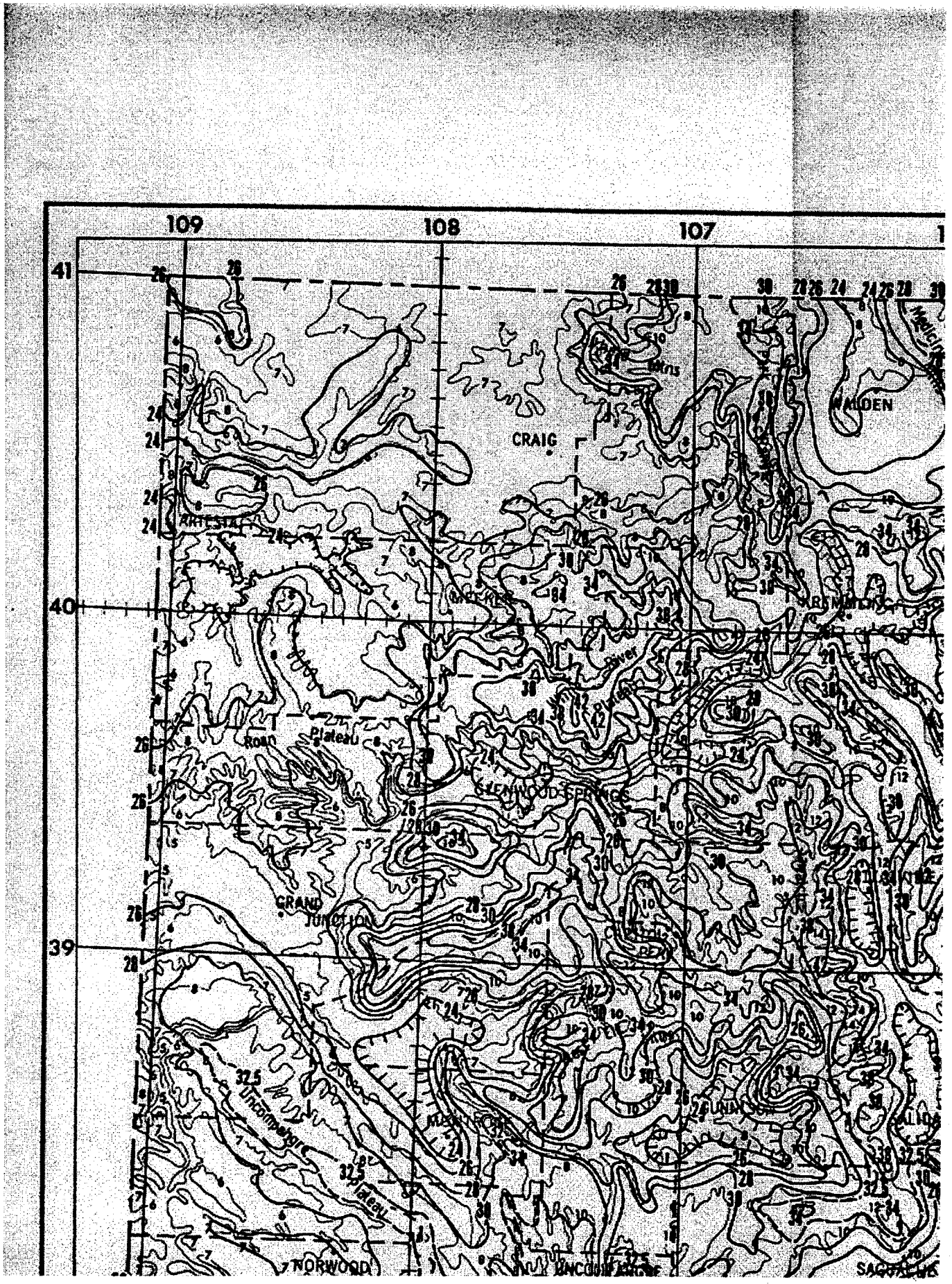
Station Name - City, State or Province, Country - County	Period of Record		COOP ID	WBAN	Call Sign /ICS	WMO ID	Type
Altenbern - CO, United States - Garfield County	01 Jan 1950	Present	050214	.	.	.	.
Glenwood Spgs #2 - CO, United States - Garfield County	01 Jun 1950	Present	053359	.	.	.	.
Glenwood Springs - Glenwood Springs, CO, United States - Garfield County	NO DATA AVAILABLE ON LINE (click for additional details)		053357	.	.	.	.
Glenwood Springs 1 NW - Glenwood Springs, CO, United States - Garfield County	NO DATA AVAILABLE ON LINE (click for additional details)		053366	.	.	.	.
Glenwood Springs 3 SSE - Glenwood Springs, CO, United States - Garfield County	01 Aug 1948	30 Jun 1950	053359	.	.	.	.
Grand Valley - CO, United States - Garfield County	01 May 1965	25 Feb 1981	053508	.	.	.	.
Parachute - Parachute, CO, United States - Garfield County	01 Feb 1981	08 Jun 1992	056311	.	.	.	.
Rifle - Rifle, CO, United States - Garfield County	18 Sep 1945	Present	057031	.	.	.	A
Rifle Garfield County Airport - Rifle, CO, United States - Garfield County	11 Sep 1969	Present	.	03016	RIL /KRIL	.	ASOS-FAA
Shoshone - CO, United States - Garfield County	01 Aug 1948	Present	057618	.	.	.	.

Precipitation Frequency Data Output

NOAA Atlas 2
Colorado 39.55°N 107.57°W
Site-specific Estimates

Map	Precipitation (inches)	Precipitation Intensity (in/hr)
2-year 6-hour	0.76	0.13
2-year 24-hour	1.03	0.04
100-year 6-hour	1.76	0.29
100-year 24-hour	2.37	0.10

Hydrometeorological Design Studies Center - NOAA/National Weather Service
1325 East-West Highway - Silver Spring, MD 20910 - (301) 713-1669
Fri Dec 5 15:39:13 2003


109
108
107
41
40
39
CRAIG
MEEKER
RIFLE
GLENWOOD SPRINGS
GRAND JUNCTION
NORWOOD
Roan Plateau
Uncompahgre Plateau
White River Plateau
32.5

GLENWOOD SPRINGS # 2, COLORADO (053359)

Period of Record Monthly Climate Summary

Period of Record : 1/ 2/1900 to 7/31/2003

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	36.9	42.6	51.3	61.6	72.1	82.4	88.5	86.1	78.4	66.4	49.8	38.1	62.9
Average Min. Temperature (F)	11.6	16.6	24.3	31.1	38.2	44.0	50.6	49.4	41.8	31.8	22.2	13.4	31.3
Average Total Precipitation (in.)	1.46	1.28	1.42	1.63	1.44	1.11	1.27	1.50	1.58	1.47	1.15	1.30	16.61
Average Total SnowFall (in.)	18.4	11.6	6.6	1.9	0.3	0.0	0.0	0.0	0.0	1.2	5.4	15.3	60.7
Average Snow Depth (in.)	5	3	0	0	0	0	0	0	0	0	0	3	1

Percent of possible observations for period of record.
Max. Temp.: 90.5% Min. Temp.: 90.3% Precipitation: 91.7% Snowfall: 87.7% Snow Depth: 41.6%
Check Station Metadata or Metadata graphics for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

GLENWOOD SPRINGS # 2, COLORADO

Period of Record General Climate Summary - Precipitation

Station:(053359) GLENWOOD SPRINGS # 2															
From Year=1900 To Year=2003															
	Precipitation											Total Snowfall			
	Mean	High	Year	Low	Year	1 Day Max.		>= 0.01 in.	>= 0.10 in.	>= 0.50 in.	>= 1.00 in.	Mean	High	Year	
	in.	in.	-	in.	-	in.	dd/yyyy or yyyymmdd	# Days	# Days	# Days	# Days	in.	in.	-	
January	1.46	6.01	52	0.00	103	1.30	19/1952	8	5	0	0	18.4	58.5	96	
February	1.28	5.17	36	0.06	17	1.30	07/1967	7	4	1	0	11.6	43.0	39	
March	1.42	4.13	12	0.04	66	1.35	11/1940	8	5	1	0	6.6	34.0	29	
April	1.63	5.75	78	0.08	92	1.78	01/1978	8	5	1	0	1.9	12.3	45	
May	1.44	5.83	95	0.00	11	1.75	09/2003	7	4	1	0	0.3	6.0	22	
June	1.11	4.92	69	0.00	6	3.20	24/1969	5	3	1	0	0.0	1.0	76	
July	1.27	4.51	37	0.00	8	1.80	28/1937	7	4	1	0	0.0	0.0	1	
August	1.50	3.93	27	0.26	75	1.45	21/1970	9	5	1	0	0.0	0.0	1	
September	1.58	5.38	61	0.00	1	1.93	04/1982	7	5	1	0	0.0	3.0	20	
October	1.47	4.21	84	0.00	52	2.00	08/1924	6	4	1	0	1.2	19.0	8	
November	1.15	2.89	86	0.00	4	1.13	10/2002	6	4	0	0	5.4	28.0	19	
December	1.30	4.45	51	0.17	76	1.47	30/1951	8	4	0	0	15.3	61.0	83	
Annual	16.61	26.48	95	8.28	66	3.20	19690624	86	53	7	1	60.7	119.5	51	
Winter	4.05	11.32	52	0.91	77	1.47	19511230	23	14	1	0	45.2	115.1	39	
Spring	4.49	10.88	78	0.78	13	1.78	19780401	23	14	2	0	8.8	37.0	29	
Summer	3.88	8.61	43	1.18	102	3.20	19690624	20	12	2	0	0.0	1.0	76	
Fall	4.19	8.60	70	0.94	1	2.00	19241008	19	13	2	0	6.6	30.0	19	

Table updated on Dec 3, 2003

For monthly and annual means, thresholds, and sums:
Months with 5 or more missing days are not considered
Years with 1 or more missing months are not considered
Seasons are climatological not calendar seasons

Winter = Dec., Jan., and Feb. Spring = Mar., Apr., and May

Summer = Jun., Jul., and Aug. Fall = Sep., Oct., and Nov.

