

WASTEWATER UTILITY RATE STUDY



MAY 2011





May 13, 2011

2116.03

Board of Directors
Rio Alto Water District
22099 River View Drive
Cottonwood, CA 96022

PACE Engineering is pleased to present the final report entitled:

**WASTEWATER RATE STUDY
FOR THE
RIO ALTO WATER DISTRICT**

The Wastewater Rate Study contains the results of our review and analysis of the District's current wastewater service charges. This review was conducted to develop a rate increase program that would provide the revenues needed to allow the District to recover the total costs of operating and maintaining the Wastewater Enterprise only from existing and future wastewater customers. Costs reviewed included personnel, operation and maintenance, debt service, normal capital replacements, administration, and depreciation. The proposed rate structure was developed under the premise that the service charges would be equitable such that, as nearly as practical, each customer would pay their fair share of the costs of providing the services received.

PACE Engineering is very pleased to have participated in this project. We would like to thank District staff for their able assistance on current and future revenues and expenditures. Please call with any comments on this report.

Sincerely,

A handwritten signature in blue ink, appearing to read "T. Warnock", is written over a horizontal line.

Thomas W. Warnock
Principal Engineer

TWW

Enclosures

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WASTEWATER RATE STUDY

FOR

**RIO ALTO WATER DISTRICT
22099 RIVER VIEW DRIVE
COTTONWOOD, CA 96022**

JOB No. 2116.03

MAY 2011

PREPARED BY:



A handwritten signature in blue ink, appearing to read "Tom Warnock", written over the bottom right portion of the professional engineer seal.



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INTRODUCTION

The Rio Alto Water District (District) owns and operates both water and wastewater systems. Due to the circumstances involved with the bankruptcy of the initial developer of Lake California, the District had to complete and operate a very substantial wastewater system in order to serve its first customer. Thus, it was not possible to begin operation of the wastewater system as a self-sustaining enterprise. Historically, the water system has carried the wastewater system via yearly inter-district transfers between enterprise funds. Currently, there are 799 wastewater services and the District would like to consider transitioning the wastewater service charge rate structure to the point that the Wastewater Enterprise is self-sustaining.

PURPOSE AND SCOPE

PACE Engineering has been retained to review the current wastewater service charges and recommend feasible rate increases that cover the costs of operating and maintaining the wastewater system independent of the water system.

This report presents results of the analysis of the District's current wastewater service charges. This review was conducted to develop a rate increase program that would provide the revenues needed to allow the District to recover the total costs of operating and maintaining the Wastewater Enterprise only from existing and future wastewater customers. Costs reviewed included personnel, operation and maintenance, debt service, normal capital replacements to the system, administration, and depreciation.

The proposed rate structure was developed under the premise that the service charges would be equitable such that, as nearly as practical, each customer would pay their fair share of the costs of providing the services received.

The scope of this study includes a review and analysis of operation of the District's Wastewater Enterprise based upon historic expenditures and revenues, normal system capital replacement needs, and projected future revenue requirements.

The work performed included:

- Meeting with the District Manager to review the methodology to be used in development of the recommended rate structure for wastewater services.
- Reviewing historical account information and anticipated growth for the 5-year study period (Fiscal Year 2011/2012 through Fiscal Year 2015/2016).
- Developing a forecast of the annual revenue requirements.
- Recommending a rate structure that generates the level of revenue needed, with a distribution of those costs on an equitable basis between current and new customers as well as by class of customer.

STUDY ASSUMPTIONS

The following assumptions were used to analyze and project future costs, revenues, and wastewater rates for this study:

- Proposed wastewater service charges should be increased gradually such that they generate sufficient revenues to cover the costs of system operation, maintenance, and replacement of nominal capital improvements by FY 15/16.
- Historically, expansion of the wastewater system has been accomplished by private developers, individual reimbursement agreements, and District improvements. The District improvements have been funded by Capacity Expansion Fees levied on new connections. Revenues generated from the Capital Expansion Fees have been and will continue to be directed to funding future capital expansion improvements. These revenues will not be used for operating expenses.

- The District Wastewater Enterprise will eventually operate with a balanced budget and maintain its own reserve and replacement funds.

CURRENT WASTEWATER RATES

The current wastewater rate structure was adjusted for inflation on July 1, 2010. Because of the relatively small size of the system and lack of large commercial and industrial users, the current rate structure is strictly flow based without any adjustments for the organic strength of the wastewater. Over the years, the rate structure has evolved into two categories. Standard metered sewer users consist of services connected to the initial gravity sewer system and the Tract 1017 and 1018 gravity sewers. Extension metered sewer users consist of services connected to certain sewer extensions, including those with low pressure sewers.

