

# NEW APPLICATION



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SW-03841A-01-0166

**Mountain Pass Utility Company**  
9532 East Riggs Road • Sun Lakes, Arizona 85248

February 26, 2001

Docket Control  
Arizona Corporation Commission  
1200 West Washington  
Phoenix, Arizona 85007

**Re: In the Matter of the Financing Application for Mountain Pass Utility Company in  
Docket No. SW-03841A-01**

Dear Sir or Madam:

Mountain Pass Utility Company ("MPUC" or the "Company") requests that the Commission issue as soon as possible an order authorizing MPUC to enter into certain specified financial transactions described herein.

MPUC is a corporation duly organized and existing under the laws of the state of Arizona with its principal office and place of business in Sun Lakes, Arizona. It will own and operate facilities to provide sewer utility service to the public in Pinal County located 25 to 30 miles north of Tucson pursuant to a sewer Certificate of Convenience and Necessity granted by the Arizona Corporation Commission in Decision No. 62757 dated July 25, 2000.

The Company presently does not serve any customers. However, MPUC was formed to provide sewer service to the customers in the community of SaddleBrooke Ranch, which is a planned community that will have approximately 6,200 homes at build-out.

The Company is in the process of obtaining all of its operating and discharge permits, and the first phase of the wastewater treatment plant is under design. MPUC is beginning to incur substantial cost for permitting, designing and constructing its facilities as it prepares to commence service in 2003, and requires authorization from the Commission for the financing that is necessary to pay the costs as they are incurred.

The Company ultimately desires to maintain an overall balance in its capital structure. However, since the Company will not have sufficient cash flow in its incipient years to service debt, the Company seeks authority to finance the initial sewer infrastructure required to serve the development with equity, and will seek authority to introduce long-term debt in connection with financing the additional sewer infrastructure that will be required to serve the balance of community as the development progresses. This financing plan will ultimately provide the appropriate balance in the capital structure.

The Company therefore requests approval of the following financing matter:

1. To issue up to \$7,200,000 of stock and paid in capital pro-rata to the shareholders of the corporation. The shareholders and their ownership percentages have not yet been determined because no stock has previously been issued.

A recap of the capital requirements to be met by the proposed financing is provided below:

First Phase of Wastewater Treatment Plant and Recharge Basins	\$4,347,000
Initial Collection System	1,500,000
Initial Lift Stations	300,000
Effluent Lines	150,000
Land	70,000
Generator, Vehicle, and Other Equipment	65,000
Engineering and Permitting for Items Above	643,200
Operating Losses	66,599
Subtotal (FIRST FIVE YEARS OF PROJECTED INFRASTRUCTURE)	7,141,799
Total Financing Requested (ROUNDED)	7,200,000

MPUC financial statements have not been provided because the Company is not in operation at this time. A Corporate Resolution authorizing the submission of this financing application is attached. The Company published notice of this financing application on February 24, 2001 in a newspaper that is generally circulated in the service area. A copy of that notice is attached.

Mountain Pass Utility Company requests that the Commission issue an order or orders containing the following approvals and authorizations:

1. Approving and authorizing MPUC to issue up to \$7,200,000 of new common stock; and
2. Ordering that an order be declared effective upon issuance.

An original and ten copies submitted.

Sincerely,



Jim Poulos  
General Manager

JP:ab

**CERTIFIED RESOLUTIONS  
OF THE BOARD OF DIRECTORS OF  
MOUNTAIN PASS UTILITY COMPANY**

The undersigned Assistant Secretary of MOUNTAIN PASS UTILITY COMPANY, an Arizona corporation (the "Corporation"), certifies the following resolutions were adopted by the board of directors of the Corporation by written consent dated as of January 31, 2001, and that such resolutions have not been modified or amended and remain in full force and effect:

WHEREAS, the Articles of Incorporation of the Corporation authorize the issuance of common stock;

WHEREAS, the Board of Directors of the Corporation previously authorized the issuance of common stock and wishes to file an application with the Arizona Corporation Commission for authority to issue the stock;

Financing Application to Arizona Corporation Commission

RESOLVED, that the Corporation seek authority from the Arizona Corporation Commission to issue up to one million shares of no par value common stock (the "Stock") for the purpose of financing the acquisition or construction, or both, of infrastructure and equipment relating to the Corporation's business activities,

Issuance of Stock

RESOLVED, that upon Arizona Corporation Commission approval of the issuance of the Stock, the Corporation offer such stock for purchase by those persons or entities duly subscribing therefor, and that upon acceptance of such subscription offers and receipt of payment, the Corporation issue the Stock;

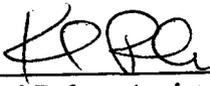
FURTHER RESOLVED, that if any subscriber fails to acquire his or her subscription of the Stock, then any one or more of the other subscribers of the Corporation may purchase such shares in such proportions as they may agree;

FURTHER RESOLVED, that the proper officers of the Corporation be, and they hereby are, authorized and directed to issue certificates representing the shares of Stock upon Arizona Corporation Commission approval and payment of the consideration therefor;

General

FURTHER RESOLVED, that the officers of the Corporation be, and they hereby are, authorized and directed to execute such documents and instruments as may be necessary or advisable to carry out the intent of these resolutions.

DATED: February 8, 2001

  
\_\_\_\_\_  
Karl Polen, Assistant Secretary

## **PUBLIC NOTICE**

### **APPLICATION FOR AN ORDER AUTHORIZING THE ISSUANCE OF COMMON STOCK BY MOUNTAIN PASS UTILITY COMPANY**

Mountain Pass Utility Company (Applicant) has filed an Application with the Arizona Corporation Commission (Commission) for an order authorizing Applicant to issue \$7,200,000 in Common Stock. The application is available for inspection during regular business hours at the offices of the Commission in Phoenix, Arizona, and Applicant's offices at 9532 East Riggs Road, Sun Lakes, Arizona 85248.

Intervention in the Commission's proceedings on the application shall be permitted to any person entitled by law to intervene and having a direct substantial interest in this matter. Persons desiring to intervene must file a Motion to Intervene with the Commission which must be served upon applicant and which, at a minimum, shall contain the following information:

1. The name, address and telephone of the proposed intervenor and of any person upon whom service of documents is to be made if different than the intervenor.
2. A short statement of the proposed intervenors interest in the proceeding.
3. Whether the proposed intervenor desires a formal evidentiary hearing on the application and the reasons for such a hearing.
4. A statement certifying that a copy of the Motion to Intervene has been mailed to Applicant.

The granting of Motions to Intervene shall be governed by a A.A.C. R14-3-105, except that all Motions to Intervene must be filed on, or before, the 15<sup>th</sup> day after this notice.

## DIRECT TESTIMONY OF JAMES L. POULOS

1Q. *Please state your name, position and business address.*

1A. My name is James L. Poulos. I am the General Manager of Mountain Pass Utility Company which I will refer to as "MPUC" or the "Company". My business address is 9532 E. Riggs Road, Sun Lakes, Arizona 85248

2Q. *Please describe your education, background and experience.*

2A. I received a Bachelor of Arts degree in Economics with an emphasis in Accounting from Claremont McKenna College. I was a staff accountant for approximately two years with the international accounting firm of Arthur Andersen & Company. I then served as controller for a number of companies for over 10 years, including four public utilities. Since October 1994, I have served as general manager of five public utilities operating in the State of Arizona. My experience over seventeen years includes planning, constructing and operating four mechanical wastewater treatment plants, building eight water storage reservoirs as well as building and operating four water treatment facilities, drilling several wells, preparing and overseeing operating and capital budgets, obtaining and monitoring compliance with wastewater reuse, aquifer protection and NPDES permits, overseeing the staff of the water and wastewater operations, monitoring compliance with state Safe Drinking Water regulations and the requirements under the Federal Clean Water Act, obtaining and monitoring six air quality permits, constructing and operating an underground storage and recovery project, constructing and operating a groundwater savings facility, obtaining and administering nearly \$15,000,000 in IDA bonds, and serving as the Company witness and testifying in numerous water and sewer rate, financing and Certificate of Convenience and Necessity cases before the Arizona Corporation Commission. I am also a Certified Public Accountant in the State of Arizona.