Western Regional Climate Center, wrcc@dri.edu

APPENDIX H
STREAM CLASSIFICATIONS

STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 11 BASIN: LOWER COLORADO RIVER Stream Segment Description	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
1. ✓ Mainstem of Colorado River from the confluence with the Roaring Fork River to immediately below the confluence with Parachute Creek.		Aq Life Cold 1 Recreation 1a Water Supply Agriculture	D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac)=TVS NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
2. Mainstem of Colorado River from immediately below the confluence with Parachute Creek to immediately above the confluence of the Gunnison River.		Aq Life Warm 1 Recreation 1a Water Supply Agriculture	D.O. = 5.0 mg/l pH = 6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac)=TVS NH_3(ch)=0.06 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS Fe(ch)=WS(dis)	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
3. Mainstem of Colorado River from immediately above the confluence of the Gunnison River to the Colorado-Utah state line.		Aq Life Warm 1 Recreation 1a Agriculture	D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac)=TVS NH_3(ch)=0.06 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05	As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
4a. All tributaries, including wetlands, to the Colorado River from the confluence with the Roaring Fork River to a point immediately below the confluence with Parachute Creek except for the specific listings in Segments 4b, 5, 6, 7, 8, 9, 10, 11a - h, and 12.		Aq Life Cold 2 Recreation 2 Water Supply Agriculture	D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coli=2000/100ml E.Coli=630/100ml	NH_3(ac)=TVS NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Temporary modification: Se=existing ambient quality Expiration date of 2/28/09.
4b. South Canyon Hot Springs.		Aq Life Warm 2 Recreation 1a	D.O.=5.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac)=TVS NH_3(ch)=0.06 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002	As(ac)=50(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
5. All tributaries to the Colorado River, including wetlands, lakes and reservoirs, which are within the boundaries of White River National Forest, except for the specific listing in Segment 9.		Aq Life Cold 1 Recreation 1b Water Supply Agriculture	D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coli=325/100ml E.Coli=205/100ml	NH_3(ac)=TVS NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
6. Mainstem of Coal Creek including all tributaries from boundary of White River National Forest to the confluence with the Colorado River.	UP	Aq Life Cold 2 Recreation 1b Water Supply Agriculture	D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coli=325/100ml E.Coli=205/100ml	NH_3(ac)=TVS NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
7. Mainstem of Mitchell, Canyon, Elk, Garfield, Divide, Beaver, Cache, and Battlement Creeks, including all tributaries, wetlands, lakes and reservoirs, from the boundary of the White River National Forest to their confluences with the Colorado River.		Aq Life Cold 1 Recreation 1a Water Supply Agriculture	D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac)=TVS NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
8. Mainstem of Northwater and Trapper Creeks, including all tributaries, wetlands, lakes and reservoirs from their sources to the confluence with the East Middle Fork of Parachute Creek.		Aq Life Cold 1 Recreation 2 Water Supply Agriculture	D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coli=2000/100ml E.Coli=630/100ml	NH_3(ac)=TVS NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
9a. Mainstem of Rifle Creek, including all tributaries and wetlands, from its source to County Road 251.		Aq Life Cold 1 Recreation 2 Agriculture	D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coli=2000/100ml E.Coli=630/100ml	NH_3(ac)=TVS NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05	As(ac)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS	Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 11 BASIN: LOWER COLORADO RIVER Stream Segment Description	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
9b. All lakes and reservoirs tributary to the Colorado River from the confluence of the Colorado and the Roaring Fork River to the confluence of the Colorado River and Parachute Creek, including Rifle Gap Reservoir and Harvey Gap Reservoir, except for lakes and reservoirs in segments 5, 6, 7, 8, 10, 11 a-h and 12.		Aq Life Cold 1 Recreation 1a Water Supply Agriculture	D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coll=200/100ml E.Coll=126/100ml	NH_3(ac)=TVS NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
10. Mainstem of Rifle Creek, including all tributaries, wetlands, lakes and reservoirs, from County Road 251 to the confluence with the Colorado River.		Aq Life Cold 1 Recreation 1a Water Supply Agriculture	D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coll=200/100ml E.Coll=126/100ml	NH_3(ac)=TVS NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
~~11a. Mainstem of the West Fork of Parachute Creek, including all tributaries, from its source to West Fork Falls; mainstem of East Fork of Parachute Creek from a point immediately below the mouth of First Anvil Creek to the east boundary line of S27, T5S, R95W.~~		~~Aq Life Cold 1~~ Recreation 2 Water Supply Agriculture	~~D.O. = 6.0 mg/l~~ D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coll=2000/100ml E.Coll=630/100ml	~~NH_3(ac)=TVS~~ NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	~~S=0.002~~ B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	~~As(ac)=50(Trec)~~ Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	~~Fe(ch)=WS(dis)~~ Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	~~Ni(ac/ch)=TVS~~ Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
~~11b. Mainstem of the West Fork of Parachute Creek from West Fork Falls to the confluence with Parachute Creek; mainstem of the Middle Fork of Parachute Creek from the north boundary line of S19, T5S, R95W to the confluence with East Middle Fork of Parachute Creek.~~	UP	~~Aq Life Cold 2~~ Recreation 2 Agriculture	~~D.O. = 6.0 mg/l~~ D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coll=2000/100ml E.Coll=630/100ml	~~CN(ac)=0.2~~ NO_2(ac)=10 NO_3(ac)=100	~~B(ch)=0.75~~	~~As(ch)=100(Trec)~~ Be(ch)=100(Trec) Cd(ch)=10(Trec) CrIII(ch)=100(Trec)	~~CrVI(ch)=100(Trec)~~ Cu(ch)=200(Trec) Pb(ch)=100(Trec) Mn(ch)=200(Trec)	~~Ni(ch)=200(Trec)~~ Se(ch)=20(Trec) Zn(ch)=2000(Trec)	
~~11c. Mainstem of the Middle Fork of Parachute Creek including all tributaries (includes Davis Gulch and tributaries), from the source to the north boundary line of S19, T5S, R95W.~~	UP	~~Aq Life Cold 2~~ Recreation 2 Agriculture	~~D.O. = 6.0 mg/l~~ D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coll=2000/100ml E.Coll=630/100ml	~~CN(ac)=0.2~~ NO_2(ac)=10 NO_3(ac)=100	~~B(ch)=0.75~~	~~As(ch)=100(Trec)~~ Be(ch)=100(Trec) Cd(ch)=10(Trec) CrIII(ch)=100(Trec)	~~CrVI(ch)=100(Trec)~~ Cu(ch)=200(Trec) Pb(ch)=100(Trec) Mn(ch)=200(Trec)	~~Ni(ch)=200(Trec)~~ Se(ch)=20(Trec) Zn(ch)=2000(Trec)	
~~11d. Mainstem of East Middle Fork of Parachute~~ Creek, including all tributaries, from its source to the confluence with Middle Fork of Parachute Creek; mainstem of Middle Fork of Parachute Creek from the confluence with East Middle Fork to a point immediately above the confluence with the West Fork of Parachute Creek.		~~Aq Life Cold 1~~ Recreation 2 Agriculture	~~D.O. = 6.0 mg/l~~ D.O.(sp)=7.0 mg/l pH = 6.5-9.0 F.Coll=2000/100ml E.Coll=630/100ml	~~NH_3(ac)=TVS~~ NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	~~S=0.002~~ B=0.75 NO_2=0.05	~~As(ac/ch)=50~~ Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac/ch)=50 CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	~~Fe(ch)=1000(Trec)~~ Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS	~~Ag(ac)=TVS~~ Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
~~11e. That portion of the mainstem of the East Fork of~~ Parachute Creek within Sections 27, 28, and 29, T5S, R95W.	UP	~~Aq Life Cold 2~~ Recreation 2 Water Supply Agriculture	~~D.O. = 6.0 mg/l~~ D.O. (sp)=7.0 mg/l pH = 6.5-9.0 F.Coll=2000/100ml E.Coll=630/100ml	~~CN(ac)=0.2~~ NO_2(ac)=10 NO_3(ac)=100	~~B(ch)=0.75~~	~~As(ch)=100(Trec)~~ Be(ch)=100(Trec) Cd(ch)=10(Trec) CrIII(ch)=100(Trec)	~~CrVI(ch)=100(Trec)~~ Cu(ch)=200(Trec) Pb(ch)=100(Trec) Mn(ch)=200(Trec)	~~Ni(ch)=200(Trec)~~ Se(ch)=20(Trec) Zn(ch)=2000(Trec)	
~~11f. Mainstem of the East Fork of Parachute Creek~~ from the west boundary line of S29, T5S, R95W to the confluence with Middle Fork of Parachute Creek.		~~Aq Life Cold 1~~ Recreation 2 Water Supply Agriculture	~~D.O. = 6.0 mg/l~~ D.O.(sp)=7.0 mg/l pH = 6.5-9.0 F.Coll=2000/100ml E.Coll=630/100ml	~~NH_3(ac)=TVS~~ NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	~~S=0.002~~ B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	~~As(ac)=50(Trec)~~ Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	~~Fe(ch)=WS(dis)~~ Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	~~Ni(ac/ch)=TVS~~ Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 11 BASIN: LOWER COLORADO RIVER Stream Segment Description	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
11g. All tributaries to East Fork Parachute Creek on the south side of the East Fork Parachute Creek from a point immediately below First Anvil Creek to the confluence with Parachute Creek; all tributaries to Parachute Creek on the east side of Parachute Creek from a point immediately below the East Fork of Parachute Creek to the confluence with the Colorado River; and all tributaries to the Colorado River on the north side of the Colorado River from a point immediately below Cottonwood Creek to the confluence with Parachute Creek.		Aq Life Cold 2 Recreation 2 Agriculture	D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coli=2000/100ml E.Coli=630/100ml	CN(ac)=0.2 NO_2(ac)=10 NO_3(ac)=100	B(ch)=0.75	As(ch)=100(Trec) Be(ch)=100(Trec) Cd(ch)=10(Trec) CrIII(ch)=100(Trec)	CrVI(ch)=100(Trec) Cu(ch)=200(Trec) Pb(ch)=100(Trec) Mn(ch)=200(Trec)	Ni(ch)=200(Trec) Se(ch)=20(Trec) Zn(ch)=2000(Trec)	
11h. Mainstem of Parachute Creek from the confluence of the West and East Forks to the confluence with the Colorado River.		Aq Life Cold 2 Recreation 1b Agriculture	D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coli=325/100ml E.Coli=205/100ml	NH_3(ac)=TVS NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_3=0.05	As(ch)=100(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS	Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
12. All tributaries to East Fork Parachute Creek from its source to a point immediately below the mouth of First Anvil Creek.		Aq Life Cold 1 Recreation 2 Agriculture	D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 F.Coli=2000/100ml E.Coli=630/100ml	NH_3(ac)=TVS NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_3=0.05 NO_3=10 Cl=250	As(ac/ch)=TVS Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS	Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
~~13a. All tributaries to the Colorado River including wetlands, from a point immediately below the confluence of Parachute Creek to the Colorado/Utah border except for the specific listings in Segments 13b through 19.~~	UP	~~Aq Life Warm 2~~ Recreation 1b Agriculture	~~D.O. = 5.0 mg/l~~ pH = 6.5-9.0 F.Coli=325/100ml E.Coli=205/100ml	~~CN(ac)=0.2~~ NO_2(ac)=10 NO_3(ac)=100	~~B(ch)=0.75~~	~~As(ch)=100(Trec)~~ Be(ch)=100(Trec) Cd(ch)=10(Trec) CrIII(ch)=100(Trec)	~~CrVI(ch)=100(Trec)~~ Cu(ch)=200(Trec) Pb(ch)=100(Trec) Mn(ch)=200(Trec)	~~Ni(ch)=200(Trec)~~ Se(ch)=20(Trec) Zn(ch)=2000(Trec)	
~~13b. All tributaries to the Colorado River, including wetlands, from the Government Highline Canal Diversion to a point immediately below Salt Creek, downgradient from the Government Highline Canal, the Orchard Mesa Canal No. 2, Orchard Mesa Drain, Stub Ditch and the northeast Colorado National Monument boundary, except for specific listings in Segment 13c.~~	UP	~~Aq Life Warm 2~~ Recreation 1a Agriculture	~~D.O. = 5.0 mg/l~~ pH = 6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	~~NH_3(ac)=TVS~~ NH_3(ch)=0.06 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	~~S=0.002~~ B=0.75 NO_3=0.05	~~As(ch)=100(Trec)~~ Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	~~Fe(ch)=1000(Trec)~~ Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS	~~Ag(ac/ch)=TVS~~ Zn(ac/ch)=TVS	~~Temporary~~ modifications: Se(ch)=existing ambient quality based on uncertainty. Persigo Wash from Grand Junction discharge to confluence with the Colorado River; and Little Salt Wash from Fruita discharge to confluence with the Colorado River for D.O., F. Coli., NH_3, Cd, Cu, Ag, Ni, B, Hg, NO_3 = existing quality. Expiration date of 2/28/09.
~~13c. Walker Wildlife Area Ponds.~~		~~Aq Life Warm 1~~ Recreation 1a Agriculture	~~D.O. = 5.0 mg/l~~ pH = 6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	~~NH_3(ac)=TVS~~ NH_3(ch)=0.06 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	~~S=0.002~~ B=0.75 NO_3=0.05	~~As(ch)=100(Trec)~~ Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	~~Fe(ch)=1000(Trec)~~ Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS	~~Ag(ac/ch)=TVS~~ Zn(ac/ch)=TVS	~~Temporary~~ modifications: Se(ch)=existing ambient quality, based on uncertainty. Expiration date of 2/28/09.

STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 11 BASIN: LOWER COLORADO RIVER Stream Segment Description	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
14a. Mainstem of Roan Creek including all wetlands, tributaries, lakes, and reservoirs, from its source to a point immediately above the confluence with Clear Creek.		Aq Life Cold 1 Recreation 1b Water Supply Agriculture	D.O.=6.0 mg/l D.O.(sp)= 7.0 mg/l pH=6.5-9.0 F.Coli=325/100ml E.Coli=205/100ml	NH_3(ac)=TVS NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_3=0.05 NO_2=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
14b. Mainstem of Roan Creek including all tributaries, wetlands, lakes and reservoirs, from a point immediately below the confluence with Clear Creek to the confluence with the Colorado River.		Aq Life Warm 1 Recreation 1b Water Supply Agriculture	D.O.=5.0 mg/l pH=6.5-9.0 F.Coli=325/100ml E.Coli=205/100ml	NH_3(ac)=TVS NH_3(ch)=0.06 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_3=0.05 NO_2=10 Cl=250 SO_4=WS	As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
15. Mainstem of Plateau Creek including all tributaries, wetlands, lakes, and reservoirs, from its source to the confluence with the Colorado River.		Aq Life Cold 1 Recreation 1a Water Supply Agriculture	D.O.=6.0 mg/l D.O.(sp)= 7.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac)=TVS NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_3=0.05 NO_2=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
16. Deleted.									
17. Mainstem of Rapid Creek, including all tributaries, wetlands, lakes and reservoirs, from its source to the confluence with the Colorado River.		Aq Life Cold 1 Recreation 1b Water Supply Agriculture	D.O. = 5.0 mg/l pH = 6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac)=TVS NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_3=0.05 NO_2=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS Fe(ch)=WS(dis)	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot) Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
18. Mainstem of Little Dolores River, including all tributaries, wetlands, lakes and reservoirs, from its source to immediately below the confluence with Hay Press Creek.		Aq Life Cold 1 Recreation 1b Water Supply Agriculture	D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 F.Coli=325/100ml E.Coli=205/100ml	NH_3(ac)=TVS NH_3(ch)=0.02 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_3=0.05 NO_2=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
19. All lakes and reservoirs tributary to the Colorado River from a point immediately below the confluence of the Colorado River and Parachute Creek to the Colorado-Utah border.		Aq Life Warm 1 Recreation 1a Agriculture	D.O.=5.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac)=TVS NH_3(ch)=0.06 Cl_2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_3=0.05	As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS	Ag(ac/ch)=TVS Zn(ac/ch)=TVS	

APPENDIX I
FLOOD PLAIN DATA

Exhibit 23

ENARTECH Inc. Consulting Engineers and Hydrologists

December 30, 1998

Mr. Gene R. Hilton
2102 West Arapahoe Drive
Littleton, CO 80120

RE: The Rapids

Dear Gene:

This letter is to provide certification for the placement of fill material in accordance with the Garfield County Floodplain Special Use Permit for the Rapids on the Colorado Subdivision (Resolution 97-26, copy enclosed). I, Peter Belau, a Colorado registered Professional Engineer, hereby certify the following:

1. The "as-built" elevation of the fill placed on Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 16, 17, and 18 of the Rapids on the Colorado Subdivision is above the elevation of the 100-year flood, effectively removing the building envelopes on these lots from the 100-year floodplain of the Colorado River.

2. The fill material was placed in accordance with the engineering specifications for this type of floodplain development, including the compaction of the fill material.

Please note that the Special Use Permit has a number of additional requirements, including that the lowest floor, including basement, of any residence must be at least 1 foot above the 100-year flood elevation.

Sincerely,

ENARTECH, INC.

Peter Belau, P.E.

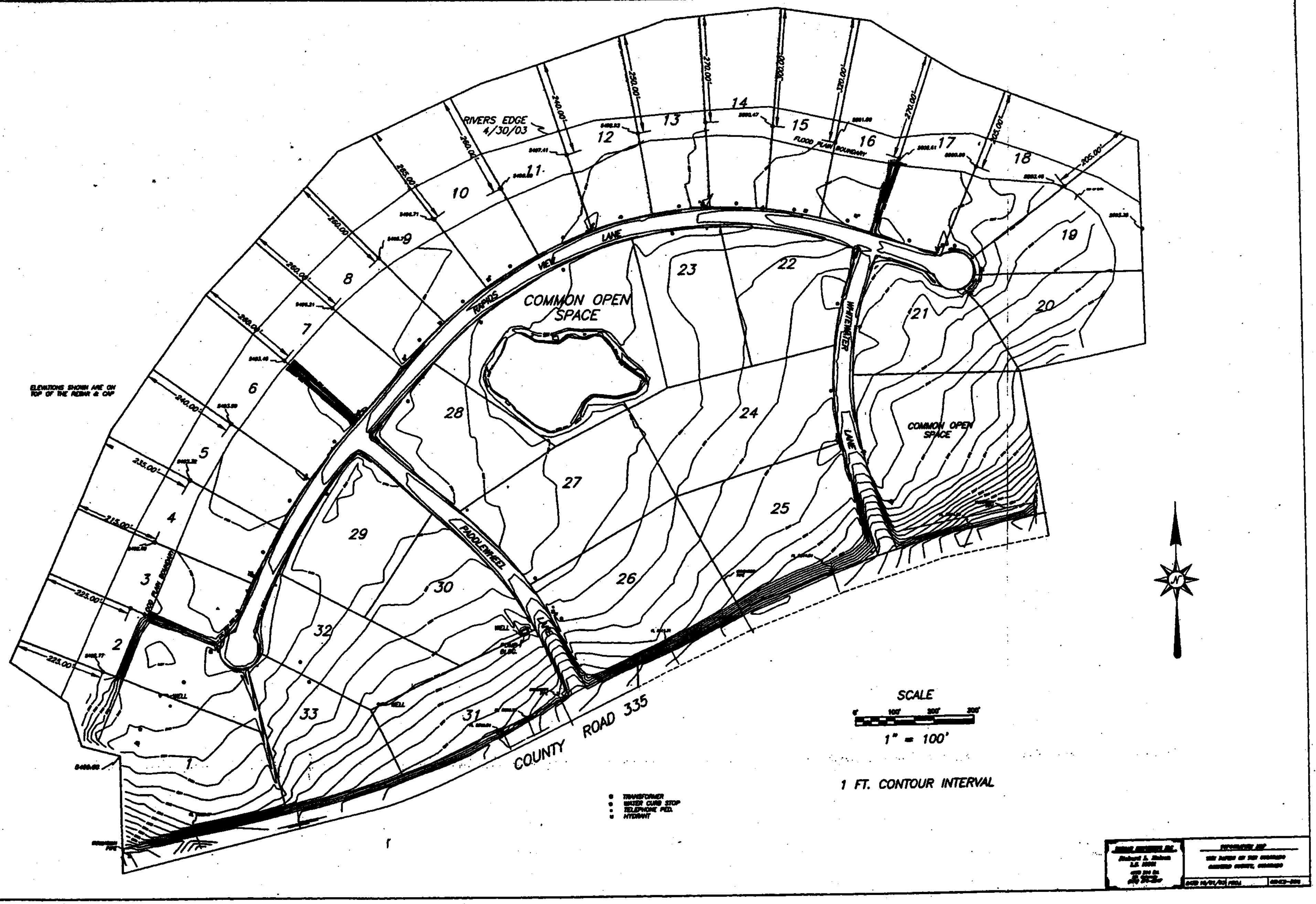
PB/jlw

Enclosure

cc: Mark Bean

E-mail: belau@rof.net
P423-01 DOCS\PJB98\423_Ltr G Hilton 123098A

302 Eighth Street, Suite 325 P.O. Drawer 160 Glenwood Springs, Colorado 81602 (970) 945-2236 Fax (970) 945-2977


RIVERS EDGE
4/30/03
COMMON OPEN SPACE
COMMON OPEN SPACE
RAPIDS VIEW LANE
WHITEWATER LANE
PADDLEWHEEL LANE
COUNTY ROAD 335
FLOOD PLAIN BOUNDARY
WELL
ELEVATIONS SHOWN ARE ON TOP OF THE REBAR & CAP
TRANSFORMER
WATER CURB STOP
TELEPHONE PED.
HYDRANT
SCALE
1" = 100'
1 FT. CONTOUR INTERVAL

APPENDIX J
COST ESTIMATES

ENGINEER'S OPINION OF PROBABLE COST

MARTIN / MARTIN
CONSULTING ENGINEERS

Project: The Rapids on the Colorado
Location: Garfield County, Colorado
Subject: PRELIMINARY - WWTF Costs
Client: Rapids Development Corporation

Date: 2-Dec-03
Job No.: 16454.C.01
Prep. By: JJM
Ckd. By: RHS

Note: Any opinions of price, probable project costs or construction costs rendered by MARTIN/MARTIN represent its best judgment and are furnished for general guidance. MARTIN/MARTIN makes no warranty or guarantee, either expressed or implied as to the accuracy of such opinions as compared to bid or actual cost.

Alternative 1: Sequencing Batch Reactor (SBR)

Item No.	Item Description	Units	Quantity	Unit Price	Item Cost
1	Headworks	LS	1	$ 40,000.00	$ 40,000.00
2	SBR's	LS	1	$ 138,000.00	$ 138,000.00
3	SBR Basins	CY	180	$ 600.00	$ 108,000.00
4	Equalization Basin	LS	1	$ 28,000.00	$ 28,000.00
5	UV Disinfection	LS	1	$ 25,000.00	$ 25,000.00
6	Sludge Holding	CY	60	$ 600.00	$ 36,000.00
7	Standby Generator	LS	1	$ 35,000.00	$ 35,000.00
8	Outfall Structure	CY	15	$ 600.00	$ 9,000.00
9	Blowers & Building	LS	1	$ 24,400.00	$ 24,400.00
	SUBTOTAL				$ 443,400.00
		%			
	Site Work	4			$ 17,736.00
	Yard Piping	5			$ 22,170.00
	Electrical / Instrumentation	11			$ 48,774.00
	Mobilization and Bonds	LS	1	$ 15,000.00	$ 15,000.00
	Outfall Line	LF	150	$ 30.00	$ 4,500.00
	Headworks Pumping Unit *				
	Possibly necessary @ Lump Sum $60,000				

PRELIMINARY

Remarks: * May be required

Cost of Items:	$ 551,580.00
12% Contingencies:	$ 66,190.00
Subtotal:	$ 617,770.00
Total Cost:	**$ 617,770.00**

MARTIN / MARTIN
CONSULTING ENGINEERS

ENGINEER'S OPINION OF PROBABLE COST

Project: The Rapids on the Colorado
Location: Garfield County, Colorado
Subject: PRELIMINARY - WWTF Costs
Client: Rapids Development Corporation

Date: 9-Dec-03
Job No.: 16454.C.01
Prep. By: JJM
Ckd. By: RHS

Note: Any opinions of price, probable project costs or construction costs rendered by MARTIN/MARTIN represent its best judgment and are furnished for general guidance. MARTIN/MARTIN makes no warranty or guarantee, either expressed or implied as to the accuracy of such opinions as compared to bid or actual cost.

Alternative 2: Activated Sludge Package Plant

Item No.	Item Description	Units	Quantity	Unit Price	Item Cost
1	Treatment Facility	LS	1	$ 585,000.00	$ 585,000.00
2	Geotechnical Investigation	LS	1	$ 8,000.00	$ 8,000.00
3	Electrical / Instrumentation	LS	1	$ 28,000.00	$ 28,000.00
4	Yard Piping	LS	1	$ 19,000.00	$ 19,000.00
5	Site Work	LS	1	$ 29,000.00	$ 29,000.00
6	Yard Manholes	EA	3	$ 3,400.00	$ 10,200.00
7	Fencing	LF	500	$ 31.00	$ 15,500.00
8	Control Building & Storage	SF	600	$ 90.00	$ 54,000.00
9	Effluent Line	LF	200	$ 35.00	$ 7,000.00
10	Mobilization and Bonds	LS	1	$ 15,000.00	$ 15,000.00
11	Start-up Testing	LS	1	$ 12,000.00	$ 12,000.00

PRELIMINARY

Remarks:

Cost of Items:	$ 782,700.00
12% Contingencies:	$ 93,924.00
Subtotal:	$ 876,624.00
Total Cost:	$ 876,624.00

APPENDIX K
APPLICATION FORMS

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
Water Quality Control Division
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

APPLICATION FOR SITE APPROVAL FOR CONSTRUCTION OF: A NEW DOMESTIC WASTEWATER TREATMENT PLANT

APPLICANT: Rapids Development Corporation (RDC) **PHONE:** (303) 798-1640

ADDRESS: 2102 West Arapahoe Drive

CITY, STATE, ZIP: Littleton, Colorado, 80120-3008

Consulting Engineer: Martin / Martin Inc. **Phone:** (303) 431-6100

Address: 12499 West Colfax Avenue, PO Box 151500

City, State, Zip: Lakewood, Colorado, 80215

A. Summary of information regarding new wastewater treatment plant:

1. Proposed Location (Legal Description): SW 1/4, – 1/4, Section 4

   Township 6S Range: 91 W County: Garfield

2. Type and capacity of treatment facility proposed: Major Processes Used Sequencing Batch Reactor (SBR), Disinfection

   Hydraulic: 60,000 gal/day Organic: 116 lbs. BOD_5/day

   Present PE: 0 Design PE: 450-500 % Domestic: 100 % Industrial 0

3. Location of Facility:
   Attach a map of the area, which includes the following:
   (a) 5-mile radius: all sewage treatment plants, lift stations, and domestic water supply intakes.
   (b) 1-mile radius: habitable buildings, location of public and private potable water wells, and an approximate indication of the topography.
   ** - Maps are included in Appendix D of this report.