The current rate structure for all sewer use classifications is shown in Table 1. Based upon the number of services in each service class in 2009, it is estimated that there were approximately 778 single-family equivalents in the standard metered sewer category and 36 single-family equivalents in the extension metered sewer category. Over the last 20 years, the wastewater rates have been increased five times as shown in Table 2. The District has historically increased its monthly user fee for a single-family connection by 3.95% per year for the last 19 years. The single-family equivalent rates for standard metered sewer category and the extension metered sewer category are currently \$21.92 per month, and \$25.87 per month, respectively.

**TABLE 1
RIO ALTO WATER DISTRICT
CURRENT WASTEWATER RATES**

SEWER SERVICE	MONTHLY SERVICE CHARGES
Standard Metered Services	
Single-Family	\$21.92 / House
Duplex	\$43.82 / Duplex
Triplex	\$65.74 / Triplex
Commercial	\$49.69 / Service Plus \$0.27 per 100 cubic feet over 1,000 cubic feet
Extension Metered Services	
Single-Family	\$25.87 / House
Duplex	\$51.74 / Duplex

**TABLE 2
RIO ALTO WATER DISTRICT
HISTORICAL WASTEWATER RATES**

YEAR	SINGLE-FAMILY MONTHLY RATES	
	STANDARD	EXTENSION
1991	\$10.50	\$12.50
1993	\$11.00	\$13.00
1996	\$14.30	\$16.90
2002	\$17.20	\$20.30
2008	\$21.50	\$25.38
2010	\$21.92	\$25.87

HISTORICAL GROWTH AND EXPENDITURES

WASTEWATER CUSTOMERS HISTORY

Historical wastewater connection data in two year increments is shown in Table 3. The values shown are for all use classifications. As one can see, the total number of services almost doubled between 2002 and 2006, but the rate of growth has dropped to less than 1% per year between 2008 and 2010. Due to the current economic climate, District staff has suggested that the addition of one residential unit in FY 11/12 and FY 12/13 and two residential units per year after that would be reasonable for projecting future wastewater use flows over the next five years. Currently, there are 873 vacant lots within the District. The District anticipates that these lots will eventually be built on and connected to the wastewater system, which will continue to add customers and increase revenue for wastewater operations.

Year	2002	2004	2006	2008	2010
Number of Single-Family Equivalent Connections					
Standard Services	373	593	745	775	778
Extension Services	20	29	35	36	36
TOTAL	393	622	780	811	814
% Change		58.3%	25.4%	4.0%	0.4%

WASTEWATER EXPENDITURES

Wastewater expenditures for operation and maintenance and replacement of capital projects are normally made from the Wastewater Enterprise fund. Table 4 is a summary of the Wastewater Enterprise expenditures from FY 04/05 through FY 09/10. It is interesting to note that the total expenditures increased by about 37% during the period from FY 04/05 to FY 07/08 following a period of rapid growth. Since then, the District has restricted capital improvements and trimmed its expenses, such that expenditures in FY 09/10 were about 8% less than the FY 07/08.

TABLE 4 RIO ALTO WATER DISTRICT HISTORICAL WASTEWATER ENTERPRISE EXPENDITURES						
	Expended FY 04/05	Expended FY 05/06	Expended FY 06/07	Expended FY 07/08	Expended FY 08/09	Expended FY 09/10
Administration	\$241,836	\$266,750	\$297,653	\$322,132	\$309,868	\$338,512
Less Unfunded Deprecation	-\$62,115	-\$70,543	-\$69,749	-\$74,978	-\$73,872	-\$71,917
Collection System	\$51,419	\$52,039	\$51,421	\$61,751	\$48,830	\$26,678
Treatment Plant	\$100,546	\$124,177	\$127,438	\$122,007	\$169,157	\$179,870
Capital Improvements	<u>\$46,131</u>	<u>\$93,735</u>	<u>\$69,538</u>	<u>\$87,015</u>	<u>\$81,295</u>	<u>\$5,032</u>
Fund Total	\$377,818	\$466,158	\$476,301	\$517,927	\$535,279	\$478,174
% Change		23%	2%	9%	3%	-11%
Includes depreciation expenses as per GASB 34 guidelines effective for this reporting year.						

The District does not currently fund depreciation. However, if an amount equal to the annual depreciation per the GASB 34 guidelines were put back into rehabilitation and replacing the system, it would go a long way toward maintaining a viable system.

WASTEWATER RATE DEVELOPMENT

CURRENT WASTEWATER RATE REVENUE REQUIREMENT

Analysis of the FY 10/11 wastewater rate revenue requirement is based on the District's FY 10/11 adopted budget. The annual Wastewater Enterprise rate revenue requirement is based on wastewater system operation and maintenance cost, plus replacement of nominal capital improvement needs, less other wastewater system revenues such as property taxes, interest earnings, and other income.

The District's FY 10/11 Wastewater Enterprise budget indicates annual wastewater expenditures of \$416,647 and the expected FY 10/11 Wastewater Enterprise revenues of \$337,817. Thus, even though the budgeted expenditures for FY 10/11 are about \$60,000 less than the actual FY 09/10 expenditures, the Wastewater Enterprise will still run a deficit of approximately \$78,830 in FY 10/11.

