

Staff Report

February 6, 2007

TO: City Council

FROM: Bob Weir, Public Works Director
Sue Gedestad, Operations Administrator

SUBJECT: Sewer Rate Study: Sewer Rates and Connection Fees

Recommendation:

1. Receive the Sewer Rate Study;
2. Approve the use of the cost-of-service methodology to be used in calculating the monthly sewer charges for the upcoming year;
3. Support further review for a consumption based monthly fee for residential customers for possible implementation in FY 08/09.

Background:

The City commissioned Foresight Consulting Services to complete a sewer rate study. The study assesses the current rate structure and, as appropriate, offers alternatives. The rate study also incorporates payment for financing of the wastewater plant upgrade into the rates. Other issues reviewed in the report were volume based rates, low income rates, and fund balance policy.

The details of each recommendation will be presented at the council meeting however a summary of changes follows:

- Cost-of-service adjustments to individual rate classes that better reflect how costs should be allocated between and within customer classes, resulting in slight differences in rates for some sewer customer classes.
- Commercial customers with higher-strength wastewater would bear a greater share of the costs allocated among commercial customers.
- Rates for all customers would be based on the recent water consumption records and estimated flow received at the treatment plant.
- The rate study assumes a financial plan that includes issuance of two series of revenue bonds in 2007 and 2009 to fund design services for, as well as the construction of the treatment plant improvements.
- Higher connection fees that better reflect future customers' use of available capacity in the City's collection and treatment system, including the estimated \$140 million of pending improvements.

Consumption (Volume) Based Rates for Residential Customers

Currently winter water consumption is a component in calculating commercial sewer rates. The winter water consumption is used as the best available measure of domestic non-irrigation water use. Both the Natural Resources and Senior commissions have expressed their support for water consumption as a basis for residential customer rates. Commission support is based on improved equity and the ability for customers to influence what their cost would be. The Natural Resources Commission also expressed their support because of the side benefit of potential water conservation.

There is more assessment to be done, in particular, the base rate for sewer to which the volume charge would be added. Staff recommends continued review and development of a volume sewer rate. See attachment for 10 year projection of residential flat rates from the Sewer Rate study and also for comparison, 2 charts showing a conceptual volume based rate. The additional analysis is estimated to be completed by December 2007.

Other Review

Both the Senior and Natural Resources Commissions reviewed rates and continue to support the review of volume based rates. In addition, the Natural Resources Commission supported the adjustment in the rates resulting from the cost of service methodology and also concurred that a flat rate for FY 07/08 be continued but that a consumption based rate be assessed for subsequent years.

Low Income Subsidy

As verified by the Sewer Rate study, Proposition 218 regulations do not allow one sewer customer to subsidize another. This means that any refund/subsidy would have to be funded by other funding, the most likely being General Fund. The City does have two other subsidies, Parcel Tax and Open Space tax refunds. These are reimbursements for a portion of those two taxes and are paid to property owners who meet the income requirements. In FY05/06 41 refunds were issued for a total of \$2,603.50 and in FY 04/05 47 refunds were issued for a total of \$2,082.50. Utility reimbursement programs found in other agencies are similar in that property owners qualify, as opposed to renters.

Connection Fee

Approval of the connection fee will come back to the City Council at a later date.

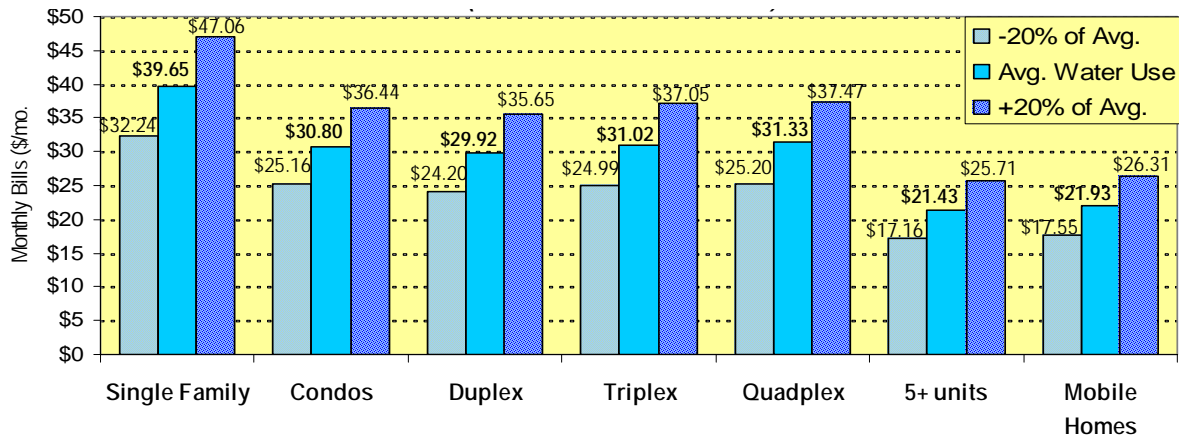
**Projected Residential Sewer Flat Rates
As Projected in the Sewer Rate Study**

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Single Family	35.63	39.65	41.64	44.13	47.66	52.91	60.31	66.95	68.29	69.65
Single Family Condo	27.46	30.80	32.34	34.28	37.02	41.09	46.84	52.00	53.04	54.10
Duplex	27.46	29.92	31.42	33.30	35.97	39.92	45.51	50.52	51.53	52.56
Triplex	27.46	31.02	32.57	34.52	37.29	41.39	47.18	52.37	53.42	54.49
Quadplex	27.46	31.33	32.90	34.87	37.66	41.81	47.66	52.90	53.96	55.04
Multi-family 5+	24.80	21.43	22.50	23.85	25.76	28.60	32.00	36.19	36.91	37.65
Mobile Homes	24.80	21.93	23.02	24.41	26.36	29.26	33.35	37.02	37.76	38.52

Conceptual View of Volume Based Sewer Rates

Rate for Customers using 20% more and 20% less than average

Figure 10



Average Monthly Winter Water Consumption (in CCF*)	Monthly Payment	# of Residential Utility Accounts Effected
0.0	\$ 2.60	813
2.5	\$ 13.70	1833
5.0	\$ 24.80	2702
7.5	\$ 35.90	2455
10.0	\$ 47.00	1848
12.5	\$ 58.10	1334
15.0	\$ 69.20	804
17.5	\$ 80.30	554
20.0	\$ 91.40	380
22.5	\$ 102.50	252
25.0	\$ 113.60	210
27.5	\$ 124.70	113
30.0	\$ 135.80	111
32.5	\$ 146.90	72
35.0	\$ 158.00	61
37.5	\$ 169.10	39
40.0	\$ 180.20	32
42.5	\$ 191.30	26
45.0	\$ 202.40	20
47.5	\$ 213.50	15
50.0	\$ 224.60	89
75.0	\$ 335.60	23
100.0	\$ 446.60	17

*748 gallons = 1 CCF (hundred cubic feet)

City of Davis, California

23 Russell Blvd. - Davis, CA 95616



Draft Report

Rate Study: Sewer Rates & Connection Fees

Prepared for:

City of Davis

Prepared by:



December 18, 2006

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Rate Study: Sewer Rates & Connection Fees

1. INTRODUCTION AND SUMMARY

The City of Davis is in a transition period where it is planning to implement major improvements to its wastewater treatment plant as mandated by the State Water Resources Control Board. These improvements are currently estimated to cost about \$140 million. According to the City's design engineers, Carollo & Associates, these improvements are solely for the purpose of meeting new, higher discharge requirements of the existing system and would provide no additional capacity for future customers.

In an effort to begin funding these significant capital costs, the City increased its overall sewer rates earlier this year by approximately 20%; however, the City needs to continue evaluating its sewer rates in an effort to firm up its financial plans for the next several years. Part of this planning effort includes incorporating the most recent cost estimates and projected construction schedule, as well as issuing new revenue bonds shortly, in order to begin actual construction of these improvements. Additionally, recent court rulings¹ require sewer utilities to demonstrate that new rates are proportional to the benefits customers receive.

To address these concerns, the City retained Foresight Consulting to conduct a rate study to evaluate the cost-of-service of the City's sewer rates and re-examine the sewer connection fees. The rate study that Foresight has prepared for the City recommends changes to the City's sewer rates that would meet the equity requirements of Prop 218, significantly increase connection fees for new customers based on their use of available capacity in the existing system, and provide specific financial plans for funding the treatment plant improvements. These changes include:

- Cost-of-service adjustments to individual rate classes that better reflect how costs should be allocated between and within customer classes, resulting in slight differences in rates for some sewer customer classes.
- Commercial customers with higher-strength wastewater would bear a greater share of the costs allocated to commercial customers.
- Rates for all customers would be based on the recent water consumption records and estimated effluent (influent, flow?) received at the treatment plant.
- A financial plan that includes issuance of two series of revenue bonds in 2007 and 2009 to fund design services for, as well as the construction of the treatment plant improvements.
- Higher connection fees that better reflect future customers' use of available capacity in the City's collection and treatment system, including the \$140 million of improvements.

Although details are provided later in Section 4.3, the recommended residential sewer rates would increase by approximately 9 to 14 percent (e.g., single-family rates increase

¹ The Big Horn decision in essence requires sewer utilities to comply with the requirements of Prop 218, which include verifying rates are proportional to benefits received and requires a customer notification and balloting process to approve rate increases.

from \$35.63 to \$39.65, or 11%), while rates for apartments and mobile homes would decrease by 12 to 14 percent (e.g., apartments drop from \$24.80 to \$21.43, or 13.6%). Recommended commercial rate increases are similar to those for single-family customers, although increases are smaller for lower-strength customers like commercial retail and offices, and larger for higher-strength customers like restaurants.

2. OVERVIEW OF THE CITY’S SEWER SYSTEM

Before discussing the methodology used in the sewer rate analysis and the results, it is helpful to understand some of the characteristics of the City’s sewer system that affect sewer rates. These include the number of accounts in each customer class and the water consumption factors used in calculating future rates. The following is a brief summary of these factors.

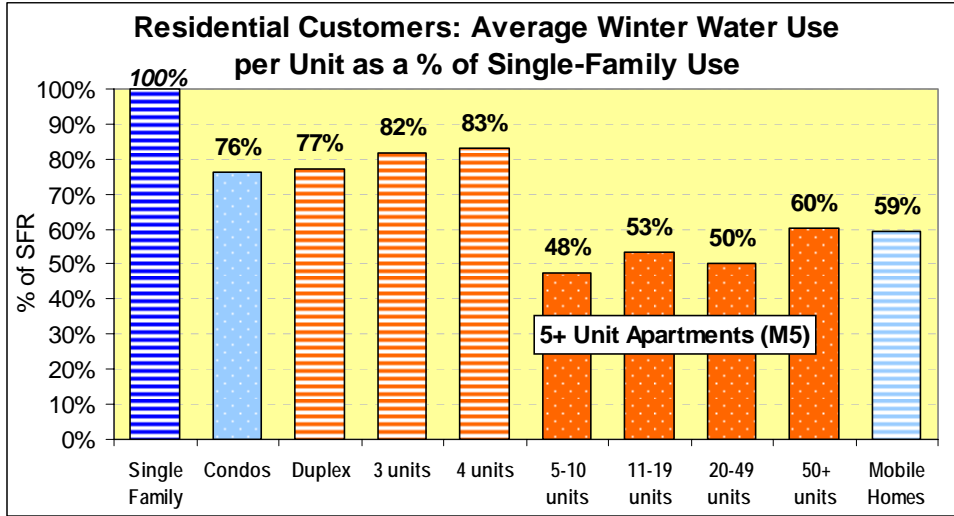
The first characteristic of the City’s sewer system is that it is dominated by the residential class in terms of number of customers and the wastewater effluent they generate. The following table illustrates this point.