4. Effluent disposal: Surface discharge to watercourse (name) Colorado River

   Subsurface disposal: – Land Application: – Evaporation: –

   Other (list): _____

   State water quality classification of receiving watercourse(s): Aq Life Cold 1, Recreation 1a, Water Supply, Agriculture

   Proposed Effluent Limitations developed in conjunction with the Water Quality Control Division:

   BOD_5 _____ mg/l SS _____ mg/l Fecal Coliform _____ /100 ml

   Total Residual Chlorine _____ mg/l Ammonia _____ mg/l Other _____

5. Will a State or Federal grant/loan be sought to finance any portion of this project? No

6. Present zoning of site area? Agricultural/Residential/Rural Density (ARRD)

   Zoning within a 1-mile radius of site? AI, ARRD, CG, OS (See Zoning Map in Appendix N)

7. What is the distance downstream from the discharge to the nearest domestic water supply intake? 7 Miles

   Name of Supply: Town of Silt

   Address of Supply: P.O. Box 70, Silt, CO 81652

APPLICATION FOR SITE APPROVAL FOR CONSTRUCTION OF: A NEW DOMESTIC WASTEWATER TREATMENT PLANT

What is the distance downstream from the discharge to the nearest other point of diversion? 13 Miles

Name of User: City of Rifle

Address of User: 202 Railroad Ave. PO Box 1908, Rifle, CO. 81650

8. What entity has the responsibility for operating the proposed facility? The Rapids on the Colorado Homeowners Association will hire a Certified operator to operate the WWTF when it is constructed.

9. Who owns the land upon which the facility will be constructed? Rapids Development Corporation

(Please attach copies of the document creating authority in the applicant to construct the proposed facility at this site)

10. Estimated project cost: $617,700

Who is financially responsible for the construction and operation of the facility? Rapids Development Corporation

11. Names and addresses of all municipalities and water and/or sanitation districts within 5 miles downstream of the proposed wastewater treatment facility site. NONE

(Attach a separate sheet of paper if necessary)

12. Is the facility in a 100-year flood plain or other natural hazard area? No

If so, what precautions are being taken?

Has the flood plain been designated by the Colorado Water Conservation Board, Department of Natural Resources or other agency? Colorado Water Conservation Board
(Agency Name)

If so, what is that designation?

13. Please identify any additional factors that might help the Water Quality Control Division make an informed decision on your application for site approval. The Rapids on the Colorado is a platted subdivision with provisions for ISDS systems on each lot. The owner is in the process of acquiring an additional 64 acres that adjoins the subdivision and is submitting a request to the county to rezone the existing subdivision to Planned Unit Development (PUD). Treatment of residential wastewater utilizing the SBR treatment plant with ultraviolet disinfection would provide a superior alternate to ISDS systems.

(Attach a separate sheet of paper if necessary)

APPLICATION FOR SITE APPROVAL FOR CONSTRUCTION OF: A NEW DOMESTIC WASTEWATER TREATMENT PLANT

B. **If the facility will be located on or adjacent to a site that is owned or managed by a federal or state agency, send the agency a copy of this application for the agency's review and recommendation.**

C. **Recommendation of governmental authorities:**

Please address the following issues in your recommendation decision. Are the proposed facilities consistent with the comprehensive plan and any other plans, policies, and/or regulations for the area, including the 201 Facility Plan or 208 Water Quality Management Plan, as they affect water quality? If you have any further comments or questions, please call (303) 692-3500.

	Date	Recommend Approval	Recommend Disapproval	Comment	Signature of Representative
1.					N/A Management Agency
2.			Town of New Castle (within 3 miles)		City or Town (If site is inside boundary)
3.					County
4.					N/A Local Health Authority
5.					N/A Water Quality Management Planning Agency

I certify that I am familiar with the requirements of the "Regulations for the Site Application Process", and have posted the site in accordance with the regulations. An engineering report, as described by the regulations, has been prepared and is enclosed.

Date 12/19/2003 Gene R. Hilton
Signature of Applicant

Gene R. Hilton, Pres. RDC
Typed Name

APPLICATION FOR SITE APPROVAL FOR CONSTRUCTION OF:
A NEW DOMESTIC WASTEWATER TREATMENT PLANT

ATTACHMENT TO SITE APPLICATION

In accordance with C.R.S. 1981, 25-8-702 (2)(a), (b), and (c), and the "Regulations for the Site Application Process", the Water Quality Control Division must determine that each site location is consistent with the long range, comprehensive planning for the area in which it is to be located, that the plant on the proposed site will be managed to minimize the potential adverse impacts on water quality, and must encourage the consolidation of wastewater treatment works whenever feasible.

In making this determination, the Division requires each applicant for a site approval for a domestic wastewater treatment works to supply an engineering report describing the project and showing the applicant's capabilities to manage and operate the facility over the life of the project to determine the potential adverse impacts on water quality. The report shall be considered the culmination of the planning process and as a minimum shall address the following:

Service area definition including existing and projected population, site location, staging or phasing, flow/loading projections, and relationship to other water and wastewater treatment plants in the area.

Proposed site location, evaluation of alternative sites, and evaluation of treatment alternatives.

Proposed effluent limitations as developed in coordination with the Division.

Analysis of existing facilities within the service area(s).

Analysis of opportunities for consolidation of treatment works in accordance with the provisions of 22.3(1)(c), including those recommended in the water quality management plan, unless the approved water quality management plan recommends no consolidation.

Evidence that the proposed site and facility operations will not be adversely effected by floodplain or other natural hazards. Where such hazards are identified at the selected site, the report shall describe means of mitigating the hazard.

Evidence shall be presented in the form of a report, containing soils testing results and design recommendations and prepared by a Professional Geologist and a Geotechnical Engineer, or by a professional meeting the qualifications of both Professional Geologist and Geotechnical Engineer, with an appropriate level of experience investigating geologic hazards, stating that the site will support the proposed facility.

Detailed description of selected alternatives including legal description of the site, treatment system description, design capacities, and operational staffing needs.

Legal arrangements showing control of site for the project life or showing the ability of the entity to acquire the site and use it for the project life. Approval by the Division of an application for site approval shall not be deemed to be a determination that the proposed treatment works is or is not necessary, that the proposed site is or is not the best or only site upon which to locate such a treatment works, or that location of a treatment works on the site is or is not a reasonable public use justifying condemnation of the site. Approval by the Division shall only be deemed to be a determination that the site application meets the requirement of this regulation 22 (5 CCR 1002-22).

Institutional arrangements such as contract and/ or covenant terms which will be finalized to pay for acceptable waste treatment.

Management capabilities for controlling the wastewater loadings within the capacity limitations of the proposed treatment works, i.e., user contracts, operating agreements, pretreatment requirements and or the management capabilities to expand the facilities as needed (subject to the appropriate, future review and approval procedures).

Financial system, which has been developed to provide for necessary capital and continued operation, maintenance, and replacement through the life of the project. This would include, for example, anticipated fee structure.

Implementation plan and schedule including estimated construction time and estimated start-up date.

APPENDIX L
GEOTECHNICAL REPORT

Exhibit 20

HP Geotech
HEPWORTH - PAWLAK GEOTECHNICAL

Hepworth-Pawlak Geotechnica
5020 County Road 154
Glenwood Springs, Colorado 81601
Phone: 970-945-7988

Fax: 970-945-8454
email: hpgeo@hpgeotech.com

March 31, 2003

Rapids Development Corporation
Attn: Gene Hilton
2102 West Arapaho Drive
Littleton, Colorado 80120-3008

Job No. 103 198

Subject: Subsoil Study for Foundation Design, Proposed Waste Water Treatment Site, Lot 1, The Rapids on the Colorado, County Road 335, Garfield County, Colorado.

Dear Mr. Hilton:

As requested, Hepworth-Pawlak Geotechnical, Inc. performed a subsoil study for design of foundations at the subject site. The study was conducted in accordance with our agreement for geotechnical engineering services to Rapids Development Corporation dated March 5, 2003. The data obtained and our recommendations based on the proposed construction and subsurface conditions encountered are presented in this report. Hepworth - Pawlak Geotechnical, Inc. previously conducted percolation testing for the subdivision development and presented our findings in reports dated May 12, 1995 and August 8, 1996, Job No. 195 217.

Proposed Construction: The proposed treatment plant will be a pre-manufactured concrete structure approximately 80 feet by 80 feet in size located in the area of the pits shown on Figure 1. Cut depths are expected to be up to about 15 feet. Foundation loadings for this type of construction are assumed to be relatively light and typical of the proposed type of construction.

If building conditions or foundation loadings are significantly different from those described above, we should be notified to re-evaluate the recommendations presented in this report.

Site Conditions: The site was mostly vacant at the time of our field exploration. An existing abandoned building was located to the south-southwest of the exploratory pits. Minor overlot grading consisting of shallows cuts and fills for subdivision development was observed across the lot. The Colorado River is located about 110 feet to the north-northwest and is approximately 10 feet lower in elevation than the proposed building site. The ground surface is relatively flat with gentle slope down to the northwest.

There is about 2 feet of elevation difference across the proposed building area. Vegetation consists of sparse grass and weeds with cottonwood trees.

Subsurface Conditions: The subsurface conditions at the site were evaluated by excavating two exploratory pits at the approximate locations shown on Figure 1. The logs of the pits are presented on Figure 2. The subsoils encountered, below about 1½ feet of topsoil (possible old fill in Pit 1) consist of loose, stratified silt and sand of depths of 5½ to 6½ feet where relatively dense slightly silty sandy gravel and cobbles with boulders to the bottom pits depths of 7 and 6½ feet. Results of swell-consolidation testing performed on a relatively undisturbed sample of sandy silt presented on Figure 3, indicate low compressibility under existing moisture conditions and light loading and a low collapse potential (settlement under constant load) when wetted. The sample showed high compressibility upon increased loading after wetting. No free water was observed in the pits at the time of excavation and the soils were slightly moist to moist.

The log of a well (Rapids Well No. 4) drilled to the east of the proposed building area as part of the subdivision development was provided by Mr. Hilton. The subsurface conditions observed in the pits are similar to those encountered at the well which was drilled to a final depth of 80 feet. Bedrock of the Wasatch Formation was encountered at a depth of 18 feet. The free water level was measured at a depth of 12 feet when drilled in April 1996.

Foundation Recommendations: Considering the subsoil conditions encountered in the exploratory pits and the nature of the proposed construction, we recommend spread footings or a mat foundation placed on the undisturbed natural gravel soil or bedrock designed for an allowable soil bearing pressure of 4,000 psf for support of the proposed treatment plant. We expect settlements to be 1 inch or less and essentially occur during construction. Footings should have a minimum width of 18 inches for continuous walls and 2 feet for isolated pads. The topsoil, existing fill and loose and disturbed soils encountered at the foundation bearing level within the excavation should be removed and the footing bearing level extended down to the undisturbed gravel soils or bedrock. Voids created by the removal of large rocks should be backfilled with compacted sand and gravel or with concrete. Exterior footings, footings beneath unheated areas and edges of mats should be provided with adequate cover above their bearing elevations for frost protection. Placement of foundations at least 36 inches below the exterior grade is

typically used in this area. Continuous foundation walls should be reinforced top and bottom to span local anomalies such as by assuming an unsupported length of at least 10 feet. Foundation walls acting as retaining structures should be designed to resist a lateral earth pressure based on an equivalent fluid unit weight of at least 50 pcf for granular backfill such as the on-site sandy gravel. The unit weight given above assumes a dry backfill condition. The submerged portion of the foundation should consider hydrostatic pressure in addition to the lateral earth loading.

Surface Drainage: The following drainage precautions should be observed during construction and maintained at all times after the treatment plant has been completed:

1) Inundation of the foundation excavations and underslab areas should be avoided during construction.
2) Exterior backfill should be adjusted to near optimum moisture and compacted to at least 95% of the maximum standard Proctor density in pavement and slab areas and to at least 90% of the maximum standard Proctor density in landscape areas. Free-draining wall backfill should be capped with about 2 feet of the on-site, finer graded soils to reduce surface water infiltration.
3) The ground surface surrounding the exterior of the building should be sloped to drain away from the foundation in all directions. We recommend a minimum slope of 6 inches in the first 10 feet in unpaved areas and a minimum slope of 3 inches in the first 10 feet in pavement and walkway areas.
4) Roof downspouts and drains should discharge well beyond the limits of all backfill.