COST OF SERVICE ANALYSIS

There are a number of ways to allocate costs for rate setting purposes. Some are rather complex, requiring a significant effort to develop and to administer. Others are somewhat simpler to develop, understand, and administer. As discussed in the previous chapter, the District's current rate structure is essentially flow based and does not take waste strength into account. This is generally an acceptable approach for relatively small systems with minimal commercial and industrial users. Thus, there is no need to change the current method of cost allocation.

MULTI-YEAR FINANCIAL PLAN GUIDELINES

In order to develop recommendations regarding future rates, this Rate Study developed a multi-year financial plan for the Wastewater Enterprise, which considers both nominal capital replacement and operating programs.

Replacement Needs: Improvements in the replacement category include replacement and/or upgrading existing infrastructure to improve its effectiveness. Typical needs include equipment replacement and infiltration and inflow reduction work. Funding for these items typically increases with the age of the facilities so the projected amount for replacement capital needs has been gradually increased each year of the financial plan.

Operating Reserves: The Wastewater Enterprise has run a deficit since it began operation in 1973. Therefore, it does not have an operation reserve. Operation reserves ranging from 10 to 40% of annual operating costs are common for public wastewater utilities. We recommend that the District set a long-term goal of establishing a Wastewater Enterprise operating reserve equal to at least 25% of its annual operating and maintenance costs.

Financial Plan Assumptions: The following is a list of the primary assumptions used in developing the multi-year financial plan:

- Operation and maintenance costs will generally increase at 3% per year starting in FY 12/13. In addition, certain items will be adjusted based upon anticipated needs, such as increased maintenance and repair cost for the collection system and higher power and sampling costs for the treatment facility beginning in FY 11/12. Costs were adjusted down in FY 11/12 from the FY 10/11 budgeted amount.
- Residential connections will increase at a rate of one unit per year for FY 11/12 and FY 12/13 and two per year for FY 13/14 through FY 15/16.
- Replacement capital costs of \$5,000 per year beginning in FY 11/12 and increasing at \$5,000 per year after that will be programmed in the budget.
- Depreciation will remain unfunded.
- Property tax and sewer administration revenues are projected to remain constant through the 5-year planning period although they may vary somewhat.

A 5-year projection of the anticipated Wastewater Enterprise expenses is shown in Table 5.

Financial Plan Results: Table 6 presents a summary of the 5-year financial plan values based on proposed rate increases for each year. Table 6 includes the beginning cash balance, revenues, expenditures, and ending cash balance for the Wastewater Enterprise fund. As can be seen, the beginning funds available balance is zero for FY 10/11 and ending balance operating reserve remains negative from FY 10/11 through FY 12/13. Since the Water Enterprise Fund has historically covered annual wastewater deficits, the losses have not been accumulated in Table 6. Thus, it is not until FY 13/14 when there is a net positive ending balance of \$12,646, which equates to a 3.0% year ending operating reserve. Repayment of past transfers from water to wastewater enterprise funds was deemed infeasible given the proposed substantial wastewater rate increase.

PROPOSED RATES

The proposed wastewater rates shown in Table 7 will increase the monthly service charges 30% in FY 11/12, 20% in FY 12/13, 15% in FY 13/14, 8% in FY 14/15, and 5% in FY 15/16. With these increases implemented, the Wastewater Enterprise should be self-sustaining with an acceptable operating reserve.

A comparison of wastewater rates for neighboring wastewater systems is shown in Table 8 and on Figure 1. As one can see, the monthly service charges range from a low of \$21.92 at Rio Alto Water District to a high of \$60.50 at City of Auburn. The communities included in Table 8 typically have similar collection and advanced treatment systems.