Table 1

Current Sewer Customers & Typical Effluent Strength				
<i>City of Davis</i>				
Customer Class	Billing Units	WWTP	Typical Effluent Strength	
		Effluent	BOD	TSS
		<i>MGD</i>	<i>(mg/l)</i>	<i>(mg/l)</i>
Residential				
Single Family	12,248	3.12	162	194
Single-Family Condo	1,289	0.25	162	194
M2 Duplex	1,056	0.21	162	194
M3 Triplex	183	0.04	162	194
M4 Quadplex	352	0.07	162	194
M5 5 + units	10,045	1.48	162	194
MH Mobile Homes	<u>559</u>	<u>0.08</u>	<u>162</u>	<u>194</u>
Subtotal	25,732	5.25	--	--
Commercial				
C1 Office/Retail	231	0.29	105	69
C2 Laundry	3	0.01	122	95
C3 All Other	164	0.23	105	69
C4 Conval. Hospital	3	0.06	203	86
C5 Auto/Service Station	49	0.08	146	242
C6 Restaurants	80	0.26	810	519
C7 Industrial	<u>2</u>	<u>0.00</u>	<i>(Varies)</i>	<i>(Varies)</i>
Subtotal	532	0.93	--	--
Total	26,264	6.18	--	--

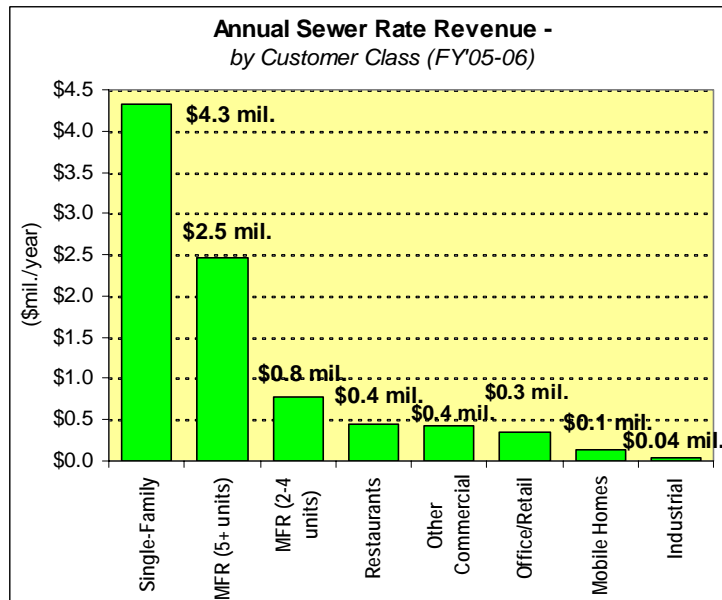
Figure 1 compares the relative winter water consumption for residential classes of customers, which is used to estimate their effluent generation that must be treated at the wastewater treatment facilities. Winter water consumption is the average of November through February’s water consumption.

Figure 1



As would be expected, the City’s residential sewer customers also generate the majority of service charge revenue, as shown in Figure 2. Single- and multi-family customers accounted for approximately 86% of the total rate revenue in Fiscal Year 2005-06.

Figure 2



3. METHODOLOGY OF THE RATE STUDY

The cost-of-service rate methodology has three basic components. The fundamental role of each of these components in the analysis is summarized as follows:

Revenue Requirements – Determines the total rate-generated revenue needed to fully fund the normal annual operating, maintenance, and capital costs (or the full cost-of-service). However, the actual annual rate increases are determined in the financial plan, which addresses additional financial issues such as longer-term funding of capital improvements and reserve fund levels.

Financial Plans – Evaluate the larger financial picture, such as how the City should best fund capital improvements and what level of reserve fund balances should be maintained. While including the annual revenue requirements, the financial plan also addresses these other objectives in determining the overall annual rate increases.

Cost-of-Service Analysis – Evaluates how the revenue requirements are allocated within and between customer classes to ensure rates are equitable. These results are reflected in the cost-of-service rate alternatives.

Each component is addressed in the analysis as follows.

Revenue Requirements – In estimating the projected revenue requirements, Foresight evaluated the City’s current budget and planned capital improvements along with other factors such as inflation and the projected growth in customer accounts.

Financial Plans – The analysis of the financial plans included a baseline scenario plus two alternative financial plans. The most significant differences in these plans are:

<u>Financial Plan</u>	<u>Assumptions</u>		
	<u>Rate Increases</u>	<u>CIP Funding</u>	<u>Reserve Fund Levels</u>
Baseline – Status Quo (Not Recommended)	None	Includes add'l. debt service to fund WWTP improvements	As a result of no rate increases, reserve deficits reach \$30 mil.
#1 – Levelized Rate Increases (Recommended)	Gradual increases to fund WWTP improvements; avoids rate shock	Includes add'l. debt service to fund WWTP improvements	Maintains positive levels and meets bond coverage requirements
#2 – Rate Increases to Meet Coverage (Not Recommended)	Delayed increases as long as possible – only meets bond coverage req't's., results in rate shock	Includes add'l. debt service to fund WWTP improvements	(Similar to Financial Plan #1)

In preparing the rate alternatives and financial projections in this rate study, we have assumed Financial Plan #1, with more gradual rate increases, will be adopted for a number of reasons explained briefly in Section 3 and in more detail in Section 5.

Cost-of-Service Analysis – The cost-of-service analysis included three rate alternatives:

<u>Rate Alternative</u>	<u>Assumptions</u>		
	<u>Rate Structure</u>	<u>Include COS Adjustments?</u>	<u>Level of Water Conservation</u>
Across-the-Board Increases (ATB) <i>(Not Recommended)</i>	Same as current	No	Moderate – Commercial rates based on water consumption
#1 – Cost-of-Service Rates (COS)	Same as current but with COS changes between classes	Yes	Moderate – Commercial rates based on water consumption
#2 – COS Rates, Volume-based Residential Rates	Same as COS but winter water use is basis for residential rates	Yes	Above Moderate – SFR customers using more water pay more

The merits of each of these rate alternatives are different, offering certain advantages and disadvantages. The table below summarizes these differences.

	<u>Advantages</u>	<u>Disadvantages</u>
ATB	<ul style="list-style-type: none"> No changes – customers are familiar with current rate structure SFR customers know what their rates are every month 	<ul style="list-style-type: none"> Not equitable based on cost-of-service Does not conform to Prop 218
#1 – COS	<ul style="list-style-type: none"> More equitable Updates effluent flow & loadings used in rates Conforms to Prop 218 	<ul style="list-style-type: none"> Changes current rates – some customers pay more, others pay less than before
#2 – COS/Volume-based Residential Rates	<ul style="list-style-type: none"> More equitable Updates effluent flow & loadings used in rates Conforms to Prop 218 Offers lower bills to residential customers who use less water 	<ul style="list-style-type: none"> Maximum changes to current rates – winter water use would be additional factor for differentiating SFR rates

A more detailed discussion of the sewer rate methodology is provided in Appendix A and documentation of the cost-of-service analysis is provided in Appendix C.

4. RESULTS OF THE SEWER RATE ANALYSIS

The results of the rate analysis are presented below and are organized into four areas:

- Annual revenue requirements
- Percentage increases in rate revenue needed
- Projected rates increases
- Rate Structure and Life-Line Rates
- Reserve fund balances

4.1 – Annual Revenue Requirements

A summary of revenue requirements is shown in Table 2 on the next page. These projections are based on current budgets, input from City staff regarding future conditions and capital improvement projects. They also reflect the City’s plans to construct major improvements to the existing wastewater treatment plant. More detailed budget projections are shown in Appendix B.

Figure 3 compares annual operating costs and capital funding costs. This figure illustrates the gradual rate at which operating costs are expected to increase in contrast to the projected capital improvement costs for the wastewater treatment plant needed to meet State discharge requirements. Funding for these capital costs is a major consideration in developing the financial plan and the level of annual rate increases that will be needed.

Figure 3

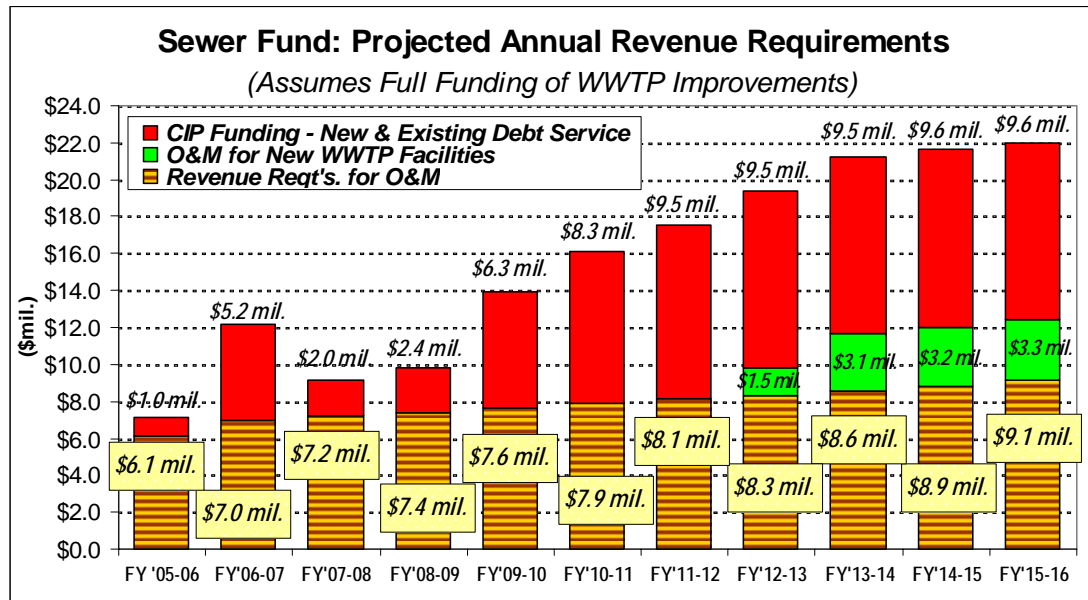


Table 2

Summary of Projected Sewer Utility's Budget and Baseline Net Revenue Requirements											
<i>City of Davis</i>											
	<i>Adjusted (a)</i>				<i>Projected Budgets</i>						
Maintenance & Operations	<i>FY '05-06</i>	<i>FY '06-07</i>	<i>FY '07-08</i>	<i>FY '08-09</i>	<i>FY '09-10</i>	<i>FY '10-11</i>	<i>FY '11-12</i>	<i>FY '12-13</i>	<i>FY '13-14</i>	<i>FY '14-15</i>	<i>FY '15-16</i>
Total Collection	1,131,757	1,251,150	1,288,684	1,327,345	1,367,165	1,408,180	1,450,426	1,493,938	1,538,756	1,584,919	1,632,467
Total WWTP	4,213,274	4,507,958	4,643,197	4,782,493	4,925,968	5,073,747	5,225,959	5,382,738	5,544,220	5,710,547	5,881,863
Additional WWTP O&M (b)	-	-	-	-	-	-	-	1,510,000	3,100,000	3,190,000	3,290,000
Total WW Pre-Treatment	239,723	376,012	387,292	398,911	410,878	423,205	435,901	448,978	462,447	476,321	490,610
Total Inter-Dept. Charges	472,223	526,051	541,833	558,088	574,830	592,075	609,837	628,132	646,976	666,386	686,377
Total Sewer Division O&M	6,056,977	6,661,171	6,861,006	7,066,836	7,278,841	7,497,207	7,722,123	9,463,787	11,292,400	11,628,172	11,981,317
Other Division (531) Expenses (c)	72,342	325,788	335,562	345,628	355,997	366,677	377,678	389,008	400,678	412,698	425,079
Existing Debt Service (d)	586,091	591,669	597,482	603,545	609,873	616,477	623,379	630,585	638,110	645,963	654,149
Less: Non Rate Revenue	-	-	-	-	-	-	-	-	-	-	-
Total Before Capital Repl. Transfers	6,715,410	7,578,628	7,794,050	8,016,010	8,244,712	8,480,361	8,723,180	10,483,380	12,331,189	12,686,834	13,060,546
Transfers to Replacement Fund (532)	426,198	4,563,326	876,000	902,000	929,000	957,000	986,000	1,016,000	1,046,000	1,077,000	1,109,000
Total Revenue Requirements (e)	\$7,141,608	\$12,141,954	\$8,670,050	\$8,918,010	\$9,173,712	\$9,437,361	\$9,709,180	\$11,499,380	\$13,377,189	\$13,763,834	\$14,169,546
	<i>Expenditure Inflation Rate</i>		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

a. From Budget Preparation Worksheet, prepared 2/10/06.

b. Based on Carollo estimate of \$2.45 mil. annual O&M for \$140 mil. new plant facilities plus 3% inflation from 2005, but only 50% for first year. Construction schedule is per Carollo's email to Keith Smith (9-15-06).