Limitations: This study has been conducted in accordance with generally accepted geotechnical engineering principles and practices in this area at this time. We make no warranty either express or implied. The conclusions and recommendations submitted in this report are based upon the data obtained from the exploratory pits excavated at the locations indicated on Figure 1 and to the depths shown on Figure 2, the proposed type of construction, and our experience in the area. Our findings include interpolation and extrapolation of the subsurface conditions identified at the exploratory pits and variations in the subsurface conditions may not become evident until excavation is performed. If conditions encountered during construction appear different from those

described in this report, we should be notified at once so re-evaluation of the recommendations may be made.

This report has been prepared for the exclusive use by our client for design purposes. We are not responsible for technical interpretations by others of our information. As the project evolves, we should provide continued consultation and field services during construction to review and monitor the implementation of our recommendations, and to verify that the recommendations have been appropriately interpreted. Significant design changes may require additional analysis or modifications to the recommendations presented herein. We recommend on-site observation of excavations and foundation bearing strata and testing of structural fill by a representative of the geotechnical engineer.

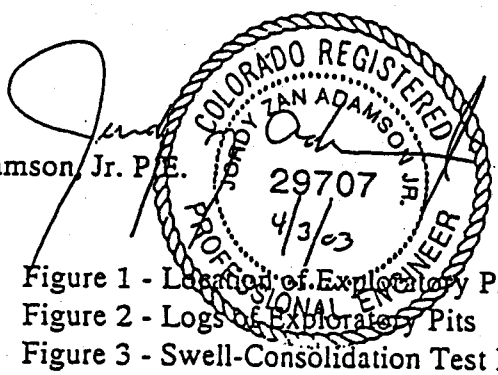
If you have any questions or if we may be of further assistance, please let us know.

Respectfully Submitted,

HEPWORTH - PAWLAK GEOTECHNICAL, INC.

Trevor L. Knell

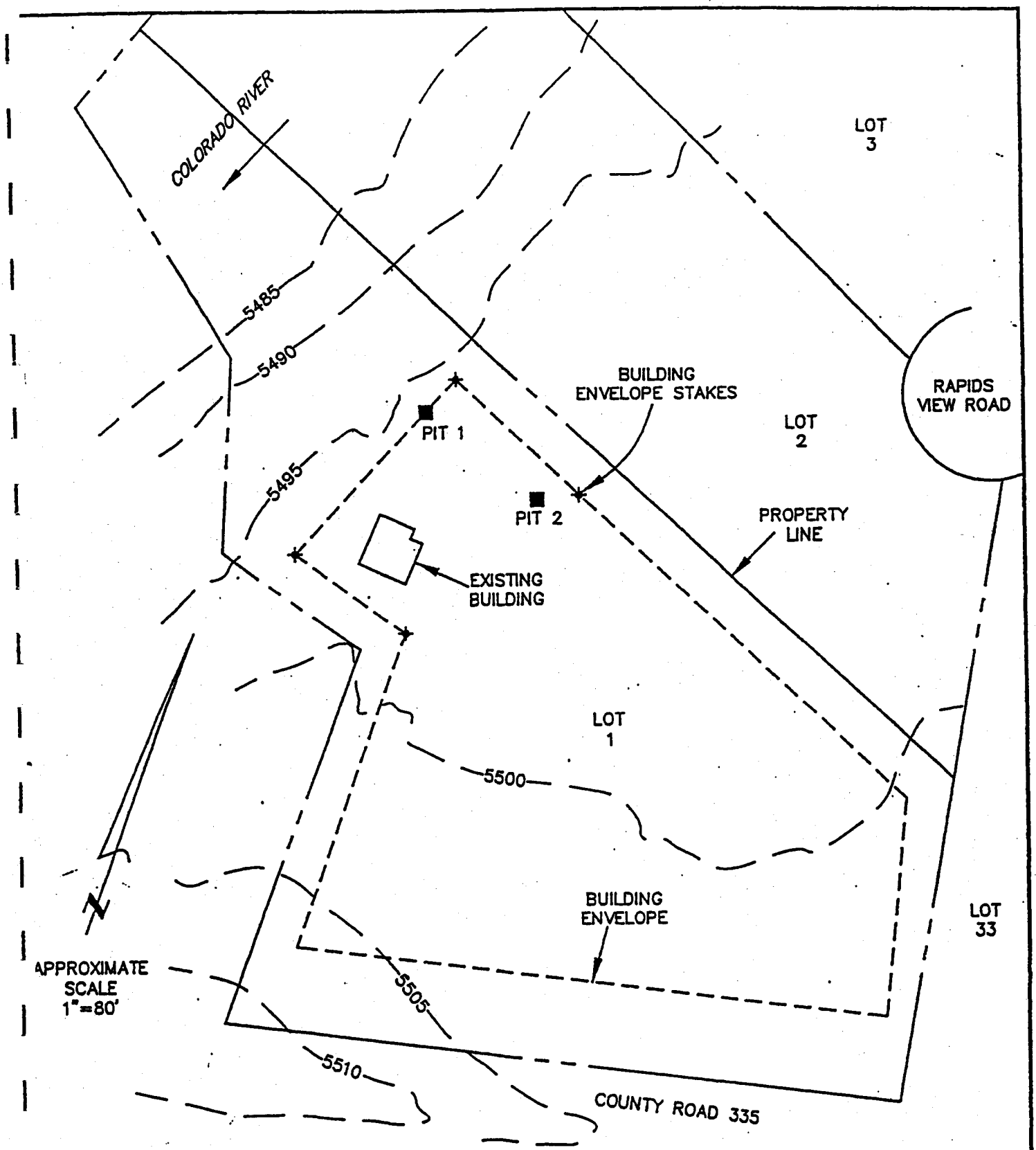
Reviewed by:



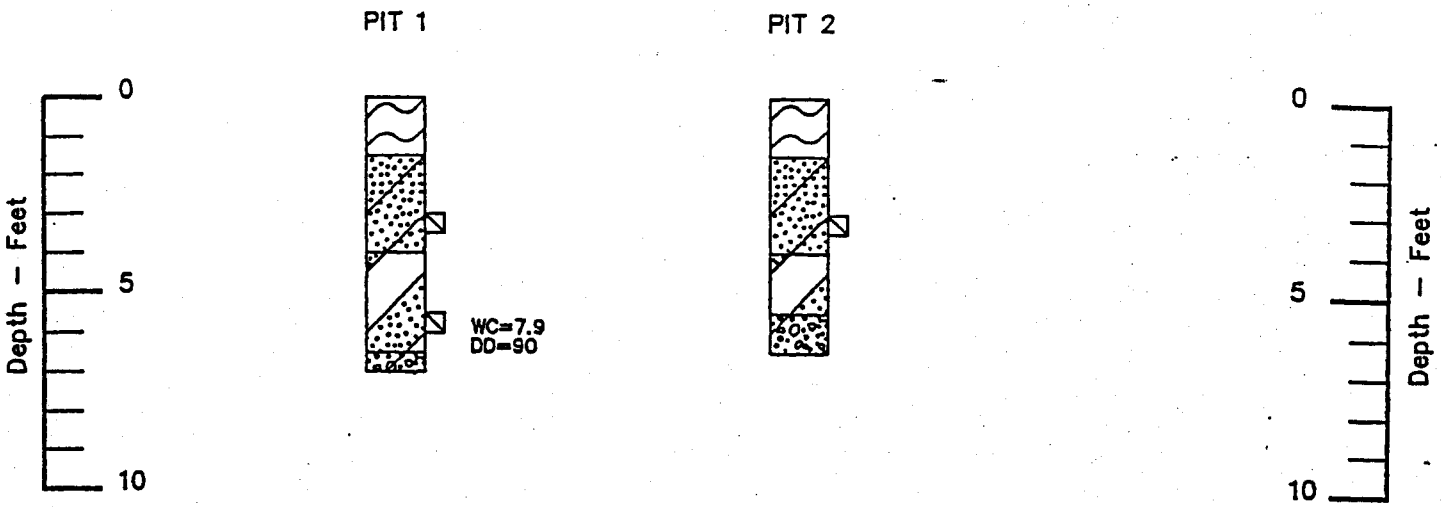
Jordy Z. Adamson, Jr. P.E.

TLK/ksw
attachments Figure 1 - Location of Exploratory Pits
Figure 2 - Logs of Exploratory Pits
Figure 3 - Swell-Consolidation Test Results

cc: Schmueser Gordon Meyer - Attn: Bob Pennington



103 198	HEPWORTH–PAWLAK GEOTECHNICAL, INC.	LOCATION OF EXPLORATORY PITS	Figure 1



LEGEND:

TOPSOIL; silt and sand, scattered cobbles in Pit 1, organics, moist, dark brown. Possible old fill in Pit 1.

SAND (SM); slightly silty to silty, loose, slightly moist, light brown.

SILT AND SAND (ML–SM); slightly clayey, loose, slightly moist, light brown.

GRAVELS, COBBLES AND BOULDERS (GP–GM); sandy, slightly silty, dense, slightly moist, light brown, subrounded to rounded river rock.

2" Diameter hand driven liner sample.

NOTES:

1. Exploratory pits were excavated on March 24, 2003 with a backhoe.

2. Locations of exploratory pits were measured approximately by pacing from features shown on the site plan provided.

3. Elevations of exploratory pits were not measured and logs of exploratory pits are drawn to depth.

4. The exploratory pit locations should be considered accurate only to the degree implied by the method used.

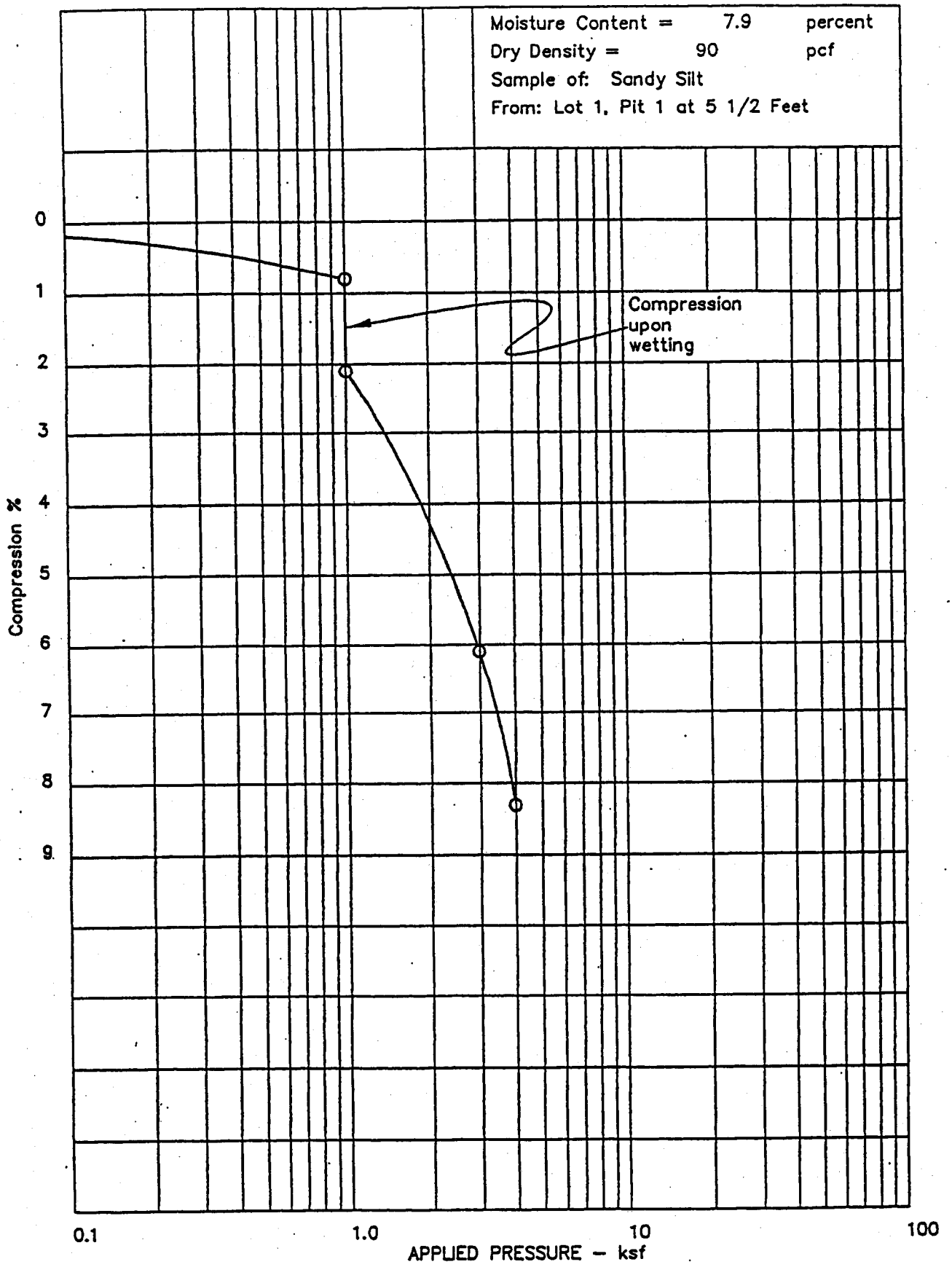
5. The lines between materials shown on the exploratory pit logs represent the approximate boundaries between material types and transitions may be gradual.