**TABLE 5
RIO ALTO WATER DISTRICT
WASTEWATER ENTERPRISE FUND PROJECTED EXPENSES**

Item			Inflation Factor	Budgeted FY 10/11	Proposed FY 11/12	Projected FY 12/13	Projected FY 13/14	Projected FY 14/15	Projected FY 15/16
Sewer Personnel Costs									
1	5701-S-650	General Manager	3.0%	\$28,814	\$26,250	\$27,038	\$27,849	\$28,684	\$29,545
2	5701-S-651	Regulatory Supervisor	3.0%	\$26,238	\$19,710	\$20,301	\$20,910	\$21,538	\$22,184
3	5701-S-652	Field Sprvsr	3.0%	\$1,456	\$774	\$797	\$821	\$846	\$871
4	5701-S-653	Systems Operatr II	3.0%	\$1,480	\$1,004	\$1,034	\$1,065	\$1,097	\$1,130
5	5701-S-654	Sys Operator I	3.0%	\$1,294	\$838	\$863	\$889	\$916	\$943
6	5701-S-660	Secretary	3.0%	\$17,316	\$15,190	\$15,646	\$16,115	\$16,599	\$17,096
7	5701-S-661	Bookkeeper	3.0%	\$0	\$6,825	\$7,030	\$7,241	\$7,458	\$7,682
8	5701-S-662	Utility Person	3.0%	\$0	\$0	\$0	\$0	\$0	\$0
9	5701-S-665	Part-time Office Clerical	3.0%	\$6,654	\$0	\$0	\$0	\$0	\$0
10	5714-S-668	Workers Comp Ins.	3.0%	\$3,820	\$3,342	\$3,442	\$3,546	\$3,952	\$4,070
11	5714-S-669	FICA	3.0%	\$10,989	\$10,174	\$10,479	\$10,794	\$12,157	\$12,522
12	5714-S-670	PERS-Retirement	3.0%	\$26,940	\$28,330	\$29,180	\$30,055	\$33,669	\$34,679
13	5714-S-671	ACWA Health Ins.	3.0%	\$33,082	\$25,152	\$25,907	\$26,684	\$35,140	\$36,194
14	5714-S-673	Dental & Vision	3.0%	\$4,210	\$3,376	\$3,477	\$3,582	\$3,689	\$3,800
15	5714-S-672	SUI Expenses	3.0%	\$666	\$628	\$647	\$666	\$931	\$959
16	5714-S-674	Life Insurance	3.0%	\$264	\$252	\$260	\$267	\$275	\$284
17	5714-S-675	Retiree Health Benefits Expense	3.0%	\$0	\$8,100	\$8,343	\$8,593	\$8,851	\$9,117
Sewer Materials, Supplies & Services									
18	5720-S-680	Supplies	3.0%	\$1,200	\$1,295	\$1,334	\$1,374	\$1,415	\$1,458
19	5720-S-681	Postage	3.0%	\$2,000	\$1,750	\$1,803	\$1,857	\$1,912	\$1,970
20	5720-S-682	Printing	3.0%	\$500	\$525	\$541	\$557	\$574	\$591
21	5720-S-683	Employee Travel/Exp.	3.0%	\$800	\$1,000	\$1,030	\$1,061	\$1,293	\$1,332
22	5720-S-684	Meeting/Conferences	3.0%	\$600	\$840	\$865	\$891	\$1,118	\$1,151
23	5720-S-685	Education	3.0%	\$500	\$500	\$515	\$530	\$796	\$820
24	5720-S-686	Certif. Renewal	3.0%	\$430	\$430	\$443	\$456	\$470	\$484
25	5720-S-687	Public Relations	3.0%	\$1,000	\$500	\$515	\$530	\$546	\$563
26	5720-S-688	District Uniforms	3.0%	\$350	\$350	\$361	\$371	\$532	\$548
27	5721-S-690	Membership/Subscript.	3.0%	\$450	\$600	\$618	\$637	\$656	\$675
28	5721-S-691	Banking/Court Costs	3.0%	\$200	\$700	\$721	\$743	\$765	\$788
29	5721-S-692	Advertising	3.0%	\$0	\$0	\$0	\$0	\$0	\$0
30	5730-S-700	Insurance	3.0%	\$11,780	\$10,328	\$10,638	\$10,957	\$11,286	\$11,624
31	5770-S-705	Misc. Office Equip. Expensed	3.0%	\$200	\$525	\$541	\$557	\$574	\$591
32	5770-S-706	Maint. Office Equip	3.0%	\$400	\$455	\$469	\$483	\$497	\$512
33	5770-S-707	Maint. Office Bldng	3.0%	\$300	\$300	\$309	\$318	\$328	\$338
34	5770-S-708	Safety Supplies	3.0%	\$300	\$200	\$206	\$212	\$219	\$225
35	5770-S-709	Contracted Services	3.0%	\$2,076	\$1,500	\$1,545	\$1,591	\$1,639	\$1,688
36	5770-S-710	Engineering	3.0%	\$5,000	\$2,000	\$2,060	\$2,122	\$2,185	\$2,251
37	5781-S-715	Auto - Fuel	3.0%	\$2,200	\$2,800	\$2,884	\$2,971	\$3,060	\$3,151
38	5781-S-716	Auto - Maintenance	3.0%	\$800	\$875	\$901	\$928	\$956	\$985
39	5781-S-717	Auto - Repair	3.0%	\$500	\$1,500	\$1,545	\$1,591	\$1,639	\$1,688
40	5782-S-720	Utilities -Office	3.0%	\$1,500	\$1,155	\$1,190	\$1,225	\$1,262	\$1,300
41	5783-S-725	Telephone	3.0%	\$900	\$735	\$757	\$780	\$803	\$827
42	5783-S-726	Service Fee State	3.0%	\$5,000	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628
43	5783-S-727	Service Fee County	3.0%	\$2,250	\$2,500	\$2,575	\$2,652	\$2,732	\$2,814
44	5784-S-730	Auditor	3.0%	\$1,800	\$1,750	\$1,803	\$1,857	\$1,912	\$1,970
45	5784-S-731	Legal Counsel	3.0%	\$1,200	\$2,000	\$2,060	\$2,122	\$2,185	\$2,251
46	5784-S-732	Board Mtg Supplies	3.0%	\$75	\$100	\$103	\$106	\$109	\$113
47	5784-S-733	Director Fees	3.0%	\$1,800	\$1,575	\$1,622	\$1,671	\$1,721	\$1,773
48	5785-S-740	Directors Travel/Conf	3.0%	\$500	\$500	\$515	\$530	\$546	\$563
49	5786-S-741	Election	3.0%	\$0	\$0	\$0	\$0	\$0	\$0
50		Subtotal		\$209,834	\$194,233	\$200,060	\$206,062	\$224,997	\$231,747