3Q. *Would you briefly describe the Company's operations and service territory.*

3A. The Company was recently created to provide wastewater service to the age restricted master planned community of SaddleBrooke Ranch, which will consist of 6,200 residential units and some light commercial facilities. MPUC is not serving any customers at this time. The Company's sewer Certificate of Convenience and Necessity (CC&N) was issued by the Arizona Corporation Commission on July 25, 2000 in Decision No. 62757, and it covers approximately 2,500 acres of land in Pinal County, Arizona approximately 25-30 miles north of the City of Tucson.

4Q. *Did you cause to be filed with the Arizona Corporation Commission ("Commission") an application of the Company for an order authorizing financing transactions?*

4A. Yes. This application seeks authority for the initial financing for the Company.

5Q. *What approvals are being requested by MPUC in this application?*

5A. MPUC is requesting approval to issue up to \$7,200,000 in new common stock which will be used to construct and operate the facilities required to serve the customers in the first five years of the SaddleBrooke Ranch Development.

6Q. *Why is MPUC seeking authorization for financing at this time?*

6A. The Company is in the process of obtaining all of its operating and discharge permits, and the first phase of the wastewater treatment plant is under design. Since MPUC is beginning to incur substantial costs for permitting, designing and constructing its facilities to commence service to customers in 2003, it requires authorization from the Commission for the financing that is necessary to pay the costs as they are incurred.

7Q. *Please describe how the funds will be expended that will be provided by the financing proposed in this application.*

7A. The funds will be used to construct and operate the facilities required to serve the customers in the first five years of the SaddleBrooke Ranch development, which include:

- (1) \$4,347,000 to construct the first phase of the wastewater treatment plant and the recharge basins;
- (2) \$1,500,000 to construct the sewage collection system in the first five years;
- (3) \$300,000 to construct the first two lift stations;
- (4) \$150,000 to construct the effluent delivery lines;
- (5) \$70,000 to acquire the land for the wastewater treatment plant;
- (6) \$65,000 to acquire a generator, vehicle and other equipment required for the first five years of operation;
- (7) \$643,200 to permit and design the wastewater treatment plant, the recharge basins, the collection system and the lift stations; and
- (8) \$66,599 will provide the funds necessary to finance the cash flow deficiency projected for the first year of operation.

Please refer to Attachment 1 for a delineation of these items and amounts. A detailed analysis of the costs for the wastewater treatment plant and the recharge basins is provided in Attachment 2, which is a pre-design report prepared by Carollo Engineers for these facilities. The amounts for the other items were estimates prepared by the Company, which includes \$1,500,000 in sewer collection lines which is based on \$1,500 per connection for the 200 units per year in each of the first five years projected for the development. The cost per connection is based on recent sewer collection line costs incurred in SaddleBrooke which is a similar development. A schedule of these costs is provided on Attachment 6.

8Q. *Why is the Company proposing to use equity to finance the \$7,200,000 cost of the initial wastewater facilities?*

8A. The Company's shareholders will provide the funds for the initial facilities that are required to provide sewer service to its customers. The Company believes that there should be a balance between debt and equity in the capital structure, however, since these facilities will provide service to a new development with a limited initial customer base, the Company will not have sufficient cash flow in its incipient years to service debt. In addition, it is unlikely that the Company will be able to obtain debt financing in the first five years of operation. As a result, the

Company seeks authority to finance the sewer infrastructure required to serve the development in the first five years with equity.

**9Q. *Were the initial rates granted in Decision No. 62757 based on financing all of the facilities in the first five years with equity?***

**9A.** Yes. The Company's proposal to issue the equity in this financing application is consistent with the financing method used to derive the initial rates.

**10Q. *Does the Company plan to eventually introduce long-term debt into the capital structure?***

**10A.** Yes. The Company has prepared a projection of the sewer infrastructure costs that will be required to provide service to customers in years 6 through 15 of the SaddleBrooke Ranch development on Attachment 3. The total projected costs are \$7,300,000, which is nearly identical to the \$7,200,000 in financing required for the first five years of construction and operation. Although the Company is not requesting authority to issue long-term debt to finance the construction of facilities required in years 6 through 15 in connection with this financing application, MPUC plans to use long-term debt to finance the costs to construct those facilities. This financing plan will ultimately bring the capital structure into a balance between debt and equity.

**11Q. *Why is the Company proposing to finance the cash flow deficiency projected for the first year of operation in the amount of \$66,599 with equity?***

**11A.** The Company needs sufficient financial resources to meet its obligations as they come due. Since the cash flow estimates in the first year of operations for the utility project a deficit, this deficiency must be financed by the shareholders. The Company testified at the hearing where the initial rates were established that the shareholders would finance all deficiencies in operating cash flows.

**12Q. *How was the projected cash flow deficiency in the first year derived?***

**12A.** From a projection of operating revenues and operating expenses that were prepared in connection with the application for the initial rates in Decision No. 62757. Copies of these projections are also included in this testimony as Attachment 4 and Attachment 5, respectively.

**13Q. *In your opinion, is the execution, delivery and performance by the Company of the documents and other agreements contemplated in the application and your testimony for lawful purposes?***

**13A.** Yes.

**14Q. *Are those purposes within the Company's corporate powers?***

**14A.** Yes.

**15Q. *Are those purposes within sound financing practices?***

**15A.** Yes.

16Q. *Is the carrying out of such purposes a proper performance by the Company of its services as public service corporation?*

16A. Yes.

17Q. *Will the carrying out of such purposes impair the Company's ability to perform such services?*

17A. No.

18Q. *Are you of the opinion that the execution, delivery and performance of the agreements and documents contemplated in the application and your testimony are necessary or appropriate for the aforementioned purposes?*

18A. Yes.

19Q. *Will the expenditures for such purposes be wholly or in part reasonably chargeable by the Company to operating expenses or to income?*

19A. Except as described in the application and this testimony expenditures are not reasonably chargeable to operating expense or income.

20Q. *Do you believe that the transactions contemplated by the application and described in your testimony are compatible with the public interest?*

20A. Yes.

21Q. *Is the Company incorporated in the State of Arizona?*

21A. Yes it is.

22Q. *Is the Company a public service corporation in the State of Arizona?*

22A. Yes. The Company will provide sewer utility service to the public in the area of SaddleBrooke Ranch, Pinal County, Arizona pursuant to its CC&N.

23Q. *Have you read the application in its entirety?*

23A. Yes.

24Q. *Are the statements made in the application true to the best of your knowledge?*

24A. Yes and I would incorporate them by reference as a part of my testimony.

25Q. *Does this conclude your direct testimony?*

25A. Yes.