Carollo's proposed construction schedule:

3%	7%	10%	25%	35%	20%	0%	0%	0%
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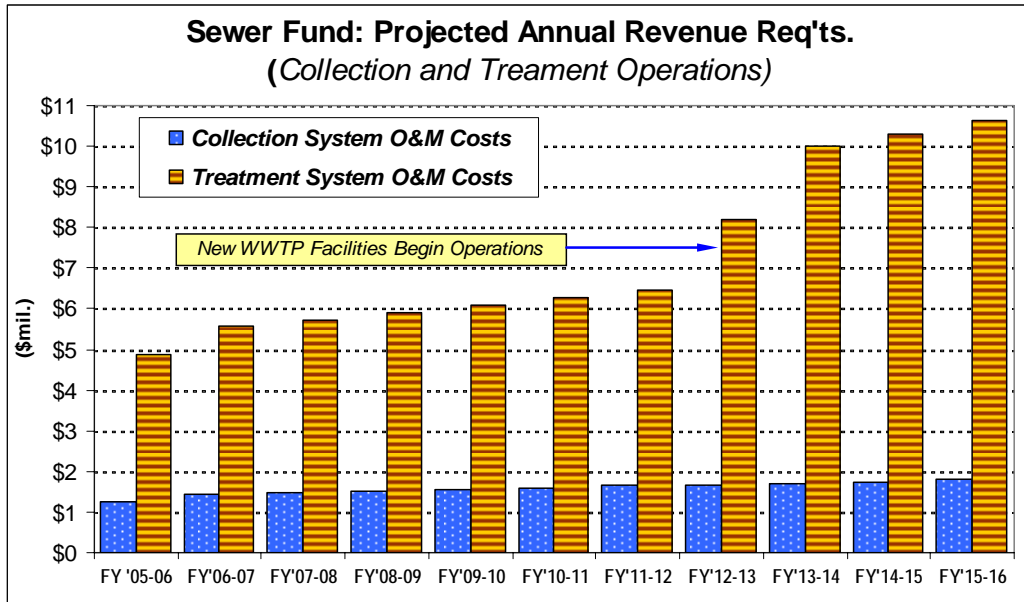
c. Expenses not directly shown in the Fund 531 Budget, including promotions (1160), utility accounting (2850), CIP Admin (8110), and WWTP facility planning & construction (8119).

d. Includes portions of existing debt service (SRF loans, WWTP Expansion bond, and Interfund loan) that are allocated to existing customers per City documents.

e. Total Revenue Requirements after transfers to Capital Replacement Fund Reserves (Fund 532)

As shown in Figure 4, costs related to operation and maintenance of the wastewater treatment plant make up the vast majority of annual O&M costs. Up until the new WWTP facilities being operations, treatment plant O&M accounts for about 80% of the annual O&M budget, and increases to 86% once the new facilities begin operating.

Figure 4



The Table 3 summarizes the key assumption used in projecting sewer system revenue requirements.

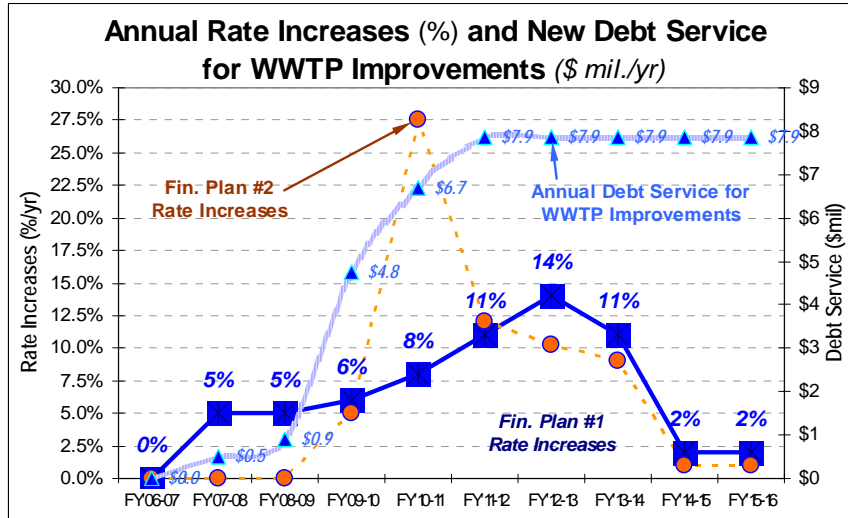
Table 3

Assumptions Used in Budget Projections	
City of Davis	
Assumption	Explanation
1. Population Growth Rate = 1%	Represents a reduction of recent growth rates, which have averaged 1.4%/year since 2000
2. Expense Inflation Rate = 3%	Includes general inflation, labor rates, etc.
3. WWTP Improvements will be Constructed as planned	Construction as projected by City's Engineering Design Consultants (Carollo Engineers)
4. WWTP Improvements to be Funded by Issuing New Revenue Bonds	New Bonds in 2007 and 2009 as estimated by City's Financial Advisor (Northcross, Hill & Ach, LLC.)
5. Reserve Fund Levels Will Increase	Necessary due to bond coverage requirements and prudent financial management practices

4.2 – Overall Rate Increases

The rate increases needed to meet the annual funding levels recommended in Financial Plan #1 are summarized in Figure 5 along with the Financial Plan #2 and the projected annual debt service the City will incur once the new revenue bonds are issued. The rate increases shown in here reflect the differences in the two financial plans; how those increases translate to rates by customer class depends on the rate alternative used.

Figure 5



4.3 – Projected Sewer Rates

While Figure 5 summarized the annual increases in terms of total revenue requirements, this section summarizes the actual projected rates for residential, commercial, and industrial customers.

Figure 6 below shows the possible combinations of rate and financial plan alternatives. In order to keep this section as concise as possible, we have only shown the projected rates for the recommended plan of action (i.e., Financial Plan #1 and Rate Alternative #1), plus the volume-based residential rates for Rate Alternative #2 (commercial rates are the same for Rate Alternatives #1 and #2).

Figure 6 – Possible Combinations of Rate and Financial Plan Alternatives

	Rate Alternative #1 - COS Rates with the Current Rate Structure (Residential Flat Rates, Commercial Volume-Based Rates)	Rate Alternative #2 - COS Rates with Volume-Based Rates for Both Residential and Commercial Customers
Financial Plan #1 - Gradual Rate Increases	<u>Recommended Rate Scenario:</u> Rate Alternative #1 & Financial Plan #1 (All Rates Shown)	Rate Alternative #2 & Financial Plan #1 (Comparison of Selected Residential Rates Only)
Financial Plan #2 - Delayed Rate Increases	Rate Alternative #1 & Financial Plan #2 <i>(See Appendix D.5 for Rates)</i>	Rate Alternative #2 & Financial Plan #2 <i>(See Appendix D.5 for Rates)</i>

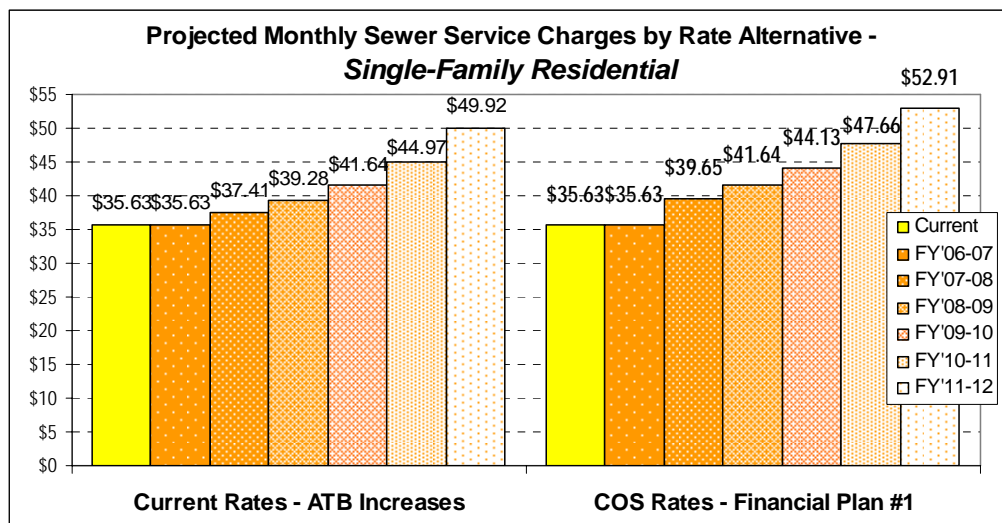
Residential Rates – Table 4 summarizes projected single- and multi-family rates for Rate Alternative #1, which are COS adjustments to the current rate structure. Figure 7 then compares the projected sewer bills for single-family customers.

Table 4

Projected Residential Rates and Percent Increases		Financial Plan #1 and Rate Alternative #1 - COS Flat Mo. Rates						
<i>City of Davis</i>								
Single-Family Rates		Current	FY'06-07	FY'07-08	FY'08-09	FY'09-10	FY'10-11	FY'11-12
Current Rates - ATB Increases		\$35.63	\$35.63	\$37.41	\$39.28	\$41.64	\$44.97	\$49.92
COS Rates - Financial Plan #1		\$35.63	\$35.63	\$39.65	\$41.64	\$44.13	\$47.66	\$52.91
% Increases vs. ATB Rates		--	0.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Multi-Family Rates (a)		Current	FY'06-07	FY'07-08	FY'08-09	FY'09-10	FY'10-11	FY'11-12
Current Rates - ATB Increases		\$24.80	\$24.80	\$26.04	\$27.34	\$28.98	\$31.30	\$34.74
COS Rates - Financial Plan #1		\$24.80	\$24.80	\$21.43	\$22.50	\$23.85	\$25.76	\$28.60
% Increases vs. ATB Rates		--	0.0%	-17.7%	-17.7%	-17.7%	-17.7%	-17.7%
Financial Plan #1 Rate Increase		--	0.0%	5.0%	5.0%	6.0%	8.0%	11.0%

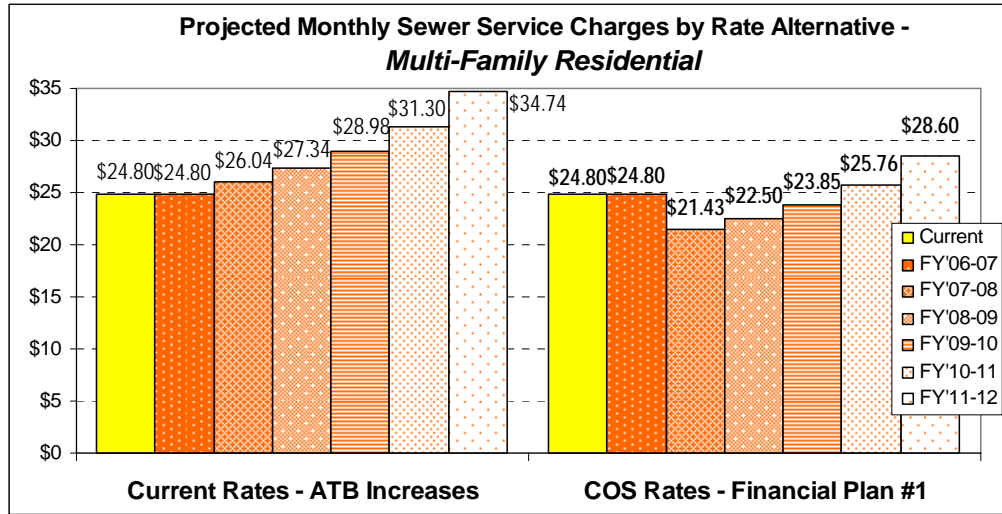
a. Apartments with 5 or more units.

Figure 7



As seen in Figure 7, the projected cost-of-service rates for single-family customers in FY'07-08 are higher (by 6% as shown in Table 4) than the current rates with Across-the-Board increases. Figure 8 shows the same differences for multi-family/apartment customers (a 17.7% decrease as shown in Table 4).

Figure 8



Residential rates in Rate Alternative #2 use a combination of a small fixed charge plus a volume-based rate similar to commercial rates. Because of this consumption-based rate component, residential monthly service charges would vary from customer to customer depending on their actual winter water use. Therefore, the “typical” monthly residential bills, or those based on the *average* winter consumption, would be the same as for Rate Alternative #1 as previously shown in Table 4. Therefore, to illustrate the difference that could occur in rates for individual customers, Figure 9 compares residential rates for average as well as different consumption levels ranging from 20% to 200% of average.