**TABLE 5
RIO ALTO WATER DISTRICT
WASTEWATER ENTERPRISE FUND PROJECTED EXPENSES**

Item			Inflation Factor	Budgeted FY 10/11	Proposed FY 11/12	Projected FY 12/13	Projected FY 13/14	Projected FY 14/15	Projected FY 15/16
Wastewater Collection Personnel Costs									
51	5801-S-750	General Manager	3.0%	\$0	\$0	\$0	\$0	\$0	\$0
52	5801-S-751	Regulatory Supervisor	3.0%	\$1,968	\$3,285	\$3,384	\$3,485	\$3,590	\$3,697
53	5801-S-752	Operations Sprvr	3.0%	\$7,282	\$7,440	\$7,663	\$7,893	\$8,130	\$8,374
54	5801-S-753	Sys Operator II	3.0%	\$2,468	\$5,020	\$5,171	\$5,326	\$5,485	\$5,650
55	5801-S-754	Sys Operator I	3.0%	\$3,448	\$4,186	\$4,312	\$4,441	\$4,574	\$4,711
56	5801-S-760	Utility Person	3.0%	\$0	\$0	\$0	\$0	\$6,780	\$6,983
Wastewater Collection Materials, Supplies & Services									
57	5810-S-765	Utility Pump Stns 3,4,5	3.0%	\$1,800	\$1,500	\$1,545	\$1,591	\$1,639	\$1,688
58	5810-S-766	Utility-Pump Stn 2	3.0%	\$2,000	\$1,500	\$1,545	\$1,591	\$1,639	\$1,688
59	5810-S-767	Utility-Pump Stn 1	3.0%	\$6,000	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628
60	5810-S-768	General Supplies	3.0%	\$200	\$400	\$412	\$424	\$437	\$450
61	5810-S-769	Tools	3.0%	\$0	\$0	\$0	\$0	\$0	\$0
62	5810-S-770	Safety Equip Repair	3.0%	\$50	\$50	\$52	\$53	\$55	\$56
63	5811-S-775	Contracted Services	3.0%	\$2,000	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126
64	5820-S-780	Lift Stn Maint.	3.0%	\$300	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126
65	5820-S-782	Lift Stn Rpr	3.0%	\$1,000	\$3,000	\$3,090	\$3,183	\$3,278	\$3,377
66	5820-S-783	Sewer Line Maint.	3.0%	\$500	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126
67	5820-S-785	Sewer Line Repair	3.0%	\$2,500	\$3,000	\$3,090	\$3,183	\$3,278	\$3,377
68		Subtotal		\$31,516	\$37,381	\$38,502	\$39,658	\$47,627	\$49,056
Wastewater Treatment Personnel Costs									
69	5901-S-801	General Manager	3.0%	\$0	\$0	\$0	\$0	\$0	\$0
70	5901-S-802	Field Sprvr	3.0%	\$32,768	\$37,200	\$38,316	\$39,465	\$40,649	\$41,869
71	5901-S-805	Regulatory Supervisor	3.0%	\$13,119	\$6,570	\$6,767	\$6,970	\$7,179	\$7,395
72	5901-S-803	Sys Operator II	3.0%	\$33,560	\$25,101	\$25,854	\$26,630	\$27,429	\$28,251
73	5901-S-804	Sys Operator I	3.0%	\$29,310	\$20,932	\$21,560	\$22,207	\$22,873	\$23,559
74	5901-S-809	Utility Person	3.0%	\$1,640	\$0	\$0	\$0	\$8,420	\$8,673
Wastewater Treatment Materials, Supplies & Services									
75	5910-S-815	Utility - STP	3.0%	\$22,000	\$21,500	\$22,145	\$22,809	\$23,494	\$24,198
76	5910-S-816	General Supplies	3.0%	\$1,500	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126
77	5910-S-817	Tools	3.0%	\$200	\$200	\$206	\$212	\$219	\$225
78	5910-S-818	Chlorine/Bisulfite	3.0%	\$20,000	\$19,000	\$19,570	\$20,157	\$20,762	\$21,385
79	5910-S-820	Lab Supplies	3.0%	\$2,000	\$2,000	\$2,060	\$2,122	\$2,185	\$2,251
80	5911-S-825	Contracted Services	3.0%	\$1,000	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126
81	5920-S-830	Plant Maint.	3.0%	\$1,000	\$3,000	\$3,090	\$3,183	\$3,278	\$3,377
82	5920-S-849	Plant Repair	3.0%	\$3,000	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628
83	5920-S-850	WWTP Sampling & Testing	3.0%	\$0	\$18,000	\$18,540	\$19,096	\$19,669	\$20,259
84		Subtotal		\$161,097	\$160,503	\$165,318	\$170,278	\$183,806	\$189,320
85	Short-Lived Assets Replacment			\$5,000	\$5,000	\$10,000	\$15,000	\$20,000	\$25,000
86	Ongoing I & I Reduction Program			\$0	\$0	\$0	\$0	\$0	\$0
87	Total Capital Projects			\$5,000	\$5,000	\$10,000	\$15,000	\$20,000	\$25,000
88	OPEB Annual Contribution			\$9,200	\$9,200	\$9,200	\$9,200	\$9,200	\$9,200
89	Total Expenses			\$416,647	\$406,317	\$423,081	\$440,197	\$485,630	\$504,323