## Attachment 1

MOUNTAIN PASS UTILITY COMPANY  
 WASTEWATER PLANT CONSTRUCTION SCHEDULE  
 YEARS 1 THROUGH 5

	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>YEAR 5</u>
FIRST PHASE MECHANICAL PLANT & RECHARGE BASINS	4,347,000	0	0	0	0
COLLECTION SYSTEM	300,000	300,000	300,000	300,000	300,000
GENERATOR	30,000	0	0	0	0
VEHICLE	10,000	0	0	0	0
EQUIPMENT	5,000	5,000	5,000	5,000	5,000
LIFT STATIONS	150,000	0	150,000	0	0
EFFLUENT LINES	150,000	0	0	0	0
LAND	70,000	0	0	0	0
TOTAL YEARS 1-5					6,432,000
ADD: 10% FOR ENGINEERING AND PERMITTING					643,200
TOTAL CONSTRUCTION COSTS YEARS 1 THROUGH 5					7,075,200
CASH FLOW					
	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>YEAR 5</u>
PROJECTED REVENUE	132,023	258,045	384,068	510,090	636,113
PROLECTED TOTAL EXPENSES	(292,242)	(307,533)	(331,878)	(351,964)	(375,968)
ADD BACK: DEPRECIATION	93,620	97,720	104,820	108,920	113,020
CASH FLOW	(66,599)	48,232	157,010	267,046	373,165
TOTAL NEGATIVE CASH FLOW					66,599
TOTAL FINANCING REQUIRED					7,141,799
TOTAL FINANCING REQUESTED (ROUNDED)					7,200,000



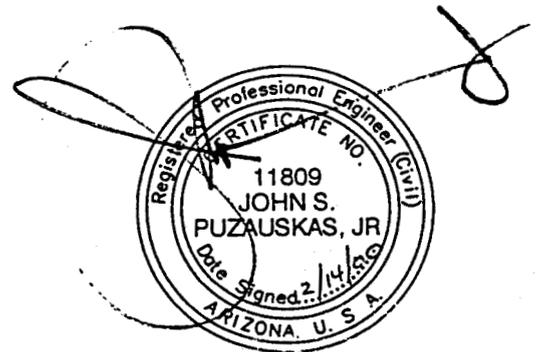
SaddleBrooke Ranch  
Phase 1  
**PRE-DESIGN REPORT**  
**SADDLEBROOKE RANCH**  
**WASTEWATER TREATMENT PLANT**  
February 2000  
Robson Communities

SADDLEBROOKE RANCH  
WASTEWATER TREATMENT PLANT

PRE-DESIGN REPORT

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# SADDLEBROOKE RANCH WASTEWATER TREATMENT PLANT

## 1.0 Introduction

**S**addleBrooke Ranch at Falcon Valley, a development by the same principals that developed the communities of SaddleBrooke and Sun Lakes, is currently in the planning stage. The development will be located in Pinal County, northwest of the intersection of State Highway 77 and Highway 79 and northwest of the existing SaddleBrooke development. The development is a planned retirement community, with three 18-hole championship golf courses, clubhouses, and other amenities. The build out population for the community is estimated at 6,200 dwelling units. Carollo Engineers, P.C. was commissioned by Mountain Pass Utility Company (MPUC) to develop a preliminary design for a wastewater treatment plant (WWTP) to serve the SaddleBrooke Ranch community. This pre-design report highlights the critical planning and design issues identified for the plant, including regulatory permits. MPUC plans to reuse the effluent from the facility on the three golf courses, and to use an alternate method of effluent disposal by recharging the aquifer. There will also be discharges of effluent to surface waters. The effluent management and disposal options will contribute to the selection of wastewater treatment methods.

## 2.0 Site Master Planning

The SaddleBrooke Ranch site is currently planned to be developed over a 20 year period at an estimated rate of 310 dwelling units per year for a build out of 6200 dwelling units. The wastewater treatment plant will serve a primarily residential community. Population and wastewater flow projections for SaddleBrooke Ranch through 2021 are provided in Table 1. Based on a peak daily flow during the peak month of 185 gpd per dwelling unit, ultimate plant capacity will be 1.2 mgd. Wastewater flow projections were based on a projected occupancy density of 2.0 people per dwelling unit. It is anticipated that this ratio will remain consistent for future development. The ratio is based on actual data from the SaddleBrooke Development, a community of similar size and type.

The SaddleBrooke Ranch sewer system will flow northeast to southwest to the wastewater treatment plant. The plant will be located on a site in the southwest corner of the SaddleBrooke Ranch property. From the flow projections over the 20-year period it would be reasonable to master plan the plant for two separate 600,000 gpd treatment trains, the first treatment train handling the wastewater flows for the first ten years of development, and a duplicate train being added to handle the additional flow through build out. A dual treatment train configuration would be similar to the existing wastewater treatment plant at the nearby SaddleBrooke Development.

**Table 1 SaddleBrooke Ranch Wastewater Flow Projections**  
SaddleBrooke Ranch Wastewater Treatment Plant

Year	Dwelling Units	Population (2 people per unit)	Projected Wastewater Flow (gpd)
2002	310	620	57,350
2003	620	1,240	114,700
2004	930	1,860	172,050
2005	1,240	2,480	229,400
2006	1,550	3,100	286,750
2007	1,860	3,720	344,100
2008	2,170	4,340	401,450
2009	2,480	4,960	458,800
2010	2,790	5,580	516,150
2011	3,100	6,200	573,500
2012	3,410	6,820	630,850
2013	3,720	7,440	688,200
2014	4,030	8,060	745,550
2015	4,340	8,680	802,900
2016	4,650	9,300	860,250
2017	4,960	9,920	917,600
2018	5,270	10,540	974,950
2019	5,580	11,160	1,032,300
2020	5,890	11,780	1,089,650
2021	6,200	12,400	1,147,000

Note: SaddleBrooke Ranch will be built out in the year 2021, and there are no plans for future phases. Peak daily flow in the peak month per dwelling unit is assumed to be 185 gpd.

There are several methods of effluent management required for this project. The final destination of the effluent dictates the level of treatment required. An objective is to provide treatment of the wastewater to produce effluent of a quality suitable for golf course and landscape irrigation. However, at certain times of the year the wastewater supply will exceed the demand, and another means for effluent disposal is required. Big Wash runs on the western boundary of the property. Discharge of the effluent to the wash is a requirement because of discharges of effluent off of the project during storm events. Effluent recharge, either through percolation beds or vadose wells, is another method of effluent disposal which is desirable because effluent credits may be accumulated.

Three methods of effluent management and disposal, and the associated effluent quality, and permits required are summarized in Table 2. A water balance was performed and is illustrated for the fifth year and the 20<sup>th</sup> year of the development in Table 3 and Table 4, respectively. The water balance

helps predict at what times of the year alternative effluent disposal methods such as recharge will be needed, when consumptive use of the effluent on the golf courses can be expected.

Table 2 Effluent Management Requirements SaddleBrooke Ranch			
Effluent Use	Effluent Quality	Permits from Arizona Department of Environmental Quality (ADEQ)	Comments
Open Access Direct Reuse	Coliform bacteria $\leq$ 25/100 mL Turbidity $\leq$ 5 NTU No nitrogen standard	Reuse permit, Aquifer Protection Permit (APP)	Lagoon system will not meet the quality requirements
Discharge to surface waters	Coliform bacteria $\leq$ 200/100 mL No turbidity standard No nitrogen standard Metal Standards	Aquifer Protection Permit (APP), National Pollutant Discharge Elimination System (NPDES) Permit	Need activated sludge and filtration to meet BOD/SS and metal standards
Recharge	VOC Standards Nitrate $\leq$ 10 mg/L as N Metal Standards	Aquifer Protection Permit (APP)	Need nitrogen removal system (nitrification/denitrification)

Due to the requirement to have several effluent disposal options, nitrogen and metal removal, with advance treatment that meets the Best Available Demonstrated Control Technology (BADCT) is necessary in the treatment process. A lagoon system would not remove suspended solids, nitrogen or metals, nor would it meet total coliform and turbidity limitations. Lagoons are not considered by ADEQ to meet BADCT requirements. Permitting requirements are further discussed in section 4.0 of this report.