Figure 9

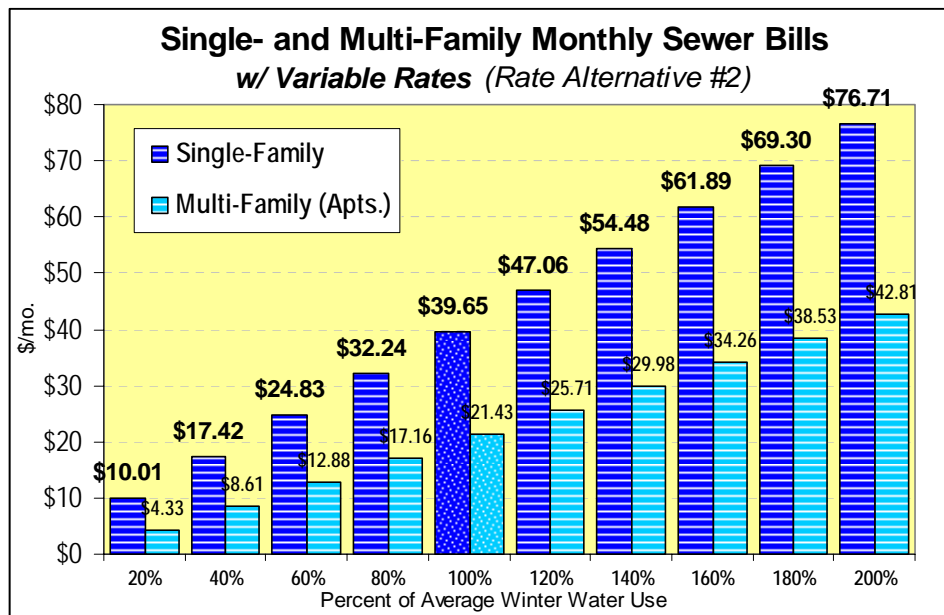


Figure 10 compares Rate Alternative #2 monthly rates for all residential classes with average winter water use, 20% less than average, and 20% above the average.

Figure 10

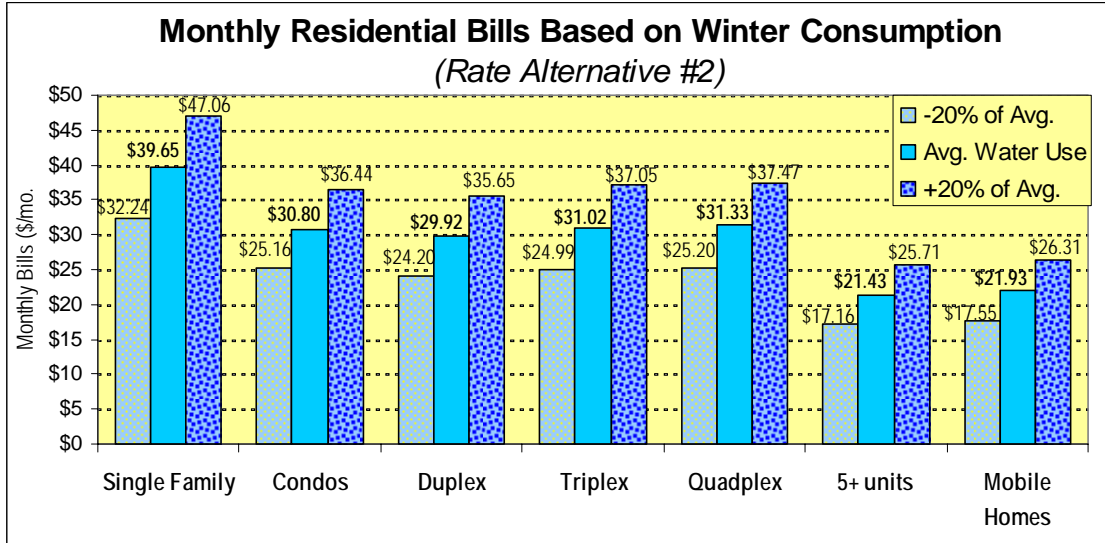


Figure 11 provides a comparison of residential monthly bills by volume that is similar to Figure 9 except if is for most of the residential customer classes. Triplex and Quadplex rates, which are not shown, are very similar to the Duplex rates.

Figure 11

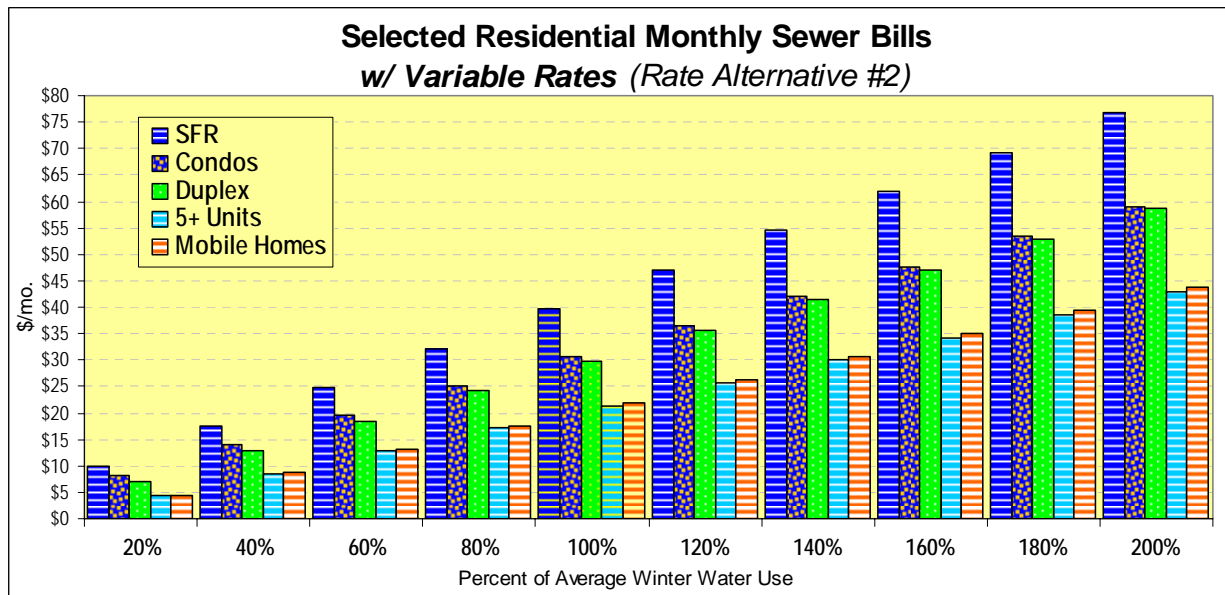


Table 5 compares the projected rates for both Rate Alternatives #1 and #2 for all residential customer classes through FY'15-16. However, since the rates for Rate Alternative #2 are based on average winter consumption, they are identical to those for Rate Alternative #1. As indicated in two previous figures, the difference between these rate alternatives is that the actual monthly bill will depend on winter water consumption.

Table 5

Projected COS Sewer Rate Increases - Financial Plan 1 (Levelized Rates) City of Davis											
Rate Alternative #1 - Cost-of-Service Rates											
Residential											
Single Family	\$35.63	\$35.63	\$39.65	\$41.64	\$44.13	\$47.66	\$52.91	\$60.31	\$66.95	\$68.29	\$69.65
Single-Family Condo	\$27.46	\$27.46	\$30.80	\$32.34	\$34.28	\$37.02	\$41.09	\$46.84	\$52.00	\$53.04	\$54.10
M2 Duplex	\$27.46	\$27.46	\$29.92	\$31.42	\$33.30	\$35.97	\$39.92	\$45.51	\$50.52	\$51.53	\$52.56
M3 Multi-Family Triplex	\$27.46	\$27.46	\$31.02	\$32.57	\$34.52	\$37.29	\$41.39	\$47.18	\$52.37	\$53.42	\$54.49
M4 Quadplex	\$27.46	\$27.46	\$31.33	\$32.90	\$34.87	\$37.66	\$41.81	\$47.66	\$52.90	\$53.96	\$55.04
M5 5 + units	\$24.80	\$24.80	\$21.43	\$22.50	\$23.85	\$25.76	\$28.60	\$32.60	\$36.19	\$36.91	\$37.65
MH Mobile Homes	\$24.80	\$24.80	\$21.93	\$23.02	\$24.41	\$26.36	\$29.26	\$33.35	\$37.02	\$37.76	\$38.52
Rate Alternative #2 - COS/Winter Consumption Rates (a)											
Residential (Typical Monthly Rates)											
Single Family	\$35.63	\$35.63	\$39.65	\$41.64	\$44.13	\$47.66	\$52.91	\$60.31	\$66.95	\$68.29	\$69.65
Single-Family Condo	\$27.46	\$27.46	\$30.80	\$32.34	\$34.28	\$37.02	\$41.09	\$46.84	\$52.00	\$53.04	\$54.10
M2 Duplex	\$27.46	\$27.46	\$29.92	\$31.42	\$33.30	\$35.97	\$39.92	\$45.51	\$50.52	\$51.53	\$52.56
M3 Multi-Family Triplex	\$27.46	\$27.46	\$31.02	\$32.57	\$34.52	\$37.29	\$41.39	\$47.18	\$52.37	\$53.42	\$54.49
M4 Quadplex	\$27.46	\$27.46	\$31.33	\$32.90	\$34.87	\$37.66	\$41.81	\$47.66	\$52.90	\$53.96	\$55.04
M5 5 + units	\$24.80	\$24.80	\$21.43	\$22.50	\$23.85	\$25.76	\$28.60	\$32.60	\$36.19	\$36.91	\$37.65
MH Mobile Homes	\$24.80	\$24.80	\$21.93	\$23.02	\$24.41	\$26.36	\$29.26	\$33.35	\$37.02	\$37.76	\$38.52
Annual Rate Increase - Financial Plan 1	0.0%	5.0%	5.0%	6.0%	8.0%	11.0%	14.0%	11.0%	2.0%	2.0%	

a. Typical rates based on the average winter water consumption. Actual rates will vary by user depending on water consumption.

Although Section 4.4 below provides a discussion of rate structure alternatives and life-line rates, the basic pros and cons of residential flat rates (Rate Alternative #1) versus winter-consumption based rates (Rate Alternative #2) are summarized as follows:

Flat Rates – Pros: Easy to calculate and administer. Residents know what their bill will be every month. Eliminate the influence of landscape water use, which is unrelated to sewer cost of service. **Cons:** Does not promote greater water consumption. Treats all customers the same, therefore those generating more than the average amount of wastewater pay the same as those generating less than average.

Winter Water-Consumption Based Rates – Pros: Promotes greater water conservation. Results in lower sewer bills for customers generating less than average wastewater effluent. Overall, has a stronger relationship to the cost-of-service than flat rates. **Cons:** Administratively more complicated to calculate. Introduces a change that is potentially confuses customers. Residential customers with higher than average water use would see higher than average rate increases.

Commercial Rates – Table 6 summarizes the projected commercial rates for Rate Alternative #1, including the flat monthly service charge and the variable rate. The projected commercial rates for Rate Alternative #2 are the same as Rate Alternative #1.