6. No free water was encountered in the pits at the time of excavating. Fluctuations in water level may occur with time.

7. Laboratory Testing Results:

WC = Water Content (%)
DD = Dry Density (pcf)

103 198	HEPWORTH–PAWLAK GEOTECHNICAL, INC.	LOGS OF EXPLORATORY PITS	Figure 2



103 198	HEPWORTH–PAWLAK GEOTECHNICAL, INC.	SWELL–CONSOLIDATION TEST RESULTS	Figure 3

APPENDIX M
FINANCIAL and MANAGERIAL CERTIFICATION

Financial and Managerial Certification

As evidenced by the signature below, Rapids Development Corporation, hereby acknowledges and confirms that the corporation is financially and managerially qualified to construct and operate the proposed wastewater treatment facility to be located in the SW1/4 of Section 4, Township 6 South, Range 91 West of the 6th P.M., near New Castle, Colorado.

Financial:
Funds to finance construction will come from cash on hand, tap fees and loans from shareholders.

Management:
Rapids Development Corporation will be responsible for subcontracting the engineering and construction of the facility. Upon completion of construction and certification that the facility is operating properly, Rapids Development Corporation and The Rapids on the Colorado Homeowners Association will initiate the formation of a special district to operate the existing Rapids water systems and the wastewater treatment facility.

Operation:
When construction is completed, a certified operator will be contracted to operate and maintain the wastewater treatment facilities. The operator will report directly to the president of Rapids Development Corporation until the special district is formed and in operation.

Rapids Development Corporation

Gene R. Hilton, President

Rapids on the Colorado Homeowners Assn.

Gene R. Hilton, President

STATE OF COLORADO

DEPARTMENT OF STATE
CERTIFICATE

I, DONETTA DAVIDSON, Secretary of State of the State of Colorado, hereby certify that, according to the records of this office,

RAPIDS DEVELOPMENT CORPORATION
(Colorado CORPORATION)
File # 19971118230

was filed in this office on July 25, 1997 and has complied with the applicable provisions of the laws of the State of Colorado and on this date is in good standing and authorized and competent to transact business or to conduct its affairs within this state.

Dated: December 5, 2003

For Validation:

Certificate ID: **737560**

To validate this certificate, visit the following web site, enter this certificate ID, then follow the instructions displayed.

www.sos.state.co.us/ValidateCertificate

Donetta Davidson

SECRETARY OF STATE

STATE OF COLORADO

DEPARTMENT OF STATE CERTIFICATE

I, DONETTA DAVIDSON, Secretary of State of the State of Colorado, hereby certify that, according to the records of this office,

RAPIDS ON THE COLORADO HOMEOWNERS ASSOCIATION (THE)
(Colorado NONPROFIT CORPORATION)
File # 19971095478

was filed in this office on June 16, 1997 and has complied with the applicable provisions of the laws of the State of Colorado and on this date is in good standing and authorized and competent to transact business or to conduct its affairs within this state.

Dated: December 5, 2003

For Validation:

Certificate ID: 737557

To validate this certificate, visit the following web site, enter this certificate ID, then follow the instructions displayed.

www.sos.state.co.us/ValidateCertificate

Donetta Davidson

SECRETARY OF STATE

APPENDIX N
ZONING INFORMATION (LOCAL COMP. PLAN)

GARFIELD COUNTY

ZONING RESOLUTION

OF 1978

BOARD OF COUNTY COMMISSIONERS
GARFIELD COUNTY, COLORADO
P.O. BOX 640
GLENWOOD SPRINGS, CO 81602

Adopted & Enacted
January 2, 1979

Effective
January 2, 1979

THIS COPY INCLUDES ALL AMENDMENTS THROUGH:
MARCH, 2003

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Kennel, riding stable and veterinary clinic, guiding and outfitting;

Single-family dwelling and customary accessory uses only where it is accessory to the uses listed above. (A. 80-180; 86-09)

Accessory dwelling unit approved as a part of a public hearing or meeting on a subdivision or subdivision exemption or quest house special use approved after 7/95 and meeting the standards in Section 5.03.02

3.01.02 Uses, conditional: Aircraft landing strip, airport-utility, salvage yard and sanitary landfill; group home for the elderly. (A. 97-60)

Home occupation, storage. (A. 80-180;86-09)

3.01.03 Uses, special: Camper park, agriculture-related business, resort; Airport-air carrier, communication facility, corrections facility.(A. 97-60), shooting range facility(A.98-108)

Plant for fabrication of goods from processed natural resources; material handling, pumping facilities, electrical distribution, warehouse facilities/staging areas, fabrication areas, storage areas, water impoundments, access routes, utility lines, utility substations, pipelines; extraction, processing; public gatherings; commercial park; recreational support facilities; guest houses; Commercial/Recreational Facility/Park (A. 80-180; 81-145; 81-263; 86-09;
99-09; 99-025) Mass Transit Facility (added 2002-12)

Accessory dwelling unit meeting the standards in Section 5.03.02 for any lot not created after a public hearing or meeting after 7/95.

3.01.04 Minimum Lot Area: Two (2) acres. (A. 80-180); except as otherwise approved in a Cluster Option. (2003-17)

3.01.05 Maximum Residential Lot Coverage: Fifteen percent (15%). (A. 80-180)

3.01.06 Minimum Setback: (Unless otherwise permitted by special use permit.)

(1) Front yard: (a) arterial streets: seventy-five (75) feet from centerline or fifty(50) feet from lot line, whichever is greater; (b) local streets: fifty (50) feet from street centerline or twenty-five (25) feet from front lot line, whichever is greater;

(2) Rear yard: Twenty-five (25) feet from rear lot line;

(3) Side yard: Ten (10) feet from side lot line, or one-half (1/2) the building height, whichever is greater. (A. 80-180)

3.01.07 Maximum Height of Buildings: Forty (40) feet. (Unless otherwise permitted by special use permit.) (A. 80-180)

3.01.08 Additional Requirements: All uses shall be subject to the provisions of Section 5(Supplementary Regulations). (A. 80-180)

3.02 A/R/RD -- AGRICULTURAL/RESIDENTIAL/RURAL DENSITY

3.02.01 Uses, by right: Agricultural including farms, garden, greenhouse, nursery, orchard, ranch, small animal farm for production of poultry, fish, fur-bearing or other small animals and customary accessory uses including buildings for shelter or enclosure of persons, animals or property employed in any of the above uses, retail establishment for sale of goods processed from raw materials produced on the lot;

Guiding and outfitting, and park;

Single-family dwelling and customary accessory uses. (A. 86-09)

Accessory dwelling unit approved as a part of a public hearing or meeting on a subdivision or subdivision exemption or guesthouse special use approved after 7/95 and meeting the standards in Section 5.03.02.

3.02.02 Uses, conditional: Aircraft landing strip, church, community buildings, day nursery and school; group home for the elderly. (A. 97-60)

Boarding or rooming houses, studio for conduct of arts and crafts, home occupation, water impoundments. (A. 86-09;87-108)

3.02.03 Uses, special: Airport utility, feedlot as principal use of the lot, crematorium, agriculture-related business, resorts, kennel, riding stable, and veterinary clinic, shooting range facility(A.98-108);

Two-family dwelling, camper park, ski lift and trails; broadcasting studio, communication facility, corrections facility, storage, storage of heavy equipment, golf course driving range, golf practice range and accessory facilities, commercial recreation facility/park;(A. 97-60; 97-112) Mass Transit Facility (added 2002-12)

Public gatherings; storage of oil and gas drilling equipment; Site for extraction, processing, storage or material handling of natural resources; utility lines, utility substations; recreational support facilities and guest house. (A. 79-132; 80-64; 80-180; 80-313, 81-145; 81-263; 84-78; 86-9; 86-84; 86-106; 87-73; 99-025)

Accessory dwelling unit meeting the standards in Section 5.03.02 for any lot not created after a public hearing or meeting after 7/95.

Kennel

3.02.04 Minimum Lot Area: Two (2) acres; except as otherwise approved in a Cluster Option (2003-17)

3.02.05 Maximum Lot Coverage: Fifteen percent (15%).

3.02.06 Minimum Setback:

(1) Front yard: (a) arterial streets: seventy-five (75) feet from street centerline or fifty (50) feet from front lot line, whichever is greater; (b) local streets: fifty (50) feet from street centerline or twenty-five (25) feet from front lot line, whichever is greater;

(2) Rear yard: Twenty-five (25) feet from rear lot line;

(3) Side yard: Ten (10) feet from side lot line, or one-half (1/2) the height of the principal building, whichever is greater.

3.02.07 Maximum Height of Buildings: Twenty-five (25) feet.

3.02.08 Additional Requirements: All uses shall be subject to the provisions under Section 5 (Supplementary Regulations).

3.03 R/L/SD -- RESIDENTIAL/LIMITED/SUBURBAN DENSITY

3.03.01 Uses, by right: Single-family dwelling and customary accessory uses, including buildings for shelter or enclosure of animals or property accessory to use of the lot for single-family residential purposes and fences, hedges, gardens, walls and similar landscape features; park.

3.03.02 Uses, conditional: Church, community building, day nursery and school, home occupation, group home for the elderly. (A. 97-60)

3.03.03 Uses, special: Two-family dwelling, row house, studio for conduct of arts and crafts, water impoundments, utility lines, utility substations, guest house, communication facility, corrections facility. (A. 81-145; 81-263; 86-09; 97-60; 99-025)

Accessory dwelling unit meeting the standards in Section 5.03.021 for any lot not created after a public hearing or meeting after 7/95.

Mass Transit Facility (added 2002-12)

3.03.04 Minimum Lot Area: Twenty thousand (20,000) square feet and as further provided under Supplementary Regulations.

3.03.05 Maximum Lot Coverage: Twenty-five percent (25%).

3.03.06 Minimum Setback:

(1) Front yard: (a) arterial streets: seventy-five (75) feet from street centerline or fifty (50) feet from front lot line, whichever is greater; (b) local streets: fifty (50) feet from street centerline or twenty-five (25) feet from front lot line, whichever is greater;

(2) Rear yard: Twenty-five (25) feet from rear lot line;

(3) Side yard: Ten (10) feet from side lot line or one-half (1/2) the height of the principal building, whichever is greater.

3.03.07 Maximum height of Buildings: Twenty-five (25) feet.

3.03.08 Maximum Floor Area Ratio: 0.100/1.0 and as further provided under Supplementary Regulations.

3.03.09 Additional Requirements: All uses shall be subject to the provisions under Section 5 (Supplementary Regulations).

3.04 R/L/UD -- RESIDENTIAL/LIMITED/URBAN DENSITY

3.04.01 Uses, by right: Single-family dwelling and customary accessory uses; including buildings for shelter or enclosure of animals or property accessory to use of the lot for single-family residential purposes and fences, hedges, gardens, walls and similar landscape features; park.

3.04.02 Uses, conditional: Church, community building, day nursery and school; row house; home occupation; group home for the elderly (A97-60)

3.04.03 Uses, special: Two-family dwelling, studio for conduct of arts and crafts, water impoundments, utility lines, utility substations, communication facility, corrections facility. (A. 81-145; 86-09; 97-60; 99-025)
Mass Transit Facility (added 2002-12)

3.04.04 Minimum Lot Area: Seven thousand five hundred (7,500) square feet and as further provided under Supplementary Regulations.

3.04.05 Maximum Lot Coverage: Thirty-five percent (35%).

3.04.06 Minimum Setback:

(1) Front yard: (a) arterial streets: seventy-five (75) feet from street centerline or fifty (50) feet from front lot line, whichever is greater; (b) local streets: fifty (50) feet from street centerline or twenty-five (25) feet from front lot line, whichever is greater;

(2) Rear yard: Twenty-five (25) feet from rear lot line;

(3) Side yard: Ten (10) feet from side lot line or one-half (1/2) the height of the principal building, whichever is greater.