### 3.0 Preliminary Design Report

The Mountain Pass Utility Company will own and operate the new WWTP at SaddleBrooke Ranch. The SaddleBrooke WWTP, operated by the SaddleBrooke Utility Company, is of similar size (1.24 mgd), has similar wastewater characteristics and effluent quality requirements, and has similar population demographics as is expected at the SaddleBrooke Ranch development. Therefore, it is practical to maintain as many similarities as possible between the SaddleBrooke Ranch WWTP and the existing SaddleBrooke WWTP, both in plant configuration and in size of process units. Both utilities share overlapping principals and management.

**Table 3**  
**SaddleBrooke Ranch Water Balance**

Year 5

Pertinent Information:

- 1 golf course(s) (18 holes)
- 0 acres Irrigation Ponds (Non-Effluent Lake)
- 4.7 acres of effluent lakes, assumed
- 310 new dwelling units per year, assumed
- 1550 dwelling units
- 90 acres of Turf per Golf Course
- 55 acres of Low Water Use Landscape Area (LWULA)
- 113 Average Annual Effluent Production Rate - gallons per day per dwelling unit
- 6192 total buildout - 20 year buildout

Water Usage Rates:

- 4.9 acre-ft per acre for Turf
- 6.2 acre-ft per acre for Pond/Lake Evaporation
- 1.5 acre-ft per acre for Low Water Use Landscape Area (LWULA)

WATER BALANCE	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Pond/Lake Evaporation per month	acre-ft per acre	0.2	0.2	0.4	0.6	0.8	0.8	0.9	0.8	0.6	0.4	0.3	0.2
Pond/Lake Evaporation per month	acre-ft	0.9	5.4	10.8	16.3	21.7	21.7	24.4	21.7	16.3	10.8	8.1	5.4
Watering of Turf	acre-ft per acre	0.1	0.1	0.2	0.4	0.5	0.7	0.9	0.8	0.5	0.4	0.2	0.1
Watering of Turf	acre-ft	9.0	9.0	18.0	36.0	45.0	63.0	81.0	72.0	45.0	36.0	18.0	9.0
Watering of LWULA	acre-ft per acre	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1
Watering of LWULA	acre-ft	5.5	5.5	5.5	5.5	5.5	11.0	11.0	11.0	5.5	5.5	5.5	5.5
Total Monthly Water Required	acre-ft	15.4	19.9	34.3	57.8	72.2	95.7	116.4	104.7	66.8	52.3	31.6	19.9
Days per month	days	31.0	28.0	31.0	30.0	31.0	30.0	31.0	31.0	30.0	31.0	30.0	31.0
Monthly Effluent Production Rate	gpd/dwelling unit	138.4	133.4	137.1	122.8	107.6	93.6	83.8	86.5	89.1	94.2	123.8	125.6
Total Monthly Effluent Produced	acre-ft	20.4	17.8	20.2	17.5	15.9	13.4	12.4	12.8	12.7	13.9	17.7	18.5
Average rainfall (est.)	inches	0.8	0.9	0.9	0.3	0.1	0.1	0.7	1.0	1.0	0.6	0.7	1.1
based on PebbleCreek	feet	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Total Rainfall Volume	acre-ft	10.1	11.6	10.9	3.4	1.1	0.6	8.5	11.9	11.9	8.0	9.0	13.3
Total Monthly Water Produced	acre-ft	30.5	29.4	31.1	20.9	17.0	14.0	20.8	24.6	24.6	21.9	26.6	31.9

Water Balance	acre-ft	15.1	9.4	(3.3)	(36.9)	(55.2)	(81.7)	(95.5)	(80.1)	(42.2)	(30.5)	(5.0)	11.9
	gpm	110.0	76.3	(23.8)	(278.0)	(402.8)	(616.3)	(697.4)	(584.5)	(318.3)	(222.3)	(37.6)	87.2
	mgd	0.2	0.1	(0.0)	(0.4)	(0.6)	(0.9)	(1.0)	(0.8)	(0.5)	(0.3)	(0.1)	0.1

Total Excess Effluent to Recharge

	acre-ft	15.1	recharging each excess month - per year total										
	mgd	0.2											

Total Water Required

	acre-ft	(393.8)	total per year										
	mgd	(4.2)											

**Table 4**  
**SaddleBrooke Ranch Water Balance**

Year 20

Pertinent Information:

- 3 golf course(s) (18 holes)
- 0 acres Irrigation Ponds (Non-Effluent Lake)
- 4.7 acres of effluent lakes, assumed
- 310 new dwelling units per year, assumed
- 6200 dwelling units
- 90 acres of Turf per Golf Course
- 0 acres of Low Water Use Landscape Area (LWULA)
- 113 Average Annual Effluent Production Rate - gallons per day per dwelling unit
- 6200 total buildout - 20 year buildout

Water Usage Rates:

- 4.9 acre-ft per acre for Turf
- 6.2 acre-ft per acre for Pond/Lake Evaporation
- 1.5 acre-ft per acre for Low Water Use Landscape Area (LWULA)

WATER BALANCE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Pond/Lake Evaporation per month	acre-ft per acre	0.2	0.2	0.4	0.6	0.8	0.8	0.9	0.8	0.6	0.4	0.3	0.2
Pond/Lake Evaporation per month	acre-ft	0.9	5.4	10.8	16.3	21.7	21.7	24.4	21.7	16.3	10.8	8.1	5.4
Watering of Turf	acre-ft per acre	0.1	0.1	0.2	0.4	0.5	0.7	0.9	0.8	0.5	0.4	0.2	0.1
Watering of Turf	acre-ft	27.0	27.0	54.0	108.0	135.0	189.0	243.0	216.0	135.0	108.0	54.0	27.0
Watering of LWULA	acre-ft per acre	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1
Watering of LWULA	acre-ft	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Total Monthly Water Required	acre-ft	27.9	32.4	64.8	124.3	156.7	210.7	267.4	237.7	151.3	118.8	62.1	32.4
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Days per month	days	31.0	28.0	31.0	30.0	31.0	30.0	31.0	31.0	30.0	31.0	30.0	31.0
Monthly Effluent Production Rate	gpd/dwelling unit	138.4	133.4	137.1	122.8	107.6	93.6	83.8	86.5	89.1	94.2	123.8	125.6
Total Monthly Effluent Produced	acre-ft	81.6	71.0	80.9	70.1	63.5	53.4	49.4	51.0	50.9	55.6	70.6	74.1
Average rainfall (est.)	inches	0.8	0.9	0.9	0.3	0.1	0.1	0.7	1.0	1.0	0.6	0.7	1.1
based on PebbleCreek	feet	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Total Rainfall Volume	acre-ft	18.5	21.3	19.9	6.2	2.1	1.1	15.6	21.7	21.7	14.7	16.5	24.5

Total Monthly Water Produced	acre-ft	100.2	92.3	100.8	76.3	65.5	54.5	65.0	72.7	72.6	70.2	87.1	98.6
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Water Balance	acre-ft	72.2	59.9	36.0	(48.0)	(91.1)	(156.1)	(202.4)	(164.9)	(78.7)	(48.6)	25.0	66.1
	gpm	527.2	484.2	262.5	(361.8)	(665.3)	(1177.7)	(1477.2)	(1203.9)	(593.3)	(354.8)	188.5	482.8
	mgd	0.8	0.7	0.4	(0.5)	(1.0)	(1.7)	(2.1)	(1.7)	(0.9)	(0.5)	0.3	0.7

Total Excess Effluent to Recharge	acre-ft	259.2	recharging each excess month - per year total										
	mgd	2.8											

Total Water Required	acre-ft	(530.5)	total per year										
	mgd	(5.6)											

The WWTP at SaddleBrooke meets all standards for effluent quality. Based upon the existing SaddleBrooke WWTP, the new SaddleBrooke Ranch WWTP would consist of the following processes: a headworks with an in-channel comminutor, influent pump station, a package nitrification/de-nitrification (NDN) facility, automatic backwash filters, and an ultraviolet disinfection system. The plant would also include solids handling facilities for the treatment of sludge. These processes were chosen to treat residential waste. The service area of the SaddleBrooke Ranch WWTP will contain primarily residential sources. No industrial or institutional sources are proposed for the SaddleBrooke Ranch at Falcon Valley development.