Table 6

Projected COS Sewer Rate Increases - Financial Plan 1 (Levelized Rates)											Rate Alternative #1 - COS Flat Mo. Rates
City of Davis											
Customer Class	Current	Projected Rates									
		FY'06-07	FY'07-08	FY'08-09	FY'09-10	FY'10-11	FY'11-12	FY'12-13	FY'13-14	FY'14-15	FY'15-16
Rate Alternative #1 - Cost-of-Service Rates											
Commercial - Monthly Flat Rates (\$/Billing Unit)											
C1 Office/Retail	\$2.21	\$2.21	\$2.60	\$2.72	\$2.89	\$3.12	\$3.46	\$3.95	\$4.38	\$4.47	\$4.56
C2 Laundry	\$2.21	\$2.21	\$2.60	\$2.72	\$2.89	\$3.12	\$3.46	\$3.95	\$4.38	\$4.47	\$4.56
C3 All Other	\$2.21	\$2.21	\$2.60	\$2.72	\$2.89	\$3.12	\$3.46	\$3.95	\$4.38	\$4.47	\$4.56
C4 Convalescent Hospi	\$2.21	\$2.21	\$2.60	\$2.72	\$2.89	\$3.12	\$3.46	\$3.95	\$4.38	\$4.47	\$4.56
C5 Auto/Service Stator	\$2.21	\$2.21	\$2.60	\$2.72	\$2.89	\$3.12	\$3.46	\$3.95	\$4.38	\$4.47	\$4.56
C6 Restaurants	\$2.21	\$2.21	\$2.60	\$2.72	\$2.89	\$3.12	\$3.46	\$3.95	\$4.38	\$4.47	\$4.56
C7 Industrial	\$2.21	\$2.21	\$2.60	\$2.72	\$2.89	\$3.12	\$3.46	\$3.95	\$4.38	\$4.47	\$4.56
Commercial - Variable Rate (\$/hcf)											
C1 Office/Retail	\$3.74	\$3.74	\$4.12	\$4.33	\$4.59	\$4.96	\$5.50	\$6.27	\$6.96	\$7.10	\$7.24
C2 Laundry	\$3.74	\$3.74	\$4.20	\$4.41	\$4.67	\$5.05	\$5.60	\$6.39	\$7.09	\$7.23	\$7.38
C3 All Other	\$3.74	\$3.74	\$4.12	\$4.33	\$4.59	\$4.96	\$5.50	\$6.27	\$6.96	\$7.10	\$7.24
C4 Convalescent Hospi	\$3.86	\$3.86	\$4.39	\$4.61	\$4.89	\$5.28	\$5.86	\$6.68	\$7.42	\$7.57	\$7.72
C5 Auto/Service Stator	\$3.90	\$3.90	\$4.47	\$4.69	\$4.97	\$5.37	\$5.96	\$6.79	\$7.54	\$7.69	\$7.85
C6 Restaurants	\$5.20	\$5.20	\$6.54	\$6.87	\$7.28	\$7.86	\$8.73	\$9.95	\$11.05	\$11.27	\$11.49
C7 Industrial	\$4.05	\$4.05	\$4.65	\$4.88	\$5.18	\$5.59	\$6.21	\$7.07	\$7.85	\$8.01	\$8.17
Annual Rate Increase - Financial Plan 1		0.0%	5.0%	5.0%	6.0%	8.0%	11.0%	14.0%	11.0%	2.0%	2.0%

As a part of the cost-of-service analysis, the effluent strength characteristics are examined, along with the actual effluent generation. When these factors are updated after a period of several years, the allocation of costs among commercial customers often changes. The cost-of-service analysis performed herein indicates that commercial customers with higher strength effluent, such as restaurants, should be allocated a slightly higher share of the commercial costs.

As a result, lower-strength commercial customers, such as commercial retail and office space, have slightly smaller rate increases compared to higher-strength customers such as restaurants. Figures 11 and 12 illustrate these results.

Figure 11

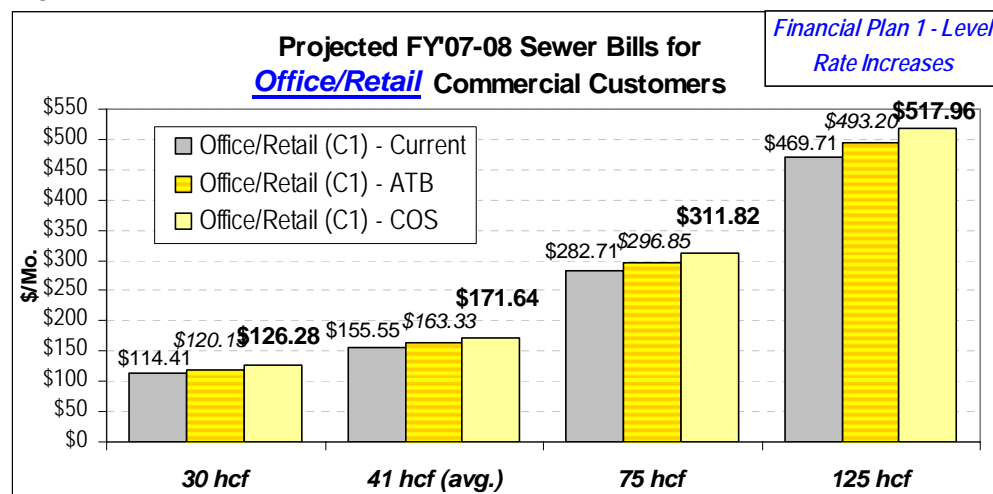
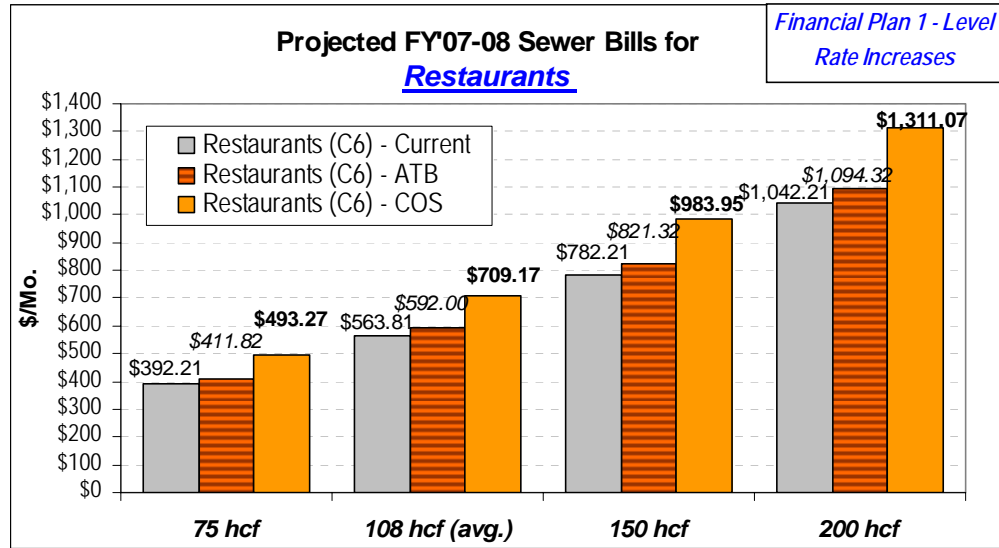


Figure 12



Industrial Rates – Industrial customers are non-residential customers that do not easily fit into any of the existing commercial customer classes. Typically, they have effluent with higher than normal strength characteristics. Sewer utility staff often have to calculate special rates for these kinds of customers because of their unique attributes. To do this, a set of unit costs is needed for the three typical wastewater parameters, which are flow, biological oxygen demand (BOD), and total suspended solids (TSS).

Table 7 summarizes projected cost-of-service sewer rates that apply to such industrial customers. These rates recover exactly the same costs for collection, treatment, and general administrative costs that are recovered from residential and commercial customers, and are the same for Rate Alternatives #1 and #2.

Table 7

Summary of Projected Industrial Sewer Service Charges										
City of Davis										
Industrial Charges	Units	FY'07-08	FY'08-09	FY'09-10	FY'10-11	FY'11-12	FY'12-13	FY'13-14	FY'14-15	FY'15-16
Monthly Service Charge	\$/acct/mo.	\$2.60	\$2.72	\$2.89	\$3.12	\$3.46	\$3.95	\$4.38	\$4.47	\$4.56
Flow-Based Charges										
Per Mil. Gal./Day	\$/mgd	\$1,833,966	\$1,925,664	\$2,041,204	\$2,204,500	\$2,446,995	\$2,789,575	\$3,096,428	\$3,158,357	\$3,221,524
Per 100 cu.ft.	\$/hcf	\$3.7587	\$3.9466	\$4.1834	\$4.5181	\$5.0150	\$5.7171	\$6.3460	\$6.4730	\$6.6024
Strength Charges										
BOD	\$/lb.	\$0.32846	\$0.34488	\$0.36557	\$0.39482	\$0.43825	\$0.49960	\$0.55456	\$0.56565	\$0.57696
TSS	\$/lb.	\$0.18008	\$0.18908	\$0.20043	\$0.21646	\$0.24027	\$0.27391	\$0.30404	\$0.31012	\$0.31632
Annual Rate Increase - Financial Plan 1		5.0%	5.0%	6.0%	8.0%	11.0%	14.0%	11.0%	2.0%	2.0%

a. From Table COS-S4.

b. From Table COS-S1. Assumes industrial charges are based on winter water use or metered effluent.

Additional details on the cost-of-service analysis are provided in Appendix C.

4.4 – Rate Structure and Life-Line Rates

The City is interested in evaluating a residential rate structure that would serve as a life-line rate benefiting low-income and senior customers. There are several possible alternatives for such a program:

- Direct Subsidies Within the Sewer Fund
- Direct Subsidies Paid by the City’s General Fund

- Combined Fixed and Volume-Based Rates
- Volume-Based Rates Using Winter Consumption (Rate Alternative #2)
- Volume-Based Rates Using Monthly Water Consumption

Direct Subsidies - An over-arching concern with such program is whether it meets the requirements of Prop 218 that rates be proportional to the benefits received. This generally prohibits subsidies whereby some customers are asked to pay more than their fair share to benefit other customers and would eliminate the first option (direct subsidies within the Sewer Fund).

However, Prop 218 does allow direct subsidies through the City's General Fund. Whether or not the City is willing to allocate General Fund money for a sewer rate subsidy is a matter of City policy, and a decision that would need to be made by the City Council.

Combined Fixed and Volume-Based Rates – The next option would be to use a combined fixed and variable rate structure, where part of the monthly bills is a fixed monthly service charge that includes a minimum level of water consumption and the remainder of the bill uses a volume-based charge. Although this option is more beneficial (and more equitable) to low-income and senior customers, it is less favorable than a rate structure that is essentially volume-based. That is, customers who actually use less water (in the winter months) than what is included in the minimum will have higher monthly bills than under a largely volume-based rate structure.

Volume-Based Rates Using Winter Consumption – Unlike direct subsidies or a combined fixed/variable rate, rate alternatives that are largely volume-based (in this case the volume is winter water consumption) can provide greater benefits to low-income and senior customers, and avoid the use of a direct subsidy. For example, in a volume-based rate structure low-income/senior groups would typically pay less because they typically use less than an average amount of non-landscape water. Compared to a flat rate, customers with low winter water uses would pay less than under the current flat rates; likewise, high use consumers would pay more than they currently do under flat rates. This alternative has a strong cost-of-service basis and clearly meets the proportionality requirement of Prop 218. (Note: this is the same as Rate Alternative #2.)

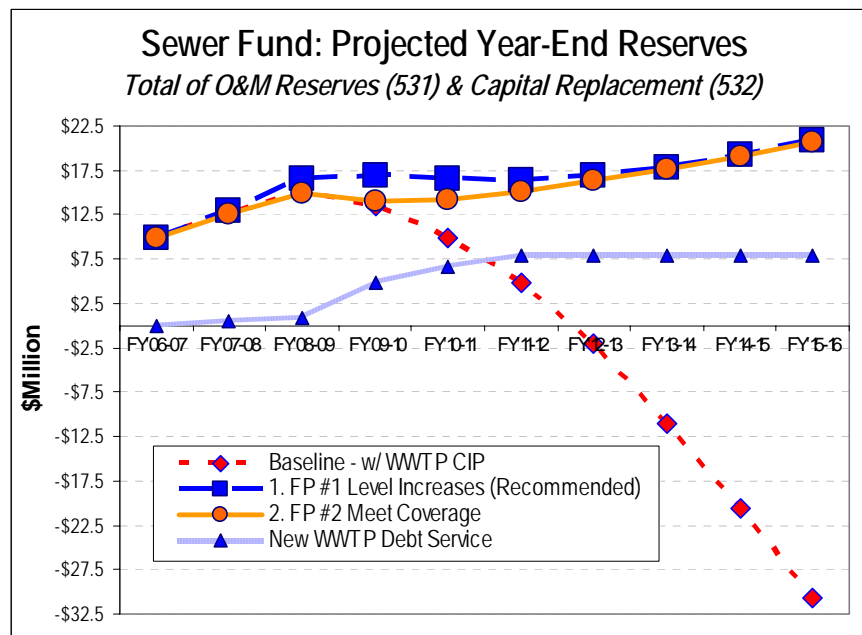
Volume-Based Rates Using Monthly Water Consumption – The last option is a residential sewer rate structure based on monthly water consumption rather than winter consumption. Typically, this would benefit customers with lower water consumption such as those with smaller homes, smaller yards, and fewer water-consuming fixtures and appliances (bathrooms, sinks, dish and clothes washers, etc.). Unfortunately, this approach also introduces an undesirable factor of landscape water use, which is largely unrelated to a customer's generation of sewer effluent. That is, customers with larger yards, or even smaller yards who water their yards more intensely, are "penalized" with higher sewer bills for water use unrelated to their cost of service for the sewer system.