Note: 1. Values shown in red were manually adjusted where expenses are anticipated to increase or decrease above or below the inflation allowance amount.

**TABLE 6
RIO ALTO WATER DISTRICT
SUMMARY OF WASTEWATER ENTERPRISE FUND FINANCIAL PLAN**

Item	Budgeted (FY 10/11)	Proposed (FY 11/12)	Projected (FY 12/13)	Projected (FY 13/14)	Projected (FY 14/15)	Projected (FY 15/16)
WASTEWATER RATES USED						
1 Standard Single Family Monthly Service Charge	\$21.92	\$28.50	\$34.20	\$39.32	\$42.47	\$44.59
2 Extension Single Family Monthly Service Charge	\$25.87	\$33.63	\$40.36	\$46.41	\$50.12	\$52.63
3 Single Family Increase		\$6.58	\$5.70	\$5.13	\$3.15	\$2.12
ESTIMATED NUMBER OF SINGLE FAMILY CONNECTION EQUIVALENTS						
4 Standard Beginning of Year HEs	780	781	782	783	785	787
5 Standard Estimated Additional HEs due to Growth	1	1	1	2	2	2
6 Standard Estimated Year End HEs	781	782	783	785	787	789
7 Extension HEs	36	36	36	36	36	36
8 BEGINNING FUNDS AVAILABLE BALANCE	\$0	-\$78,830	-\$86,212	-\$55,368	\$12,646	\$66,311
REVENUES						
9 Metered Standard Sewer Fees (see Note 1)	\$201,326	\$259,384	\$311,659	\$359,324	\$389,058	\$409,549
10 Metered Extension Sewer Fees (see Note 1)	\$10,930	\$14,093	\$16,911	\$19,448	\$21,004	\$22,054
11 Sewer Availability Fees	\$61,636	\$61,533	\$61,430	\$61,224	\$61,018	\$60,812
12 Sewer Hookup Fees	\$4,290	\$4,290	\$4,290	\$8,580	\$8,580	\$8,580
13 RAID Property Taxes	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000
14 RAID Interest	\$75	\$75	\$75	\$75	\$75	\$75
15 Sewer Administration	\$7,560	\$7,560	\$7,560	\$7,560	\$7,560	\$7,560
16 Transfer from Capacity Expansion Fund	\$0	\$0	\$0	\$0	\$0	\$0
17 Total Revenue	\$337,817	\$398,935	\$453,925	\$508,210	\$539,295	\$560,630
EXPENDITURES						
18 Sewer Administration (see Note 2)	\$209,834	\$194,233	\$200,060	\$206,062	\$224,997	\$231,747
19 Wastewater Collection	\$31,516	\$37,381	\$38,502	\$39,658	\$47,627	\$49,056
20 Wastewater Treatment	\$161,097	\$160,503	\$165,318	\$170,278	\$183,806	\$189,320
21 Wastewater Capital Projects	\$5,000	\$5,000	\$10,000	\$15,000	\$20,000	\$25,000
22 Wastewater OPEB Liability Contributions	\$9,200	\$9,200	\$9,200	\$9,200	\$9,200	\$9,200
23 Total Expenditures	\$416,647	\$406,317	\$423,081	\$440,197	\$485,630	\$504,323
24 ENDING BALANCE/OPERATING RESERVE	-\$78,830	-\$86,212	-\$55,368	\$12,646	\$66,311	\$122,619
25 YEAR END OPERATING RESERVE (see Note 3)	-19.2%	-21.5%	-13.4%	3.0%	14.2%	25.6%
26 Annual Increase in Monthly User Charge		30%	20%	15%	8%	5%