An in-channel comminutor at the headworks would handle inorganic solids. A manually cleaned bar screen would be located in a bypass channel as a backup to the comminutor. To measure the influent flow, a Palmer-Bowlus flume would be employed upstream of the comminutor. Between the flume and the comminutor, the channel would widen and would be designed with a depressed area to allow for settling of grit.

Flow from the headworks would be pumped from the influent pump station to a DAVCO package NDN facility. This extended aeration plant is a modification of the activated sludge system providing an approximate detention time of twenty-four hours, and consists of a steel tank with aeration basin and anoxic basins, integral clarifier, and aerobic digester.

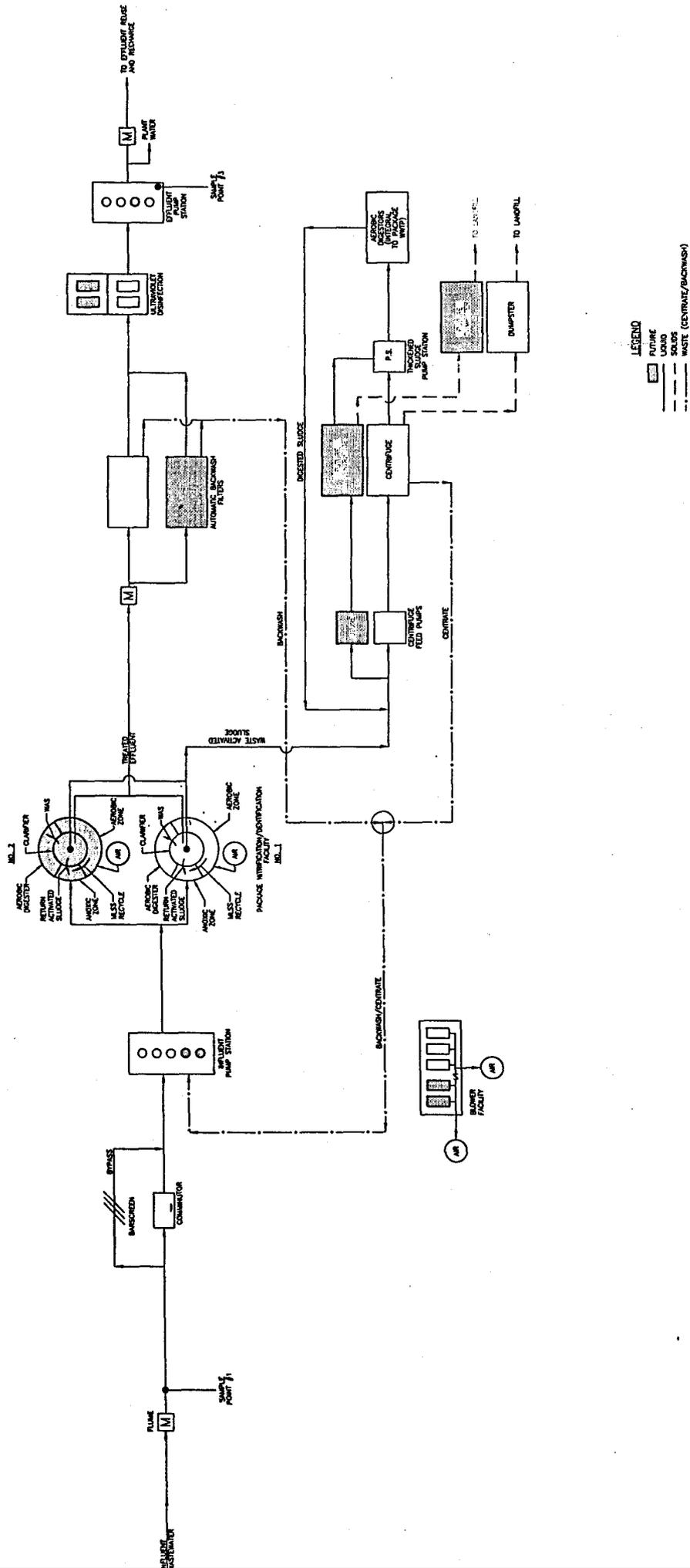
Automatic backwash (ABW) traveling bridge sand filters and ultraviolet (UV) disinfection satisfy anticipated permitting and treatment requirements. Traveling bridge filters are capable of producing the low turbidity, and low solids in the effluent necessary for effective UV disinfection.

Associated facilities would include: centrifuge dewatering facilities, effluent pump station, and emergency standby power facilities. The process flow diagram for the facility is illustrated on Figure 1. The site plan of the facility is illustrated on Figure 2.

The process train, site layout, electrical distribution system and hydraulic profile will be master planned for two 0.6 mgd treatment trains staged in two phases. The first phase would include an influent pump station, headworks, effluent pump station, standby generator, blower area and solids handling facility, sized for the ultimate capacity of the plant, but outfitted for 0.6 mgd. Also included in phase I would be a 0.6 mgd DAVCO package nitrification/denitrification (NDN) facility, and two traveling bridge filters and UV disinfection for 0.6 mgd. The odor control system would be sized for 1.2 mgd.

Phase II of the plant would add a second DAVCO unit for an additional 0.6 mgd (1.2 mgd total), a third traveling bridge filter, and a second UV disinfection channel. Pumps and equipment would be added to the influent pump station, effluent pump station, standby generator, blower area and solids handling facility as necessary to handle the ultimate capacity of the plant.

A preliminary basis of design was developed for the treatment processes and is outlined in Table 5.



**FIGURE 1**

**PROCESS FLOW DIAGRAM**

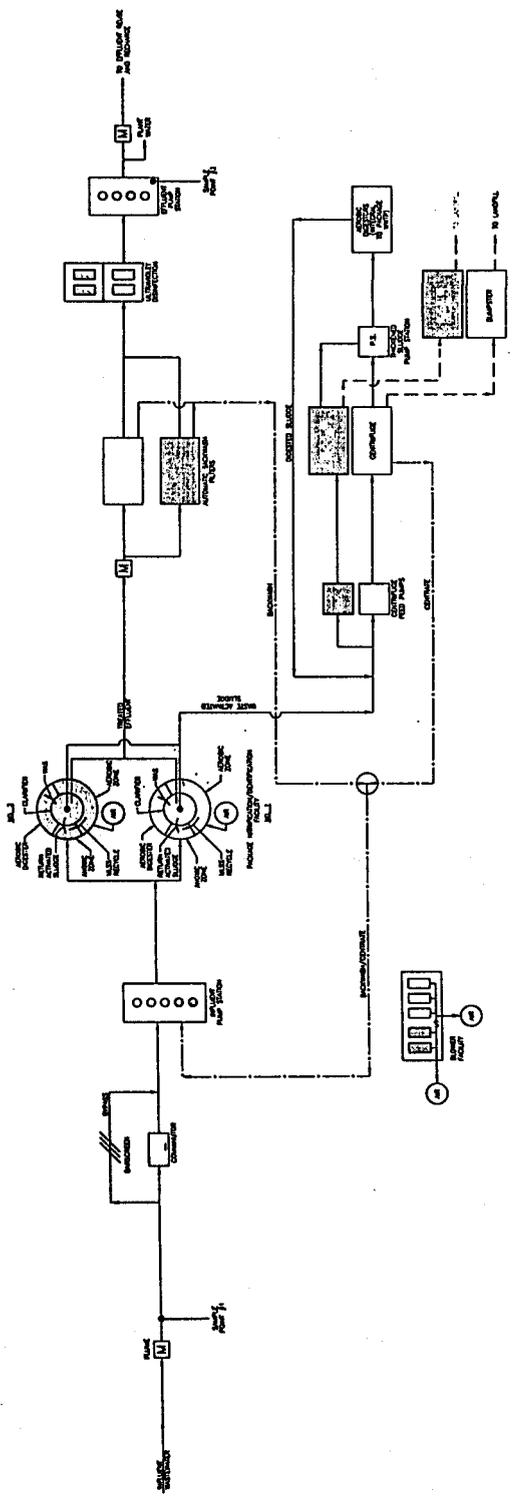


FIGURE 1  
PROCESS FLOW DIAGRAM

H:\Client\Saddlbrk\_PHC\4560A00\FIGURE\FIG2 02/11/00 14:18 adorbini XREFS: SB811BDR