4.5 – Reserve Fund Balances

Maintaining sufficient reserve funds is critical to the financial health of the sewer utility. Figure 13 represents the overall year-end fund balances of the operating fund (Fund 531) and the capital replacement reserves (Fund 532). This figure indicates that without

rate increases, reserve fund balances would quickly decline over the next 10 years, reaching a deficit of \$30 million by FY'15-16.

Figure 13 (See Table 9 for data)



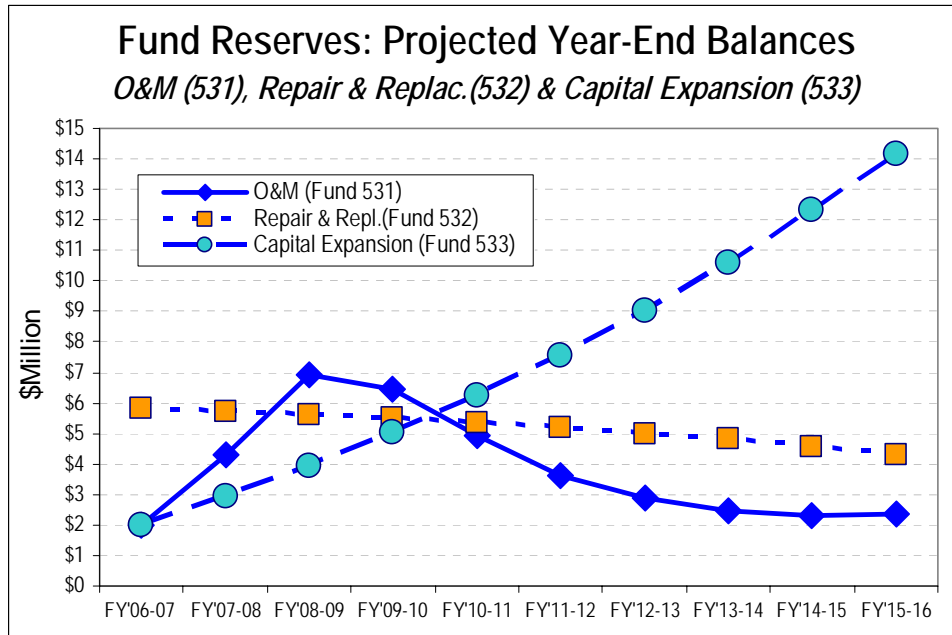
Because of the \$140 million cost of treatment plant improvements the City is required to make, the City will need to issue significant amounts of new revenue bonds. As a result, bond covenants will require the sewer enterprise fund to maintain net revenues of at least 125% of the total debt service payments. The purpose of this requirement is to guarantee bond holders that the City will be able to meet its obligations to repay of the bonds in addition to adequately operating and maintaining the facilities. Because of the size of the City’s annual debt service payments, which will reach almost \$5 million within two years and almost \$8 million within 4 years, this 125% coverage ratio will require the City to maintain sizeable reserves.

As discussed below in Section 5, if the City were to try to build sufficient reserves at the same time as starting to pay the new debt service, the annual rate increases quite high. However, by adopting more gradual rate increases and slowly building reserves, the City can avoid dramatic single year “rate shock”. This is the approach of Financial Plan #1. Financial Plan #2 delays rate increases, but then needs dramatic rate increases to meet the coverage requirement of the bond covenant.

Figure 14 shows the year fund balances for the City’s three sewer funds:

- Operating Reserve (Fund 531) – This is a working capital and emergency reserve for general operations and maintenance expenses.
- Capital Replacement Reserve (Fund 532) – Also know as a repair and replacement reserve, this money is set aside for normal capital replacements for assets that are significant but smaller than major facilities such as the treatment plant.
- Capital Expansion Reserve (Fund 533) – These are connection fees that are reserved for expansion-related improvement. However, as discussed later in

Section 6, future customers are allocated a portion of the costs of the treatment plant improvements and, therefore, Fund 533 could be used to repay some of the debt for those improvements.



In terms of meeting the bond coverage ratio, only the O&M fund reserves can be counted towards the 125% of debt service.

The details of these projected reserve fund levels are shown in more detail in the financial plans discussed in the next section.

5. FINANCIAL PLANS

Background and Overview – In response to stricter state permit requirements, the City is designing and constructing upgrades to the wastewater treatment plant. To address the financial aspects of these upgrades, Foresight has developed a baseline plus two alternative approaches to the financial plans. Both alternatives are designed to comply with this State mandate. The first approach (Financial Plan #1) meets the annual funding requirements for both operations and WWTP improvements, meets the projected bond coverage requirements, and minimizes the annual rate increases. The second approach (Financial Plan #2) attempts to achieve these same objectives, but delays rate increases for as long as possible.

Based on the relative merits of these two approaches, Foresight is recommending the City adopt the first approach (Financial Plan #1) because it improves the financial health of the sewer utility, enables it to issue the necessary revenue bonds under more favorable conditions, and avoids the “rate shock” that occurs in a few years under Financial Plan #2.

The annual cash flows and reserve fund levels for the sewer maintenance and operations fund (531) are shown for the two financial plans and the baseline scenario in Table 8 on the next page.

Table 8

10-Year Financial Plan - Alternative Rate Increases											
<i>City of Davis</i>											
	Projected Rev. Req'ts., Rate Revenue & Fund Balances										
	<i>Current (a)</i>	FY'06-07	FY'07-08	FY'08-09	FY'09-10	FY'10-11	FY'11-12	FY'12-13	FY'13-14	FY'14-15	FY'15-16
Net Revenue Requirements (b)	\$ 7,141,608	\$ 12,141,954	\$ 8,670,050	\$ 8,918,010	\$ 9,173,712	\$ 9,437,361	\$ 9,709,180	\$ 11,499,380	\$ 13,377,189	\$ 13,763,834	\$ 14,169,546
<i>Annual % Increase over Previous Year</i>	26.7%	70.0%	-28.6%	2.9%	2.9%	2.9%	2.9%	18.4%	16.3%	2.9%	2.9%
Baseline Alternative (Current Rates, No Rate Increases)											
Beginning O&M Fund Balance (531)	\$ 1,142,736	\$ 3,098,128	\$ 1,988,311	\$ 3,898,095	\$ 5,365,363	\$ 2,905,275	\$ (1,745,340)	\$ (7,941,323)	\$ (16,095,157)	\$ (26,377,600)	\$ (37,393,337)
Revenue from Current Rates (c)	\$ 9,097,000	\$ 10,892,736	\$ 11,001,700	\$ 11,111,700	\$ 11,222,800	\$ 11,335,000	\$ 11,448,400	\$ 11,562,900	\$ 11,678,500	\$ 11,795,300	\$ 11,913,300
Interest Earnings (e)	\$ -	\$ 139,400	\$ 89,500	\$ 175,400	\$ 241,400	\$ 130,700	\$ (78,500)	\$ (357,400)	\$ (724,300)	\$ (1,187,000)	\$ (1,682,700)
less Add'l Debt Service for WWTP	\$ -	\$ -	\$ (511,366)	\$ (901,821)	\$ (4,750,576)	\$ (6,678,954)	\$ (7,856,704)	\$ (7,859,954)	\$ (7,859,454)	\$ (7,860,204)	\$ (7,856,954)
less Net Revenue Req't's.	\$ (7,141,608)	\$ (12,141,954)	\$ (8,670,050)	\$ (8,918,010)	\$ (9,173,712)	\$ (9,437,361)	\$ (9,709,180)	\$ (11,499,380)	\$ (13,377,189)	\$ (13,763,834)	\$ (14,169,546)
Ending O&M Fund Balance (531)	\$ 3,098,128	\$ 1,988,311	\$ 3,898,095	\$ 5,365,363	\$ 2,905,275	\$ (1,745,340)	\$ (7,941,323)	\$ (16,095,157)	\$ (26,377,600)	\$ (37,393,337)	\$ (49,189,237)
Financial Plan Alternative #1 - Levelized Rates (to the Extent Possible)											
<i>Rate Increase (c)</i>		0.0%	5.0%	5.0%	6.0%	8.0%	11.0%	14.0%	11.0%	2.0%	2.0%
<i>Implementation Dates</i>		--	8/1/07	8/1/08	8/1/09	8/1/10	8/1/11	8/1/12	8/1/13	8/1/14	8/1/15
Beginning O&M Fund Balance (531)	\$ 1,142,736	\$ 3,098,128	\$ 1,988,311	\$ 4,310,658	\$ 6,935,476	\$ 6,438,814	\$ 4,918,578	\$ 3,612,947	\$ 2,883,488	\$ 2,480,256	\$ 2,296,705
Revenue from Current Rates (c)	\$ 9,097,000	\$ 10,892,736	\$ 11,001,700	\$ 11,111,700	\$ 11,222,800	\$ 11,335,000	\$ 11,448,400	\$ 11,562,900	\$ 11,678,500	\$ 11,795,300	\$ 11,913,300
Add'l. Rev. from Alt. #1 Rate Increase	\$ -	\$ -	\$ 412,564	\$ 1,138,949	\$ 1,892,725	\$ 2,971,380	\$ 4,590,552	\$ 6,904,375	\$ 9,025,111	\$ 9,533,587	\$ 10,059,806
Interest Earnings (d)	\$ -	\$ 139,400	\$ 89,500	\$ 194,000	\$ 312,100	\$ 289,700	\$ 221,300	\$ 162,600	\$ 129,800	\$ 111,600	\$ 103,400
less Add'l Debt Service for WWTP	\$ -	\$ -	\$ (511,366)	\$ (901,821)	\$ (4,750,576)	\$ (6,678,954)	\$ (7,856,704)	\$ (7,859,954)	\$ (7,859,454)	\$ (7,860,204)	\$ (7,856,954)
less Baseline Net Revenue Req't's.	\$ (7,141,608)	\$ (12,141,954)	\$ (8,670,050)	\$ (8,918,010)	\$ (9,173,712)	\$ (9,437,361)	\$ (9,709,180)	\$ (11,499,380)	\$ (13,377,189)	\$ (13,763,834)	\$ (14,169,546)
Ending O&M Fund Balance (531)	\$ 3,098,128	\$ 1,988,311	\$ 4,310,658	\$ 6,935,476	\$ 6,438,814	\$ 4,918,578	\$ 3,612,947	\$ 2,883,488	\$ 2,480,256	\$ 2,296,705	\$ 2,346,712
Financial Plan Alternative #2 - Rate Increases Set to Meet Coverage Requirement											
<i>Rate Increase (c)</i>		0.0%	0.0%	0.0%	5.0%	27.5%	12.0%	10.3%	9.0%	1.0%	1.0%
<i>Implementation Dates</i>		--	8/1/07	8/1/08	8/1/09	8/1/10	8/1/11	8/1/12	8/1/13	8/1/14	8/1/15
Beginning O&M Fund Balance (531)	\$ 1,142,736	\$ 3,098,128	\$ 1,988,311	\$ 3,898,095	\$ 5,365,363	\$ 3,466,415	\$ 2,680,831	\$ 2,401,279	\$ 2,273,211	\$ 2,191,509	\$ 2,141,898
Revenue from Current Rates (c)	\$ 9,097,000	\$ 10,892,736	\$ 11,001,700	\$ 11,111,700	\$ 11,222,800	\$ 11,335,000	\$ 11,448,400	\$ 11,562,900	\$ 11,678,500	\$ 11,795,300	\$ 11,913,300
Add'l. Rev. from Alt. #2 Rate Increase	\$ -	\$ -	\$ -	\$ -	\$ 561,140	\$ 3,839,731	\$ 5,717,331	\$ 7,560,266	\$ 9,374,141	\$ 9,680,526	\$ 9,994,277
Interest Earnings (d)	\$ -	\$ 139,400	\$ 89,500	\$ 175,400	\$ 241,400	\$ 156,000	\$ 120,600	\$ 108,100	\$ 102,300	\$ 98,600	\$ 96,400
less Add'l Debt Service for WWTP	\$ -	\$ -	\$ (511,366)	\$ (901,821)	\$ (4,750,576)	\$ (6,678,954)	\$ (7,856,704)	\$ (7,859,954)	\$ (7,859,454)	\$ (7,860,204)	\$ (7,856,954)
less Baseline Net Revenue Req't's.	\$ (7,141,608)	\$ (12,141,954)	\$ (8,670,050)	\$ (8,918,010)	\$ (9,173,712)	\$ (9,437,361)	\$ (9,709,180)	\$ (11,499,380)	\$ (13,377,189)	\$ (13,763,834)	\$ (14,169,546)
Ending O&M Fund Balance (531)	\$ 3,098,128	\$ 1,988,311	\$ 3,898,095	\$ 5,365,363	\$ 3,466,415	\$ 2,680,831	\$ 2,401,279	\$ 2,273,211	\$ 2,191,509	\$ 2,141,898	\$ 2,119,375
<i>Assumed Customer Growth Rate</i>		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
<i>Coverage Ratio - Financial Plan #1:</i>		4.37	4.55	5.27	1.93	1.39	1.22	1.21	1.20	1.21	1.24
<i>Coverage Ratio - Financial Plan #2:</i>		4.37	4.09	4.00	1.21	1.20	1.20	1.21	1.20	1.20	1.21