3.04.07 Maximum Height of Buildings: Twenty-five (25) feet.

3.04.08 Maximum Floor Area Ratio: 0.25/1.0 and as further provided under Supplementary Regulations.

3.04.09 Additional Requirements: All uses shall be subject to the provisions under Section 5 (Supplementary Regulations).

3.05 R/G/SD -- RESIDENTIAL/GENERAL/SUBURBAN DENSITY

3.05.01 Uses, by right: Single-family, two-family and multiple-family dwellings, boarding and rooming house, and customary accessory uses including buildings for shelter or enclosure of animals or property accessory to use of the lot for residential purposes and fences, hedges, gardens, walls, and similar landscape features; park; wholesale nursery provided all non-plant materials and equipment is enclosed in a building or obscured from sight. (A. 85-173)

3.05.02 Uses, conditional: Row house; studio for conduct of arts and crafts; home occupation; church, community building, day nursery and school, group home for the elderly. (A. 97-60)

3.05.03 Uses, special: Mobile home park, water impoundments, utility lines, utility substations, communication facility, and correction facility. (A. 81-145; 86-09; 97-60; 99-025) Mass Transit Facility (added 2002-12)

3.05.04 Minimum Lot Area: Twenty thousand (20,000) square feet and as further provided under Supplementary Regulations.

3.05.05 Maximum Lot Coverage: Thirty-five percent (35%).

3.05.06 Minimum Setback:

(1) Front yard: (a) arterial streets: seventy-five (75) feet from street centerline or fifty (50) feet from front lot line, whichever is greater; (b) local streets: fifty (50) feet from street centerline or twenty-five (25) feet from front lot line, whichever is greater;

(2) Rear yard: Twenty-five (25) feet from rear lot line;

(3) Side yard: Ten (10) feet from side lot line or one-half (1/2) the height of the principal building, whichever is greater.

3.05.07 Maximum Height of Buildings: Twenty-five (25) feet.

3.05.08 Maximum Floor Area Ratio: 0.25/1.0 and as further provided under Supplementary Regulations.

3.05.09 Additional Requirements: All uses shall be subject to the provisions under Section 5 (Supplementary Regulations).

3.06 R/G/UD -- RESIDENTIAL/GENERAL/URBAN DENSITY

3.06.01 Uses, by right: Single-family, two-family and multiple-family dwelling, boarding and rooming house, and customary accessory uses including building for shelter or enclosure of animals or property accessory to use of the lot for residential purposes and fences, hedges, gardens, walls and similar landscape features; park.

3.06.02 Uses, conditional: Row house; studio for conduct of arts and crafts; home occupation; church, community building, day nursery and school, group home for the elderly. (A. 97-60)

3.06.03 Uses, special: Mobile home park; restaurant or retail establishment accessory to principal use of the lot for multiple-family residential purposes; communication facility, correction facility. (A. 97-60)
Mass Transit Facility (added 2002-12)

Water impoundments, utility lines utility substations. (A. 81-145; 86-09; 99-025)

3.06.04 Minimum Lot Area: Seven thousand five hundred (7,500) square feet and as further provided under Supplementary Regulations.

3.06.05 Maximum Lot Coverage: Fifty percent (50%).

3.06.06 Minimum Setback:

(1) Front yard: (a) arterial streets: seventy-five (75) feet from street centerline or fifty (50) feet from front lot line, whichever is greater; (b) local streets: fifty (50) feet from street centerline or twenty-five (25) feet from lot line;

(2) Rear yard: Twenty-five (25) feet from rear lot line;

(3) Side yard: Ten (10) feet from side lot line or one-half (1/2) the height of the principal building, whichever is greater.

3.06.07 Maximum Height of Buildings: Twenty-five (25) feet.

3.06.08 Maximum Floor Area Ratio: 0.50/1.0 and as further provided under Supplementary Regulations.

3.06.09 Additional Requirements: All uses shall be subject to the provisions under Section 5 (Supplementary Regulations).

3.07 C/L -- COMMERCIAL/LIMITED

3.07.01 Uses, by right: Single-family, two-family and multiple-family dwelling, and customary accessory uses including building for shelter or enclosure of animals or property accessory to use of the lot for residential purposes and fences, hedges, gardens, walls and similar landscape features; park; boarding and rooming house; hotel, motel, lodge;

Church, community building, day nursery and school; auditorium, public building for administration, fraternal lodge, art gallery, museum, library;

Hospital, clinic, nursing or convalescents home; group home for the elderly. (A. 97-60)

Office for conduct of business or profession, studio for conduct of arts and crafts, provided all activity is conducted within a building;

Commercial establishments, as listed below, provided the following requirements are observed;

(1) All fabrication, service and repair operations are conducted within a building;

(2) All storage of materials shall be within a building or obscured by a fence;

(3) All loading and unloading of vehicles is conducted on private property;

(4) No dust, noise, glares or vibration is projected beyond the lot;

Wholesale and retail establishment including sale of food, beverages, dry goods, furniture, appliances, automotive and vehicular equipment, hardware, clothing, mobile homes,

Section 4.00

Planned Unit Developments

4.00 PLANNED UNIT DEVELOPMENTS

4.01 DEFINITION

As used in this Planned Unit Development Section (hereafter "section") the following definitions shall apply, unless the context otherwise requires:

4.01.01 Common Open Space: A parcel or parcels of land, or a combination of land and water within the site designated for a Planned Unit Development, designed and intended primarily for the use or enjoyment of residents, occupants and owners of the Planned Unit Development. Categories of open space are defined as follows:

(1) Useable open space: Any land retained in an open manner having average slope of 25%or less across the entire parcel, or is an existing or proposed agricultural area;

(2) Recreational open space: Any open space land to be developed into an area or areas for organized or unorganized recreational activities, examples would include, but are not limited to: soccer/football playing fields, parks, baseball/softball diamonds, or similar uses;

(3) Commercial open space: Any open space land that would be developed into an area or areas of land, for which a fee would be charged for use. Examples would include, but not limited to: golf courses, water ski lakes, horse riding facilities, or similar uses;

(4) Limited use open space: Any land to be retained as open space that has an average slope greater than 25%. (A. 97-109)

4.01.02 Plan: The provisions for development of a Planned Unit Development which may include, and need not be limited to easements, covenants and restrictions relating to use, location and bulk of buildings and other structures, intensity of use or density of development, utilities, private and public streets, ways, roads, pedestrian areas and parking facilities, Open Space and other public facilities. "Provisions of the plan" means the written and graphic materials referred to in this definition. (A. 97-109)

4.01.03 Planned Unit Development: (hereinafter a PUD): Shall mean a single parcel of land or contiguous parcels of land of a size sufficient to accommodate an integrally planned environment, controlled by a single landowner, or by a group of landowners, to be developed as a unified plan for the number of dwelling units, commercial, educational, recreational or industrial uses, or any combination of the foregoing. The Plan for which does not correspond in lot size, bulk or type of use, density, lot coverage, open space or other restriction to the existing land use regulations and zone district. (A. 97-109)

Any reference to a PUD shall be assumed to include reference to a TPUD as well, where applicable, whether or not "TPUD" is written.

Transit Area Planned Unit Development: (hereinafter a TPUD) Shall mean a single parcel of land or contiguous parcels of land meeting the above definition of a "Planned Unit Development" and which also is located within 2000 feet of a planned or developed mass transit terminal or station which has been approved pursuant to § 5.11 of these regulations. If any portion of a property or parcel contained within a PUD is within 2000 feet of a planned or developed mass transit station or terminal the entire property, parcel or PUD shall be deemed to be included within a TPUD.

A "planned" mass transit terminal or station, is herein defined as a facility identified in a bonafide and endorsed conceptual planning process by an agency or authority with legal standing to undertake alternatives analysis and conceptual design, and where that facility has progressed to the preferred or selected alternative for preliminary design, and where it

can be reasonably assumed that such facility will be built within 20 years. The 2000 foot radius, where the facility is not yet in place or designed, shall be deemed to be from the center point of a probable location. Where there may be several probable locations in a given area, the Applicant may show such alternatives and accommodate those in the conceptual design and Sketch Plan of a TPUD in consultation with the board and to assist in review by a Mass Transit Agency. (added 2002-12)

4.01.04 Commencement of Development: Approval of a Final Plat and commencement of construction as secured by a Subdivision Improvements Agreement. (A. 97-109)

4.01.05 Contiguous: When applied to parcels of land, shall mean the lands have a common border and adjoin each other on at least one common property boundary, for a minimum of thirty (30) feet. For the purposes of this definition, a public right-of-way or easement shall be considered a common property boundary for properties separated only by right-of-way or easement. (A. 97-109) Contiguity, for purposes of creating a TPUD cannot be gained by a common boundary with a fixed guide way alone. A planned or developed mass transit terminal or station must be within 2000 feet. (added 2002-12)

4.01.06 Density: The overall average residential density shall be calculated by summing the number of residential dwelling units planned within the boundary of the PUD and dividing by the total gross area, expressed in acres, within the boundary of the PUD. (A. 97-109)

4.01.07 Fractional Ownership Interest: Any type of shared ownership or leaseback of a structure intended primarily for residential occupancy that results in occupancy shares being allotted for a designated period of time. (A. 97-109)

4.01.08 Ownership: Demonstration of ownership shall be constituted by current written proof of who or what entity holds title to all of the land(s) depicted on any plat or plan filed with the County, with the minimum proof of ownership consisting of a title report issued by a title company authorized to conduct business in the State of Colorado. The title report shall be issued not more than fifteen (15) days prior to the date of submittal of the PUD application. If the land is owned by a corporation or similar legal entity, that designates an individual or entity to act in the Corporation's or similar legal entity behalf, a proof of agency shall be required and consist of a Corporate Resolution, or similar legal document, designating the individual or entity to act as agent. The application must be signed by an officer of the Corporation or legal entity and certified by the Secretary of the Corporation, or officer of a similar legal entity. (A. 97-109)

4.02 PURPOSES AND OBJECTIVES OF DEVELOPMENT

The purpose of a PUD is to permit greater design flexibility and, consequently, more creative and imaginative design for development than generally possible under conventional zoning and subdivision regulations. It is intended that PUDs shall be planned to insure general conformity, both in substance and location, with the goals and objectives of the master/comprehensive plan through integrated development. (A. 97-109) The purpose of a TPUD is more fully set out in §5.11. (added 2002-12)

4.03 SCOPE

Applications for Planned Unit Development zoning may be made for land located in any zoning district.

4.04 CONSISTENCY WITH THE MASTER/COMPREHENSIVE PLAN

No PUD or TPUD shall be approved unless it is found by the County Commissioners to be in general conformity with the County's Master/Comprehensive plan(s). When appropriate, an application for an amendment to the Garfield County Master/Comprehensive Plan may be made as part of a PUD application. Any application for Master/Comprehensive Plan amendment must be approved by the Planning Commission, prior to its recommendation on

the PUD application, and may occur at the same meeting. Applications for Comprehensive Plan amendment shall include justification for the amendment based upon criteria for establishing land use designations contained in the Master/Comprehensive Plan. (A. 97-109) (added 2002-12; TPUD)

4.05 RELATIONSHIP TO ZONING AND SUBDIVISION

4.05.01 The Garfield County Subdivision Regulations, as the same may be from time to time amended, and the provisions of this Zoning Resolution, as the same may be from time to time amended, shall be applicable to PUDs insofar as said Regulations and Resolution are consistent with this section and with any specific zoning or subdivision requirements approved by the County Commissioners at the time of zoning or platting the PUD in question. To the extent that said Regulations and Resolution are inconsistent herewith, they shall not be applicable and the provisions of this section and, with respect to TPUDs, supplementary regulations in §5-12 shall control. (amended 2002-12)

4.05.02 It is recognized that the uniqueness of each proposal for a PUD and TPUD requires that the specifications, standards and requirements for various facilities, including but not limited to, affordable housing, streets, highways, alleys, utilities, curbs, gutters, sidewalks, street lights, parks, play-grounds, school grounds, storm drainage, water supply and distribution, and sewage collection and treatment, may be subject to modification from the specifications, standards, and requirements established in the Subdivision Regulations of Garfield County for like uses in other zone districts. The County Commissioners may, at the time of zoning as a PUD and TPUD, waive or modify the specifications, standards and requirements which would be otherwise applicable, as requested by the applicant. Any waiver or modification of specifications, standards and requirements will only be approved if it can be demonstrated that the proposed waiver(s) is consistent with "best engineering practices," as recommended by an engineer retained by the County. (A. 97-109) (amended 2002-12)

4.06 INTERNAL COMPATIBILITY OF PLANNED UNIT DEVELOPMENTS

It is recognized that certain individual land uses, regardless of their adherence to all the design elements provided for in this section, might not exist compatibly with one another. Therefore, a proposed PUD or TPUD shall be considered from the point of view of the relationship and compatibility of the individual elements of the Plan, and no PUD or TPUD shall be approved which contains incompatible elements internally or with neighboring property. (amended 2002-12)

4.07 STANDARDS AND REQUIREMENTS

4.07.01 The County Commissioners may approve a proposed PUD rezoning upon a finding that it will implement the purposes of this section and will meet the standards and requirements set forth in this section. A TPUD must also meet the additional standards and requirements set forth in the supplementary regulations found in §5.11 of this resolution. (amended 2002-12)

4.07.02 The number of off-street parking spaces for each use in each PUD shall not be less than the requirements for like uses in other zoning districts, except that the County Commissioners may increase or decrease the required number of off-street parking spaces in consideration of the following factors:

(1) Estimated number of cars owned by occupants of dwellings in the PUD;

(2) Parking needs of non-dwelling uses;

(3) Varying time periods of use whenever joint use of common parking areas is proposed.