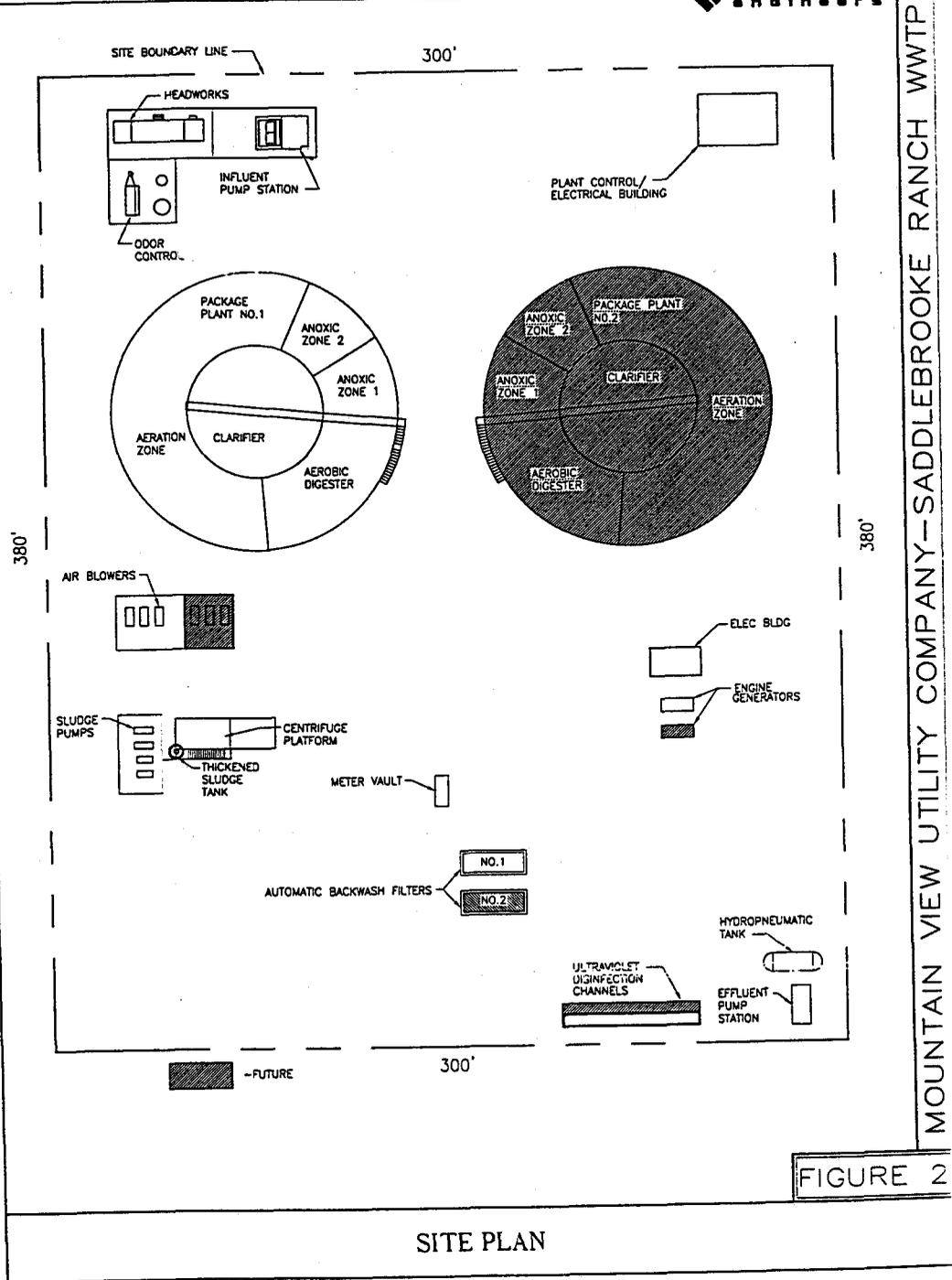


FIGURE 2

SITE PLAN

**Table 5 SaddleBrooke Ranch Wastewater Treatment Plant Basis of Design**  
SaddleBrooke Ranch Wastewater Treatment Plant

Process Unit or Design Parameter	Phase I (future)	Phase I (future)	
<b>1. RAW WASTEWATER</b> a. Flow, mgd • Maximum Day in Maximum Month • Instantaneous Hydraulic Peak b. Characteristics • Biochemical Oxygen Demand (BOD), mg/L • Total Suspended Solids (TSS), mg/L • Organic Nitrogen (Org-N), mg/L • Ammonia Nitrogen (NH <sub>3</sub> -N), mg/L • Nitrite/Nitrate Nitrogen (NO <sub>2,3</sub> -N), m • Total Nitrogen (Total N), mg/L • Alkalinity, mg/L CaCO <sub>3</sub> • Temperature range, degrees Centigrade	0.6 (1.2) 1.8 (3.6) 280 250 12 36 0 48 250 10-28	<b>6. CLARIFIER</b> a. Number of Basins b. Basin Dimensions • Average Water Depth, feet • Diameter, feet c. Surface Area per Basin, sf d. Volume per Basin, gal e. Surface Loading Rate, gpd/sf f. Hydraulic Detention Time, hour g. Effluent Weir Loading Rate (gpd/ft)	1 (2) 15.0 51.58 2,090 234,500 297 9.07 3,827
<b>2. PRELIMINARY TREATMENT</b> a. Type of Comminutor b. Number of Units c. Maximum Capacity per Unit, mgd	In-Channel 1 3.9	<b>7. RETURN ACTIVATED SLUDGE PUMPS</b> a. Type b. Number of Units • Active • Standby c. Rated Capacity per Pump, gpm d. RAS : Q <sub>w</sub>	Centrifugal 1 (2) 1 (2) 860 0.75-1.5
<b>3. BAR SCREEN FACILITY</b> a. Type b. Number of Units c. Maximum Capacity per Screen, mgd d. Screen Width, inch e. Clear Bar Spacing, inch	Manual 1 4.0 30.0 1.625	<b>8. BLOWERS</b> a. Type b. Number of Units • Active • Standby • Total c. Rated Capacity per Blower, cfm d. Discharge Pressure, psig	Centrifugal 2 (3) 1 3 (4) 1,400 7.0
<b>4. INFLUENT PUMP STATION</b> a. Type of Pump b. Number of Units • Active • Standby • Total c. Rated Capacity per Pump, gpm d. TDH, feet	Submersible 2 (4) 1 3 (5) 625 41	<b>9. ODOR CONTROL</b> a. Type of Odor Control b. Number of Units c. Rated Capacity, scfm d. Minimum percent removal H <sub>2</sub> S	Wet Scrubber 1 99.0
<b>5. BIOLOGICAL NITRIFICATION/DENITRIFICATION REACTOR</b> a. Number of Reactors b. Reactor Dimensions • Average Liquid Depth, feet • Inside Diameter, feet • Outside Diameter, feet c. Volume per Reactor • Anoxic Zone 1, gal • Anoxic Zone 2, gal • Aerobic Zone, gal d. Total Reactor Volume, gal e. Hydraulic Detention Time, hour • Anoxic Zone 1 • Anoxic Zone 2 • Aerobic Zone f. Aeration System • Type • Air Supply per reactor, cfm g. MLSS Recycle Ratio	1 (2) 15.0 51.58 108.75 77,500 77,500 465,000 620,000 24 3.0 3.0 18.0 Coarse Bubble 1,555 4:1	<b>10. TERTIARY FILTERS</b> a. Number of Units b. Filter Dimensions, each • Length, feet • Width, feet • Depth of Media, inch c. Surface Area per Filter, sf d. Total Filter Surface Area, sf e. Filter Loading, gpm/sf • at max day max month, all units operating • at peak plant flow with all units operating • at max day max month, one filter out f. Backwash Rate, gpm/sf	1 (2) 20 6.0 22.0 120 240 (360) 1.7 (2.3) 5.2 (6.9) 3.5 (3.5) 25.0