Notes: 1. Annual sewer fee collection rate is assumed to be 98%.
2. Excluding unfunded depreciation expense.
3. Year end balance divided by Total Expenditures less Capital Projects.
4. OPEB = Other Post Employment Benefits
5. RAID = Rio Alto Improvement District

**TABLE 7
RIO ALTO WATER DISTRICT
RECOMMENDED MONTHLY WASTEWATER RATES**

Item	Existing FY 10/11	Proposed FY 11/12	Proposed FY 12/13	Proposed FY 13/14	Proposed FY 14/15	Proposed FY 15/16
Standard Metered Services						
Single Family Monthly Fee	\$21.92	\$28.50	\$34.20	\$39.32	\$42.47	\$44.59
Duplex Monthly Fee	\$43.83	\$56.99	\$68.39	\$78.65	\$84.94	\$89.19
Triplex Monthly Fee	\$65.74	\$85.49	\$102.59	\$117.97	\$127.41	\$133.78
Commerical Monthly Fee	\$49.69	\$64.69	\$77.62	\$89.27	\$96.41	\$101.23
Additional charge per 100 cf over 1000 cf	\$0.27	\$0.35	\$0.42	\$0.48	\$0.52	\$0.55
Extension Metered Services						
Single Family Monthly Fee	\$25.87	\$33.63	\$40.36	\$46.41	\$50.12	\$52.63
Duplex Monthly Fee	\$51.74	\$67.26	\$80.71	\$92.82	\$100.25	\$105.26
Annual Increases						
		30%	20%	15%	8%	5%

TABLE 8
RIO ALTO WATER DISTRICT
USER FEES FOR NEIGHBORING AND SIMILAR WASTEWATER SYSTEMS

COMMUNITY	EFFECTIVE DATE	AVERAGE DRY WEATHER FLOW	TYPE OF TREATMENT AND DISPOSAL	SINGLE FAMILY MONTHLY SERVICE CHARGE
City of Anderson (See Note 1)	2010	1.40	Advanced secondary with Sacramento River Discharge	\$24.96
	2011			\$25.48
City of Auburn	2010	1.10	Advanced secondary treatment	\$58.25
	2011			\$60.50
Cottonwood (CSA #17)	2010	0.40	Advanced secondary with Sacramento River Discharge	\$34.00
	Proposed 2011			\$39.00
	Proposed 2012			\$44.00
City of Dunsmuir	2007	0.26	Advanced secondary with Sacramento River Discharge	\$30.08
	7/1/2010			\$35.08
	Proposed 7/1/2011			\$40.08
City of Mt Shasta	2008	0.70	Advanced secondary with Sacramento River Discharge	\$23.95
	2007	0.40	Secondary treatment	\$47.00
City of Red Bluff	1997	1.70	Advanced secondary with Sacramento River Discharge	\$25.00
				Plus \$2.50 if in lift station zone
Rio Alto Water District	2010	0.13	Advanced secondary with Sacramento River Discharge	\$21.92
	Proposed FY 11/12			\$28.50
	Proposed FY 12/13			\$34.20
	Proposed FY 13/14			\$39.32
	Proposed FY 14/15			\$42.47
	Proposed FY 15/16			\$44.59
City of Shasta Lake	2010	0.80	Advanced secondary with Churn Creek River Discharge	\$48.78
	2010	????	????	\$51.58
City of Williams	2008	????	????	\$40.19
City of Willows	2010	0.71	Secondary treatment w/micro-screen	\$38.00

NOTES:

1. The City of Anderson charges a base rate plus an additional charge per 100 C.F. of water consumed.

SUMMARY OF FINDINGS AND RECOMMENDATIONS

FINDINGS

There are 799 wastewater service connections in the Rio Alto Water District. Wastewater revenues have never been equal to the wastewater expenditures due in part to a rate structure that was established that took into account the initial small number of sewer rate payers. For example, FY 10/11 Wastewater Enterprise budget indicates annual wastewater expenditures of \$416,647 and the expected FY 10/11 Wastewater Enterprise revenues of \$337,817. Thus, even though the budgeted expenditures for FY 10/11 are about \$60,000 less than the actual FY 09/10 expenditures, the Wastewater Enterprise will still run a deficit of approximately \$78,830 in FY 10/11.

The District has historically increased its monthly user fee for a single-family connection by 3.95% per year for the last 19 years. Now that the number of sewer rate payers has grown, the District would like to consider a sewer rate structure that meets expenditures.

RECOMMENDATIONS

It is recommended that the District implement a staged wastewater rate increase over the next 5 years. The recommended rate increases are shown in Table 7. The proposed wastewater rates will increase the typical monthly residential customer's bill from \$21.92 to \$44.59 by FY 15/16. Figure 1 provides a comparison of monthly wastewater bills for neighboring similar wastewater systems. The proposed rate increase will reposition the District from the least expensive rate to one that meets its projected expenditures with a 25.6% operating reserve.