a. Unless noted otherwise, from Final Budget 2005-2006 (as shown in Table titled "Summary of Projected Sewer Operating Budgets, Debt Service and Net Revenue Requirements")

b. Revenue required from rates. From Table B-1, "Summary of Projected Sewer Operating Budgets, Debt Service and Net Revenue Requirements"

c. FY'05-06 and FY'06-07 revenue from rates is from the Summary of Fund Balances, Revenues, and Expenditures/ Encumbrances by Fund (Oct. 27, 2006 fax from Sue Gedestad).

d. Interest earnings based on previous year's ending fund balance and an assumed interest rate of 4.5%.

As Table 8 indicates, the Baseline financial plan, which includes no rate increases, results in year-end reserve fund levels that drop quickly due to the additional debt service payments for the WWTP improvements. In contrast, the rate increases included in Financial Plan #1 maintain a positive and increasing reserve fund and meets the new bond coverage ratio with rate increases of 5% for the next two years, gradually reaching the highest rate increases of 11% and 14% in FY'11-12 and FY'12-13, respectively. The objective of this plan is to minimize annual rate increases, avoid rate spikes in any one year, and meet the debt service payments and coverage requirements.

Although Financial Plan #2 provides sufficient funding for the new debt service and meets the bond coverage requirements, it produces a “spike” in sewer rates in a few years (i.e., over 27% in FY'10-11). Overall, the financial health of the sewer utility is lower, which is a concern to the investment banking community that will determine the conditions under which it issues new revenue bonds to the City. In other words, Financial Plan #2 offers a less attractive scenario for issuing bonds, and could result in higher interest costs. Because of this, Foresight recommends the City adopt the rate increases and funding approach outlined in Financial Plan #1.

Target Reserve Fund Balances – The projected reserve fund balances were previously shown in Figure 14. These reserves are dictated to a large degree by the bond coverage requirements. However, the City should also establish target fund balances for each of the three reserves. The following are proposed target reserve fund levels:

- Operating Reserve (Fund 531) – Sufficient reserves to fund three months of the operating budget (i.e., 25% of the annual O&M budget).
- Capital Replacement Reserve (Fund 532) – The intent of this fund is to provide for the repair and replacement of the capital assets of the system other than major facilities such as the treatment plant. As such, a rough rule of thumb might be to fund the annual replacement of the total capital assets assuming the average useful life of the system. Based on Sewer Fund records², the total original cost of system assets is about \$47 million and the average useful life is 35 years. Therefore, annual target reserve would be \$1.3 million (i.e., \$47 million ÷ (1/35 years)). However, the City has attempted to build its capital reserves the last several years in anticipation of the \$140 million WWTP improvements and has carried those funds in the replacement reserve. From a financial management perspective, it would be more appropriate to have a separate capital improvement reserve, but for now Fund 532 serves both purposes and therefore will carry a higher balance until and unless a capital improvement reserve is established.
- Capital Expansion Reserve (Fund 533) – This fund is a repository for connection fee revenue and, therefore, has no target balance. As long as it holds connection fee revenue and that revenue is spent appropriately on expansion-related projects, the fund balance is what it is.

Further details on the financial plans are provided in Appendix D.

² Summary of Fixed Assets, Sewer Fund – Fund 531, for the Year Ended June 30, 2005. Includes Treatment Plant (\$27.1 mil.), Pipes and Lines (\$16.4 mil.), Other Equipment and Improvements (\$1.2 mil.), and Work in Progress (\$3.1 mil.).

6. CONNECTION FEES

Background and Overview of the Connection Fee Analysis – The City’s current sewer connection fees charge new customers connecting to the sewer system for their share of the capacity costs in the sewer system. However, in light of the significant new costs related to the additional capital improvements to the wastewater treatment plant, the City needs to re-examine both the monthly sewer rates and the connection fees. The overall objective of the connection fee analysis is to ensure that the connection fees new users pay are fair and equitable to both existing and future customers.

According to the City’s engineering consultants who are designing the WWTP improvements, these improvements are solely for the purpose of upgrading the existing system and do not provide new capacity for future customers. However, connection fees should equitably allocate the capital costs of the entire system to its users, including both existing and future users, and include existing assets as well as planned capital improvements.

In evaluating connection fees, it is important to recognize the costs that existing customers have incurred to provide capacity for future customers. In other words, historical customers incurred additional costs to build more capacity than they needed in the system (including both collection and treatment facilities) so that future customers could connect to the system. Therefore, a portion of the existing collection and treatment system should be allocated to future customers. Stated another way, existing customers should be reimbursed for the previous investments they made for the benefit of future users.

When connection fees focus on repayment of existing customers for available capacity in the system, this is typically referred to as a “system buy-in” method. This is the primary method Foresight has used to calculate the City’s sewer connection fee.

Summary of the Connection Fee Analysis – Foresight has reviewed the historical system assets of the City’s sewer system as well as the planned capital improvements for the WWTP. Based on a replacement-cost-less-depreciation (RCLD) value of the existing assets, along with the costs of the planned future improvements, an equitable connection fee for new customers has been calculated. Table 9 summarizes these RCLD and future costs.

Table 9

Sewer System Assets and Allocations to Future Customers				
City of Davis				
Description	Estimated Costs (in 2006 \$'s)			
	RCLD (\$)	Allocated to Future Customers		
Existing Sewer System Fixed Assets (a)		(%) (b)	(\$)	% of Total
Treatment Plant	\$22,647,000	24.0%	\$5,435,000	
Pipe & Lines	\$4,017,000	24.0%	\$964,000	
Other Equip. & Improvements	\$281,000	24.0%	\$67,000	
Work-In-Progress	\$3,133,000	24.0%	\$752,000	
Total - Existing System	\$30,078,000		\$7,218,000	15%
WWTP Improvements (c)	NPV of Debt Service	(%) (b)	Future \$	
Series A Revenue Bonds	\$17,273,000	24.0%	\$4,146,000	
Series B Revenue Bonds	\$148,573,000	24.0%	\$35,658,000	
Total - WWTP Improvements	\$165,846,000		\$39,804,000	85%
<i>less</i> Outstanding Bond Principal (c)	(\$11,609,000)	24.0%	(\$2,786,160)	
Total - Sewer System	\$184,315,000		\$44,235,840	

a. From City's Fixed Asset Workpapers, Schedule of Depreciation, Sewer Fund 531, as of 6/30/05. Current book values were adjusted to reflect replacement cost less depreciation.

b. Reflects the percent of WWTP capacity (average dry weather flow) available for future customers. From Table EDU-1.

c. The two revenue bonds pay for the \$140 million WWTP improvements. The future customers allocation of those costs are assumed to be paid out of connection fees and therefore can be included in the connection fee calculation.

d. Estimated percent of the costs allocated to growth. System-wide allocation % is from Table EDU-1.

The future costs included in Table 9 are the present value of future debt service payments for the WWTP improvements. However, only the future customer's fair share of those costs (i.e., 24% in this case) can be included. Typically, any outstanding principal on existing debt is excluded from connection fees because it is assumed that that principal would be repaid through rates. This would then result in "double-charging" future customers if they paid for this principal in connection fees and again through their rates. However, the intent of the analysis shown in Table 9 is that future customer's share of the WWTP debt service would be paid entirely from connection fees, not rates. This analysis also assumes that the City would annually adjust connection fees for inflation, assumed to be 3% per year.

Table 10 summarizes the analysis of the City's wastewater treatment plant capacity, and concludes that approximately 24% of the current system capacity is available to serve future customers. Since this capacity is commonly calculated in terms of the number of equivalent dwelling units (or EDU's), we have converted this 24% into EDU's using the amount of effluent currently generated by single-family residential customers. By dividing the 1.8 million gallons per day (mgd) of remaining capacity by 210 gallons per day per EDU, the estimated capacity available for future customers is estimated to be 8,571 EDU's. (How does this estimate compare with the Covell Village quotes?)

Table 10

Future Customer's Share of Sewer System Assets			
<i>City of Davis</i>			
	Total WWTP Capacity (a)	Current Use of Capacity (b)	Available to Growth
WWTP Capacity Analysis			
Total WWTP ADW Capacity	7.50 mgd	5.70 mgd	1.80 mgd
Estimated EDUs of Future Capacity (c)		27,143 EDU	8,571 EDU
Percent Attributable to Growth (d)			24.0%

- a. City of Davis, Public Works Dept. This is the existing capacity constructed in 1996.
- b. Current average dry weather (ADW) flow based on 2004 ADW of 5.55 mgd (Master Plan, Table 2.5) and growth in residential units from 25,072 in 2004 (Master Plan, Table 2.1) to 25,732 units in 2006 (from current City billing records).
- c. Capacity available to Growth divided by total capacity.
- d. Available WWTP capacity divided by average of 210 gpdpc wastewater generation per typical dwelling unit (EDU). 210 gpdpc is estimated using Master Plan estimates of 2.504 person/dwelling unit (Table 2.1, page 2-2) and ADW flow per person of 84 gallons per capita (Table 2.7, page 2-6).

Using the costs allocated to future customers (Table 9) and the total EDU's of future capacity available in the City's system (Table 10), the basic connection fee is calculated in Table 11 by dividing these total costs by the total available EDU's. New connection fees by residential customer class are also shown in this table and assume that connection fees are proportional to the recommended monthly flat rates for residential customers. Non-residential customers would use cost-of-service based unit costs that reflect the unit costs developed in the rate analysis.

Table 11

Connection Fees per Equivalent Dwelling Unit (EDU)			
<i>City of Davis</i>			
	Costs Allocated to New Development (2006 \$'s)	Number of New Dwelling Units (EDU's) (a)	Connection Fees (\$/EDU)
Sewer Connection Fees	\$44,235,840	8,571	\$5,160
Residential Class (proportional to residential sewer rates)			(\$/Unit) (b)
Single Family			\$5,160
Single-Family Condo			\$4,010
M2 Duplex			\$3,890
M3 Triplex			\$4,040
M4 Quadplex			\$4,080
M5 5 + units			\$2,790
MH Mobile Homes			\$2,850
Non-Residential:	<i>Units/EDU (c)</i>	<i>Cost/EDU (d)</i>	Unit Cost (e)
Flow (hcf/day)	0.340361	\$4,097	\$12,037 /hcf/day
BOD (lbs/day)	0.491275	\$641	\$1,305 /lb./day
TSS (lbs/day)	0.589480	<u>\$422</u>	\$716 /lb./day
		\$5,160	

- a. An equivalent dwelling unit (EDU) is a 5/8th-inch water meter and/or an equivalent single-family home. Fees are rounded to the nearest \$10.
- b. Connection fees are proportional to recommended residential COS monthly flat rates.
- c. Typical single-family wastewater effluent characteristics from rate analysis. See Table AL-S2.
- d. Typical cost for a single-family unit (EDU). See Table CF-3.
- e. Typical cost for a single-family unit (EDU) divided by the units/EDU. See Table CF-3.