Table 5 SaddleBrooke Ranch Wastewater Treatment Plant Basis of Design SaddleBrooke Ranch Wastewater Treatment Plant			
Process Unit or Design Parameter	Phase I (future)		Phase I (future)
<b>11. ULTRAVIOLET DISINFECTION</b> a. Number of Channels b. Number of Units c. Rated Capacity, mgd d. Effluent Fecal Coliform/100 mL	1 (2) 2 (4) 1.2 (2.4) 25	<b>16. POLYMER BLENDING UNITS</b> a. Number of Units b. Neat Polymer Feed Rate per Unit (gph)	1 0.57
<b>12. FINAL EFFLUENT CHARACTERISTICS</b> a. Flow, mgd (Daily Average) b. BOD, mg/L (Maximum) c. TSS, mg/L (Maximum) d. Org-N, mg/L e. NH <sub>3</sub> -N, mg/L f. NO <sub>2,3</sub> -N, mg/L g. Total N, (as N), mg/L (Maximum) h. Turbidity, NTU (Maximum) i. Fecal Coliform, CFU/100 mL (Maximum) j. Enteric Virus, PFU/40 liters k. Alkalinity, mg/L CaCO <sub>3</sub>	0.57 (1.15) 10 10 1.5 1.0 5.0 8.0 5.0 200 1.0 147.0	<b>17. AEROBIC DIGESTER</b> a. Number of Units b. Digester Volume, gal. c. Side Water Depth, feet d. Aeration System • Type • Air Supply per Basin, cfm e. Detention Time, days	1 (?) 183,000 15 Coarse Bubble 418 15
<b>13. EFFLUENT PUMP STATION</b> a. Type of Pump b. Number of Units • Active • Effluent • Plant Water • Standby • Effluent • Plant Water • Total c. Rated Capacity per Pump, gpm • Effluent • Plant Water d. TDH, feet • Effluent • Plant Water	Vertical Turbine 1 (2) 1 1 0 4 975 160 300 200	<b>18. CENTRIFUGE FEED PUMPS (VFD)</b> a. Number of Units • Active • Standby • Total b. Rated Capacity (gpm) • Thickening • Dewatering	1 (2) 0 1 (2) 90 50
<b>14. THICKENING / DEWATERING CENTRIFUGE</b> a. Type b. Number of Units c. Rated Capacity per Centrifuge (gpm) • Thickening • Dewatering	1 90 50	<b>19. THICKENED SLUDGE PUMPS (VFD)</b> a. Number of Units • Active • Standby • Total b. Rated Capacity, gpm	1 (2) 0 1 (2) 8.5 (17)
<b>15. STANDBY GENERATOR</b> a. Type b. Number of Units c. Rated Capacity, kW	Diesel 1 (2)		

The Arizona Department of Environmental Quality (ADEQ) requires that treatment plant process areas have a minimum setback from residential areas. A 750-foot setback is preferred, but a minimum 150-foot setback is allowed in conjunction with the use of odor control at the WWTP. Due to the site constraints, only the 150-foot minimum setback from residential areas for process units may be accommodated for the SaddleBrooke Ranch WWTP, and thus odor control must be implemented. Odor control would involve covering the headworks, and package plant. Foul air from the under the covers at the headworks and the package plant would be evacuated to a packaged odor control

system. The odor control system would consist of an exhaust fan blowing the evacuated foul air through a series of three chambers filled with plastic media. The media is wetted with a chemical solution that provides destruction of the odor causing compounds. A similar system is utilized at the Sun Lakes WWTP with great success.

#### **4.0 Permitting and Regulatory Requirements**

The SaddleBrooke Ranch WWTP will require the following permits: an Aquifer Protection Permit (APP), an NPDES Permit, a Reuse Permit and an Air Quality Permit.

The Aquifer Protection Permit Program, designed to protect the groundwater from degradation, is administered by the Arizona Department of Environmental Quality (ADEQ). Every WWTP is required to obtain an APP, and any discharging facility must comply with Aquifer Water Quality Standards (AWQS). A copy of the AWQS is provided in Appendix A.

A *Water Storage Facility permit* and a *Constructed Underground Storage and Recovery permit* will also be required for recharge to the aquifer. Both permits are administered by the Arizona Department of Water Resources (ADWR).

ADEQ is also responsible for the administration of the *Reuse Permit Program*. Effluent from the SaddleBrooke Ranch WWTP will be used for irrigation at the SaddleBrooke Ranch golf courses. Reuse water at the golf course will be stored in lined man-made lakes, and the golf courses will draw off the lakes as needed for turf irrigation. As such, a reuse permit is required for the facility. Appendix B contains a copy of the proposed Reclaimed Water Quality Standards.

As the golf course lakes (in which the reuse water is stored) are located in waters of the United States, a *National Pollutant Discharge Elimination System (NPDES) permit* is also required for the facility. The NPDES program, i.e., the point source discharge permit program, was implemented to protect waters of the United States from unauthorized point source discharges. Navigable Water Quality Standards associated with discharging to waters of the U.S. are provided in Appendix C.

A *Pinal County Air Quality Permit* will also be required. The Air Quality Permit involves an inventory of the fuel-burning equipment at the plant, and other potential sources of air pollution such as volatile organic chemicals (VOC's) that may be released from the wastewater. From the inventory a determination is made as to the pounds of air pollutants per year that can be expected from the WWTP. Carbon monoxide, nitrogen oxides, and particulate matter are usually the main pollutants of concern. If the loading of any of the pollutants of concern is near the limits set by Pinal County, then monitoring of emissions from the plant must be done. Monitoring for air pollutants is not typically necessary at a wastewater treatment plant in Pinal County.

The Arizona Department of Environmental Quality (ADEQ) reviews the design plans and specifications, engineering report, and the other required permits for compliance with ADEQ Bulletin No. 11. Bulletin No. 11 sets forth guidelines for the design of wastewater treatment systems in

Arizona. Every facility in the State of Arizona is required to receive an Approval to Construct from the State. An Approval of Construction permit requires review by ADEQ of the as-built (or finished construction drawings) to verify that the plant was constructed in accordance with the original design intent. An Operation and Maintenance (O&M) Manual for the facility is also required.

All wastewater treatment facilities are required to meet BADCT. BADCT is determined by ADEQ on a case-by-case basis, but generally requires nitrification/denitrification, advanced filtration and ultraviolet disinfection.

### **5.0 Preliminary Cost Estimate**

A preliminary engineer's estimate of construction costs for the plant expansion is presented in Table 6. The preliminary cost estimate has been prepared using an ENR 20-Cities Index of 6400. This represents estimated mid-point construction in 2001. If the construction schedule changes, an appropriate adjustment in the construction cost estimate is required.