4.07.03 The PUD shall meet the following site plan criteria unless the applicant can demonstrate that one (1) or more of them is not applicable or that a practical solution has been otherwise achieved:

(1) The PUD shall have an appropriate relationship to the surrounding area, with unreasonable adverse effects on the surrounding area being minimized.

(2) The PUD shall provide an adequate internal street circulation system designed for the type of traffic generated, safety, separation from living areas, convenience and access. Private internal streets may be permitted, provided that adequate access for police and fire protection is maintained. Bicycle traffic shall be provided for when the site is used for residential purposes.

(3) The PUD shall provide parking areas adequate in terms of location, area, circulation, safety, convenience, separation and screening.

(4) The PUD shall provide Common Open Space adequate in terms of location, area and type of the Common Open Space, and in terms of the uses permitted in the PUD. The PUD shall strive for optimum preservation of the natural features of the terrain.

(5) The PUD shall provide for variety in housing types and densities, other facilities and Common Open Space.

(6) The PUD shall provide adequate privacy between dwelling units.

(7) The PUD shall provide pedestrian ways adequate in terms of safety, separation, convenience, and access to points of destination and attractiveness.

(8) If centralized water and/or wastewater facilities are proposed within the PUD, they shall be provided for in a separate utility zone district that shall contain its own performance standards. No land within any utility zone district shall apply toward any category of open space calculation or requirement. The PUD shall demonstrate how

common water and wastewater facilities will be controlled or governed by the future owners within the PUD. (A. 97-109)

(9) Any disturbance of slopes in excess of 40%, shall be the minimum necessary to meet the development needs, with a revegetation and geotechnical plan submitted with the PUD application. (A. 97-109)

10) If community facilities are proposed to be contained or allowed in the PUD, the application shall discuss who or what entity shall be responsible for the provision of and payment for the proposed facilities. The facilities shall also be included within the overall common infrastructure requirements of the PUD, to include water, wastewater and parking requirements. (A. 97-109)

4.07.04 The maximum height of buildings may be increased above the maximum permitted for like buildings in other zone districts in relation to the following characteristics of the proposed building:

(1) It's geographical location;

(2) The probable effect on surrounding slopes and mountainous terrain;

(3) Unreasonable adverse visual effect on adjacent sites or other areas in the immediate vicinity;

(4) Potential problems for adjacent sites caused by shadows, loss of air circulation or loss of view;

(5) Influence on the general vicinity, with regard to extreme contrast, vistas and open space; and

(6) Uses within the proposed building.

(7) Development supportive of mass transit operations in a TPUD. (added 2002-12)

4.07.05 The maximum lot areas and the minimum setback restrictions may be decreased below and the maximum lot coverage may be increased above those applicable to like buildings in other zone districts to accommodate specific building types with unusual orientation on the lot or relationship between buildings. The averaging of lot areas shall be permitted to provide flexibility in design and to relate lot size to topography, but each lot shall contain an acceptable building site. The clustering of development with useable common open areas shall be permitted to encourage provision for, and access to, common open areas and to save street and utility construction and maintenance costs. Such clustering is also intended to accommodate contemporary building types which are not spaced individually on their own lots but share common side walls, combined service facilities or similar architectural innovations, whether or not providing for separate ownership of land and buildings. Architectural style of buildings shall not be a basis for denying approval of a PUD application.

4.07.06 The overall residential density shall be no greater than two (2) dwelling units per gross acre within the PUD; provided, however, that the County Commissioners may allow an increase to a maximum of fifteen (15) dwelling units per gross acre in areas where public water and sewer systems, owned and operated by a municipal government or special district (as defined by Section 32-1-103(20), C.R.S.) are readily available and the prior zoning classification allowed residential densities greater than two (2) dwelling units per gross acre, such increased densities shall nevertheless comply with the maximum lot coverage, minimum setback, maximum floor area ratio, maximum building height and parking standards of such prior zoning classification. The overall average residential density shall be calculated by summing the number of residential dwelling units planned within the boundary of the PUD and dividing by the total gross area expressed in acres

within the boundary of the PUD. The density of dwelling units in any particular area may be greater than the maximum permitted for a like use in other zone districts. Averaging and transferring of densities within the PUD shall be allowed upon a showing of conformance with the purposes of this section through appropriate design features within the PUD that will achieve high standards of design and livability. (A. 83-93, A. 96-87, A. 97-109) (amended 2002-12)

Where the application is a TPUD, and showing of conformance with the purposes of this section is deemed appropriate by the board, limitations set on previously zoned density of under two dwelling units per gross acre may be removed and the applicant may propose higher overall densities and exceed standard building height limitations otherwise specified herein, provided only that standards specified in 4.07.04 are considered. Special attention shall be given to fire protection and equipment needs triggered by such a proposal. Any proposal requesting a density above 5 dwelling units per gross acre within 2000 feet of a proposed or developed mass transit station or terminal shall provide 10% additional affordable housing units (In Study Area One, a total of 20%) with those units being within 2000 feet of the proposed station or terminal, even though previous zoning did not allow that level of density for those developments within 2000 feet. The intent of this section of the Resolution is to permit both the PUD allowance of increased density provided that 10% of the proposed units are affordable units, and an additional increased density, where increased density is proximate to and supports a transit station or terminal, and that higher density within 2000 feet of the transit station or terminal. The applicant must show a concentration of affordable units equaling 20% of the proposed housing stock where density exceeds five units per acre in Study Area One. (A. 83-93, A. 96-97, A. 97-109) (amended 2002-12)

4.07.07 The minimum number of acres that may comprise a PUD is two (2) acres.

4.07.08 All uses, which are permitted in the underlying zone district or consistent with the land use designations in the Comprehensive Plan, or approved as an amendment to the Comprehensive Plan, may be permitted in PUDs. (A. 95-043, A. 97-109)

The uses, which shall be permitted in any particular PUD shall be those permitted by the resolution zoning the particular area PUD.

4.07.09 Twenty-five percent (25%) of the total area within the boundary of any PUD shall be devoted to Common Open Space. Not more than twenty-five percent (25%) of the Common Open Space shall be an area of water classified as commercial open space. Of the 25% open space requirement within PUDs, no more than 40% of the 25% total required, shall be limited use open space, with the balance being retained as one or more of the remaining open space categories, listed above. Provided, however, that the County Commissioners may reduce such requirement if they find that such decrease is warranted by the design of, and the amenities and features incorporated into the Plan, and that the needs of the occupants of the PUD for Common Open Space can be met in the proposed PUD. (A. 97-109)

4.07.10 If any zone district within the PUD is proposed to contain time-share or fractional ownership units, or other similar interest in property, the provisions for such ownership shall be those that are approved by the Board of County Commissioners at the time the property is zoned PUD.

4.07.11 Findings of the Planned Unit Development Regulations Section: (2001-44)

It is essential and necessary for the preservation and for the maintenance of the health, welfare, safety, and quality of life in Garfield County to ensure the provision of affordable housing, which mitigates the impact of new development. Recognizing that new development generates additional employment needs, and being consistent with a

desire to have new development mitigate impacts attributable to such development, the County finds it necessary to require new development to provide affordable housing. Housing must be affordable to the local labor force in order for the local economy to remain stable and to grow in a healthy manner. (amended 2002-12)

4.07.12 Purpose:

The purpose of this Section is to implement through regulation the Housing Goals, Objectives, Policies, and Programs of the Garfield County Comprehensive Plan for Study Area One including the following statement: "To provide all types of housing that ensures current and future residents equitable housing opportunities which are designed to provide safe, efficient residential structures that are compatible with and that protect the natural environment".

The Garfield County land use review process will consider the housing needs of all economic segments of the community, and will assure that the impacts of new development will be mitigated, to the extent feasible, to assure an adequate affordable housing supply in the County. While the County recognizes that affordable housing is most desirable in or adjacent to towns, new developments throughout the unincorporated county are creating demands for workers in construction, maintenance, services, and retail sales.

4.07.13 General:

This Section applies to all Planned Unit Development applications, which include residential development in the Garfield County Comprehensive Plan's Study Area, 1.

4.07.14 Definitions:

For purposes of this section of the Zoning Resolution regulations, affordable housing is defined as resident-occupied housing units, the sale or rental of which units have been limited to specific segments of the market with permanent affordability insured through appreciation rates controlled by deed restriction or another legally-binding mechanism approved by the County Commission.

For the purpose of this section of the Zoning Resolution, unit is defined as a building used for residential occupancy which meets current County Building Code, not classified as a mobile home, and which contains one (1) complete kitchen, at least one (1) complete bathroom, at least one (1) living area, and from one (1) to six (6) bedrooms which is to be occupied by a single family living independently of any other family.

(1) Eligibility - Affordable housing units will be made available to full-time residents and/or employees in Garfield County who have a cumulative net worth, minus qualified retirement assets, not in excess of $100,000.00 and who satisfy the income criteria set forth in the Garfield County Affordable Housing Guidelines. A full time resident is one who will live at least ten months a year in the affordable unit. A full time employee is

one who works or will work at least 32 hours per week for a Garfield County based employment source. A person who has been recruited to work for a Garfield County based employment source must produce evidence of an offer of future employment. Priority will be given to Garfield County employees.

(2) Resale - The resale of affordable housing units will not exceed the purchase price plus the value of capital improvements authorized by the Housing Authority and the annual percentage increase in the annual Denver/ Boulder Urban Wage Earners CPI or 3%, whichever is less. Affordable housing units will have a deed restriction carried with the title, which will regulate future sales to qualified residents who meet residency requirements, asset limitations, and appreciation rates.

(3) Management - Ongoing management of the deed restrictions will be administered by the Garfield County Housing Authority, or another approved housing agency, according to an agreement brought forward by the applicant and approved by the County Commission. That agreement will also stipulate the means of determining the allocation of units, any proposed fees to fund the management agreement, and any other necessary terms. The agreement will be adopted as part of the final plat. The County will maintain a list of approved housing agencies in the Planning Director's office.

4.07.15 Requirements:

In order to fulfill the goals of the Comprehensive Plan while directing growth into the areas designated in that plan, requirements will be based on the Proposed Land Use Districts from the Comprehensive Plan.

4.07.15.01 For Lands Designated High Density Residential:

(1) Planned Unit Developments - All Planned Unit Development proposals, and Planned Unit Development Amendment requests which results in an increase in density, must provide that at least 10% of the housing mix are affordable housing units. Providing 10% affordable housing units will not, by itself, be sufficient to fulfill the PUD requirement for a variety of housing types and densities [Section 4.07.03(5)].

(2) Off-site - Given that these lands have been planned for two or less acres per dwelling unit, these are the locations most suited for affordable housing. Off-site proposals will only be approved by the County Commissioners if the applicant can demonstrate circumstances that would justify an off-site option. In any event, the applicant must show that affordable housing units meet the requirements of these regulations and the Garfield County Affordable Housing Guidelines, and that these housing units will actually be built in Study Area 1. No cash-in-lieu payment will be accepted.

4.07.15.02 For Lands With Any Land Use Designation Other Than High Density Residential:

(1) Planned Unit Developments - All Planned Unit Development proposals, and Planned Unit Development Amendment requests which results in an increase in density, must