SINGLE - FAMILY MONTHLY SEWER BILL COMPARISON

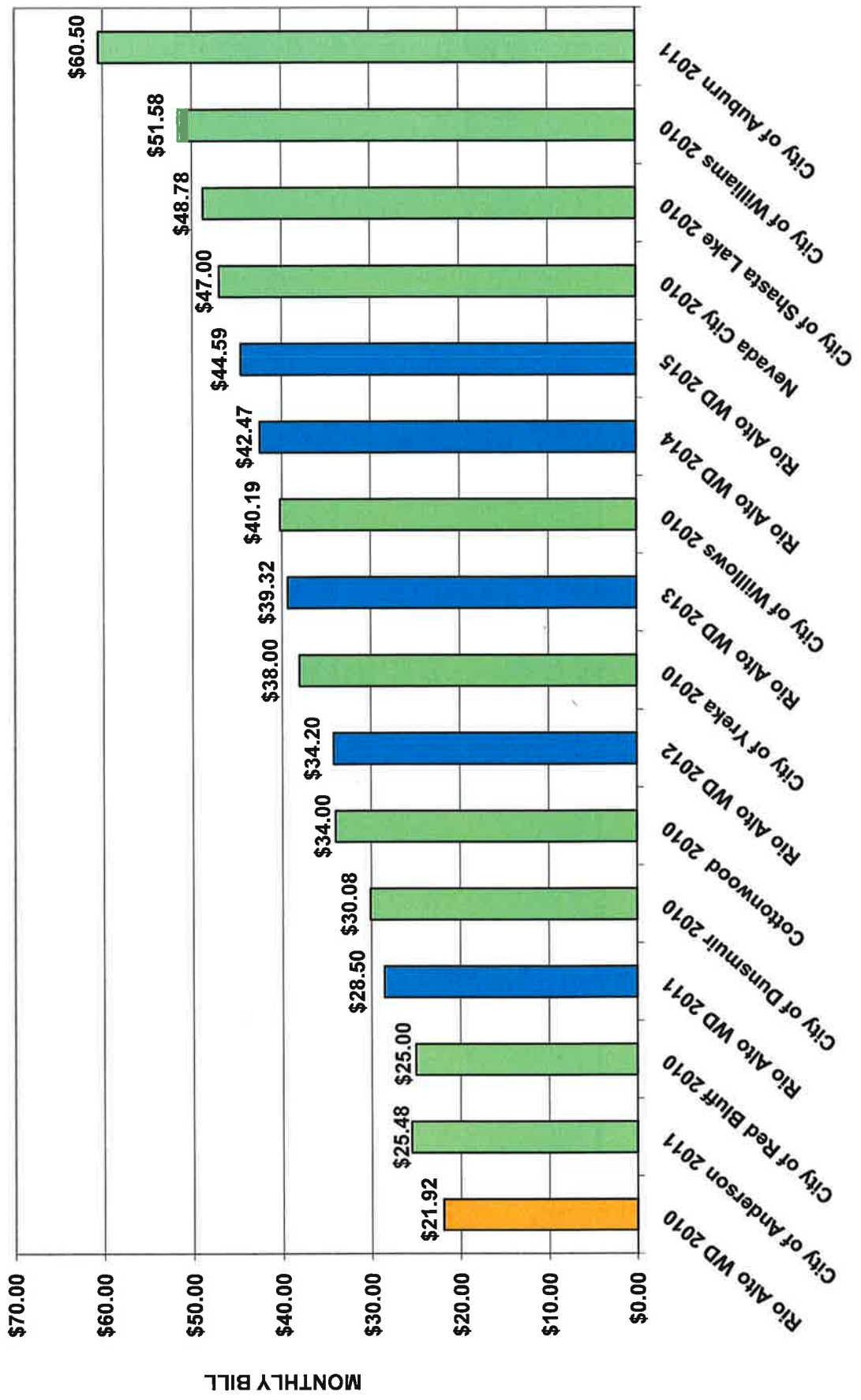


FIGURE 1

Experience has shown that it is much better to review and adjust rates on an annual basis than to wait long periods between rate adjustments, which generally results in very substantial increases. We recommend that the District seek legal counsel to implement the proposed rate increase in conformance with Proposition 218.

It is also recommended that the District consider the proposed funding set aside for miscellaneous capital replacement projects, such as the infiltration and inflow (I&I) reduction program. Funds should be accumulated in a specific reserve account so that meaningful projects can be periodically implemented to rehabilitate or replace the highest priority areas of the collection system. The proposed budget does not include any funding for I&I reduction, although we understand that the District has purchased equipment to begin addressing this problem.

Funding for the proposed Wastewater Treatment Plant and Constructed Wetlands Project as outlined in the Preliminary Engineering Report (PACE 2011) is not included in this Wastewater Rate Study. It is anticipated that this funding will be in the form of an assessment district that includes parcels currently connected and future parcels that can be accommodated within the limits of that project. A separate Assessment District Engineer's Report will be prepared once the project and funding source have been fully determined.