The construction costs for the plant expansion were estimated using the following information:

- Equipment cost quotes from the existing SaddleBrooke WWTP
- Equipment cost quotes from manufacturer's representatives
- Installation factors

The estimate is based on a construction period of approximately 12 months.

### **6.0 Summary**

- Based on SaddleBrooke Ranch Development wastewater flow projections, the capacity of the plant will be 1.2 mgd at build out.
- The SaddleBrooke Ranch WWTP will be built in two 0.6 mgd stages to accommodate the increasing population through build out.
- The SaddleBrooke Ranch WWTP design will duplicate the configuration of the existing SaddleBrooke WWTP as much as possible to minimize the retraining of personnel, and to allow common stocking of replacement parts for equipment.
- Required permits include the Reuse permit, Aquifer Protection permit, NPDES permit and Air Quality permit, as well as Approval to and of Construction. Water Quality Standards associated with these permits are provided in the appendices.
- The total estimate of construction costs for the first phase of SaddleBrooke Ranch WWTP is \$4,205,000.

Table 6 Preliminary Cost Estimate - Design and Construction for Phase I and Phase II SaddleBrooke Ranch Wastewater Treatment Plant		
Item	Phase I Cost ENR = 6400	Phase II Cost ENR = 6800
1. Influent Pump Station	\$ 61,000	\$ 14,000
2. Headworks	\$ 59,000	-
3. Package Plant	\$ 607,000	\$ 645,000
4. Blowers	\$ 119,000	\$ 39,000
5. Automatic Backwash Filters	\$ 125,000	\$ 133,000
6. UV Disinfection System	\$ 253,000	\$ 269,000
7. Effluent Pump Station	\$ 105,000	\$ 32,000
8. Solids Handling Facility	\$ 383,000	\$ 22,000
9. Plant Control/Elec. Building	\$ 64,000	\$ 14,000
10. Standby Generator	\$ 79,000	\$ 84,000
11. Odor Control	\$ 562,000	\$ 238,000
12. Percolation Basins-recharge	\$ 217,000	\$ 231,000
Subtotal	\$ 2,634,000	\$ 1,721,000
Sitework/Piping (20%)	\$ 527,000	\$ 344,000
Instrumentation/Electrical (20%)	\$ 527,000	\$ 344,000
Engineering, Contractor's OH&P, Costs (25%)	\$ 659,000	\$ 430,000
<b>TOTAL</b>	\$ 4,347,000	\$ 2,839,000

MOUNTAIN PASS UTILITY COMPANY  
 WASTEWATER PLANT CONSTRUCTION SCHEDULE  
 YEARS 6 THROUGH 15

	<u>YEAR 6</u>	<u>YEAR 7</u>	<u>YEAR 8</u>	<u>YEAR 9</u>	<u>YEAR 10</u>	<u>YEAR 11</u>	<u>YEAR 12</u>	<u>YEAR 13</u>	<u>YEAR 14</u>	<u>YEAR 15</u>
SECOND PHASE MECHANICAL PLANT	0	0	0	0	2,839,000	0	0	0	0	0
COLLECTION SYSTEM	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
GENERATOR	30,000	0	0	0	0	0	0	0	0	0
VEHICLE	10,000	0	0	0	0	0	0	0	0	0
EQUIPMENT	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
LIFT STATIONS	0	0	250,000	0	0	250,000	0	0	0	0
EFFLUENT LINES	150,000	0	0	0	0	0	0	0	0	0
LAND	0	0	0	0	0	0	0	0	0	0
<b>TOTAL YEARS 6-15</b>					<b>6,579,000</b>					
<b>ADD: 10% FOR ENGINEERING AND PERMITTING</b>										<b>657,900</b>
<b>TOTAL CONSTRUCTION COSTS YEARS 6 THROUGH 15</b>										<b>7,236,900</b>
<b>ROUNDED</b>										<b>7,300,000</b>

## ATTACHMENT 4

MOUNTAIN PASS UTILITY COMPANY  
OPERATING REVENUES

NO. OF CUSTOMERS	200	400	600	800	1,000
MONTHLY RATE	49.25	49.25	49.25	49.25	49.25
ANNUAL REVENUE, MONTHLY FEE	118,193	236,385	354,578	472,770	590,963
EFFLUENT SALES	9,000,000	18,000,000	27,000,000	36,000,000	45,000,000
RATE PER 1,000 GALLONS	0.87	0.87	0.87	0.87	0.87
EFFLUENT REVENUE	7,830	15,660	23,490	31,320	39,150
ESTABLISHMENT FEE	6,000	6,000	6,000	6,000	6,000
TOTAL ANNUAL REVENUE	132,023	258,045	384,068	510,090	636,113

## ATTACHMENT 5

MOUNTAIN PASS UTILITY COMPANY  
OPERATING EXPENSES

<u>OPERATING EXPENSES</u>	<u>FIRST YEAR</u>	<u>SECOND YEAR</u>	<u>THIRD YEAR</u>	<u>FOURTH YEAR</u>	<u>FIFTH YEAR</u>
WAGES	30,000	30,000	30,000	30,000	30,000
PAYROLL BURDEN	7,500	7,500	7,500	7,500	7,500
DEPRECIATION	93,620	97,720	104,820	108,920	113,020
PERMITS	5,000	5,000	5,000	5,000	5,000
CHEMICALS	4,000	6,000	8,000	10,000	12,000
SUPPLIES	4,000	5,000	6,000	7,000	8,000
UTILITIES	7,000	10,000	15,000	22,000	32,000
REPAIRS	2,000	4,000	6,000	8,000	10,000
INSURANCE	2,000	2,000	2,000	2,000	2,000
PROPERTY TAXES	69,622	70,813	74,058	75,044	75,948
OFFICE EXPENSES	1,000	1,000	2,000	2,000	3,000
POSTAGE	1,000	1,000	2,000	3,000	4,000
TESTING	4,000	4,000	4,000	4,000	4,000
VEHICLES	1,000	1,000	1,000	1,000	1,000
LICENSES	2,000	2,000	2,000	2,000	2,000
ENGINEERING	2,000	2,000	2,000	2,000	2,000
LEGAL	3,000	3,000	3,000	3,000	3,000
SOLIDS HANDLING	2,000	4,000	6,000	8,000	10,000
CONTRACT LABOR	2,000	2,000	2,000	2,000	2,000
RENTALS	3,000	3,000	3,000	3,000	3,000
ADMINISTRATIVE SERVICES	36,000	36,000	36,000	36,000	36,000
RECHARGE SITE MAINT.	10,500	10,500	10,500	10,500	10,500
TOTAL	292,242	307,533	331,878	351,964	375,968

MOUNTAIN PASS UTILITY COMPANY  
 SEWER COLLECTION SYSTEM  
 RECENT QUANTITIES AND PRICES  
 AT SADDLEBROOKE

<u>UNIT</u>	<u>6" PIPE</u>	<u>8" PIPE</u>	<u>10" PIPE</u>	<u>12" PIPE</u>	<u>MANHOLES</u>	<u>CLEANOUTS</u>	<u># OF LOTS</u>	<u>COST</u>	<u>PER LOT</u>
14	0	8,847	0	0	29	2	176	252,052	1,432.11
22	0	1,091	0	0	5	0	29	41,238	1,422.00
23	0	6,589	0	0	21	1	140	204,764	1,462.60
25	0	6,761	0	0	23	1	96	113,613	1,183.47
30	0	2,324	0	0	10	1	57	70,822	1,242.49
33	0	2,286	0	0	7	1	57	71,900	1,261.40
<b>TOTAL</b>							<b>555</b>	<b>754,389</b>	<b>1,359.26</b>