This connection fee has been included in the financial plans by assuming it will be used to generate connection fee revenue based on the assumed growth rate of 1% per year, or approximately 270 EDU's per year. This revenue accrues to the Capital Expansion Reserves (Fund 533). Additional tables and analysis used in calculating the new connection fees are provided in Appendix E.

7. RECOMMENDATIONS

The following are the primary recommendations Foresight Consulting is making to the City as a result of this study:

1. Adopt the Cost-of-Service Sewer Rates

We recommend the City adopt the residential and commercial cost-of-service rates calculated in this analysis that reflect Rate Structure #1 and Financial Plan #1. These rates use the same rate structure as the City's current rates, but they incorporate the updated information on water consumption, effluent strength characteristics, and treatment plant loadings. We believe these rates are more equitable than the City's current rates. They also provide for future funding of the debt service the City will incur to construct the planned improvements to the wastewater treatment plant.

2. Adopt Cost-of-Service Industrial Rates

Industrial customers can be defined as those that don't easily fit into existing commercial categories and have effluent strengths that are not typical of commercial classes. The City currently has only two such industrial customers, but there are others that may need to be shifted from the commercial class to industrial in the future. The City also needs broad-based industrial rates to evaluate its costs for providing treatment service to other types of customers, such as the Frontier groundwater treatment site and possibly leachate from the County Sanitary Landfill. We recommend the City adopt the cost-of-service industrial rates previously shown in Table 7.

3. Adopt Sewer Financial Plan #1

The objectives of Financial Plan #1 include (1) minimizing annual rate increases of the next ten years, (2) ensuring the City is able to cover annual operating and capital costs, including new debt service for WWTP improvements, and (3) creating a financially healthy sewer utility that can issue new revenue bonds under favorable conditions. We believe the overall benefits of this Financial Plan #1 will best serve the needs of the City's sewer utility and its rate payers.

4. Adopt Sewer Connection Fees of \$5,160 per Equivalent Dwelling Unit

The City should update its sewer connection fees using a methodology that is primarily based on a system buy-in approach, which we believe is the most equitable to both current and future customers. Initial projections indicate that this new connection fee would adequately fund the future customers' share of the WWTP improvements and related improvements, and would pay an equitable share of the existing system capacity. Recommended connection fees are those shown in Table 11 above.

Appendix A – Rate Methodology

Industry Standards and Guidelines – The following are a few key cost-of-service principles from the American Water Works Association (AWWA) Rate Manual (M1) that are relevant to the City’s sewer rate study:

“A water rate structure is a fee or schedule of fees designed, among other things, to recover the utility’s costs. The design, however, is a function of many diverse and sometimes competing objectives. A properly selected rate structure should support and optimize a blend of various utility objectives and should work as a public information tool in communicating these objectives to customers.”

“No one rate structure meets all utility objectives equally, and not all objectives are valued the same by the utility or its customers. Rate objectives common to many utilities and their customers include:

- *Yielding necessary revenue in a stable and predictable manner*
- *Minimizing unexpected changes to customer bills*
- *Discouraging wasteful use and promoting justified uses*
- *Promoting fairness and equity*
- *Maintaining simplicity, certainty, convenience, feasibility, and freedom from controversy*

Recognizing and recovering the costs associated within different types of demand from appropriate customer classes avoids subsidies among customer classes and minimizes potential subsidies within customer classes”³.

Methodology Used for the City’s Sewer Rates

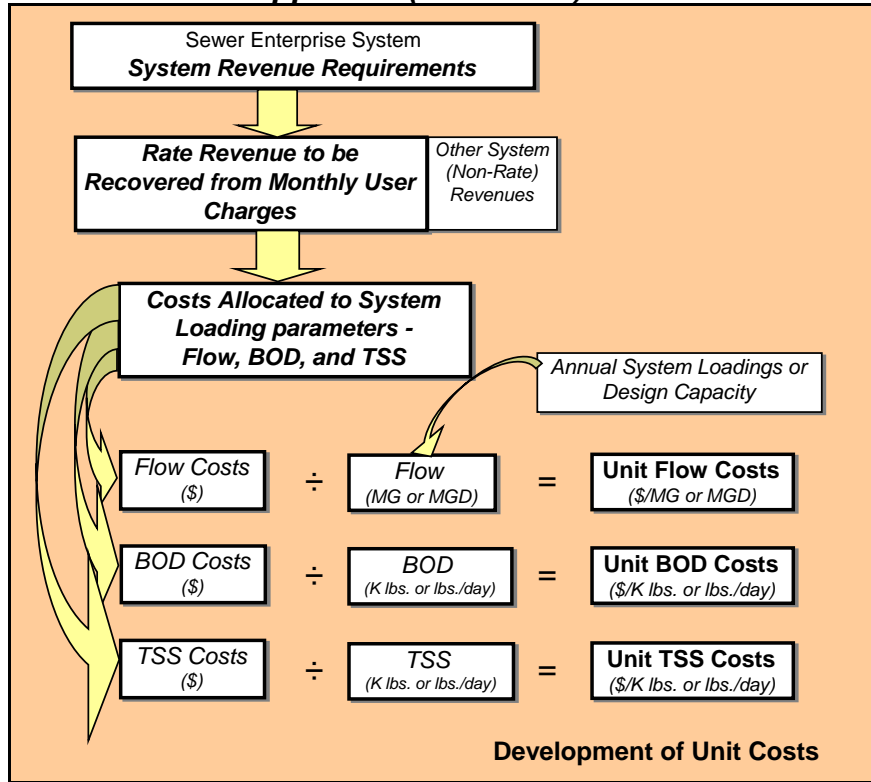
The two figures below provide a general overview of the approach to the cost-of-service methodology used in this study to calculate sewer rates. Based on this general approach, the three basic components involved in the rate study mentioned earlier in Section 3 of the report include the: (1) revenue requirements, (2) financial plan, and (3) cost of service analysis.

Each of these three components includes more detailed analyses that are documented in the tables in the various Appendices to this report. The revenue requirements are addressed in the tables shown in *Appendix B – Projected Sewer Budgets*. The financial plan is summarized by the tables shown in *Appendix D – Further Details on Financial Plans and CIP Funding*. And the cost of service analysis is shown in *Appendix C – Cost-of-Service Analysis – Supporting Data*.

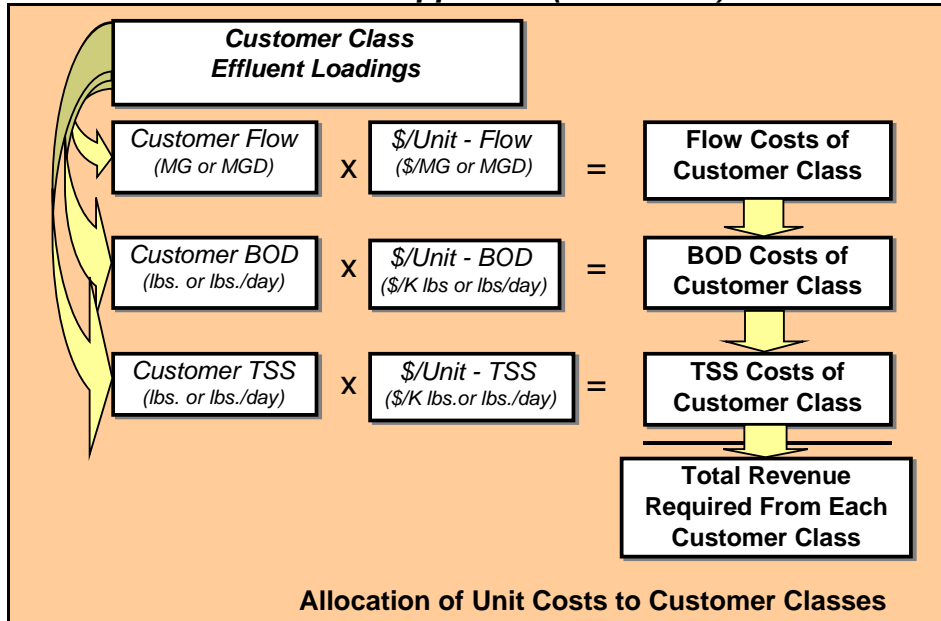
Final documentation for the sewer rate analysis and calculation of connection fees is provided in the Excel-based rate model which Foresight will provide the City at the conclusion of this study.

³ Manual of Water Supply Practices (M1), Principles of Water Rates, Fees, and Charges, published by the American Water Works Association (AWWA), Chapter 9.

Cost-of-Service Approach (Part 1 of 2)



Part 2 of Cost-of-Service Approach (Part 2 of 2)



Appendix B – Projected Sewer Budgets

Maintenance & Operations	Adjusted (a)			Projected Budgets							
	FY '05-06	FY '06-07	FY '07-08	FY '08-09	FY '09-10	FY '10-11	FY '11-12	FY '12-13	FY '13-14	FY '14-15	FY '15-16
Total Collection	1,131,757	1,251,150	1,288,684	1,327,345	1,367,165	1,408,180	1,450,426	1,493,938	1,538,756	1,584,919	1,632,467
Total WWTP	4,213,274	4,507,958	4,643,197	4,782,493	4,925,968	5,073,747	5,225,959	5,382,738	5,544,220	5,710,547	5,881,863
Additional WWTP O&M (b)	-	-	-	-	-	-	-	1,510,000	3,100,000	3,190,000	3,290,000
Total WW Pre-Treatment	239,723	376,012	387,292	398,911	410,878	423,205	435,901	448,978	462,447	476,321	490,610
Total Inter-Dept. Charges	472,223	526,051	541,833	558,088	574,830	592,075	609,837	628,132	646,976	666,386	686,377
Total Sewer Division O&M	6,056,977	6,661,171	6,861,006	7,066,836	7,278,841	7,497,207	7,722,123	7,963,787	8,212,400	8,471,624	8,731,254
Other Division (531) Expenses (c)	72,342	325,788	335,562	345,628	355,997	366,677	377,678	389,008	400,678	412,698	425,079
Existing Debt Service (d)	586,091	591,669	597,482	603,545	609,873	616,477	623,379	630,585	638,110	645,963	654,149
Less: Non Rate Revenue	-	-	-	-	-	-	-	-	-	-	-
Total Before Capital Repl. Transfers	6,715,410	7,578,628	7,794,050	8,016,010	8,244,712	8,480,361	8,723,180	8,973,393	9,230,208	9,494,385	9,760,482
Transfers to Replacement Fund (532)	426,198	4,563,326	876,000	902,000	929,000	957,000	986,000	1,016,000	1,046,000	1,077,000	1,109,000
Total Revenue Requirements (e)	\$7,141,608	\$12,141,954	\$8,670,050	\$8,918,010	\$9,173,712	\$9,437,361	\$9,709,180	\$11,499,380	\$13,377,189	\$13,763,834	\$14,169,546
Expenditure Inflation Rate		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

a. From Budget Preparation Worksheet, prepared 2/10/06.
 b. Based on Carollo estimate of \$2.45 mil. annual O&M for \$140 mil. new plant facilities plus 3% inflation from 2005, but only 50% for first year. Construction schedule is per Carollo's email to Keith Smith (9-15-06). Carollo's proposed construction schedule: 3% 7% 10% 25% 35% 20% 0% 0% 0%
 c. Expenses not directly shown in the Fund 531 Budget, including promotions (1160), utility accounting (2850), CIP Admin (8110), and WWTP facility planning & construction (8119).
 d. Includes portions of existing debt service (SRF loans, WWTP Expansion bond, and Interfund loan) that are allocated to existing customers per City documents.
 e. Total Revenue Requirements after transfers to Capital Replacement Fund Reserves (Fund 532)

Account No.	Description	Adjusted (a)			Projected Budgets							
		FY '05-06	FY '06-07	FY '07-08	FY '08-09	FY '09-10	FY '10-11	FY '11-12	FY '12-13	FY '13-14	FY '14-15	FY '15-16
COLLECTION - SALARIES												
531-7312-490.01-01	SALARIES/WAGES	280,294	379,813	391,207	402,944	415,032	427,483	440,307	453,517	467,122	481,136	495,570
531-7312-490.01-02	BENEFITS/LEAVE TIME	71,513	71,513	71,513	71,513	71,513	71,513	71,513	71,513	71,513	71,513	71,513
531-7312-490.01-03	BENEFITS/INSURANCE	102,196	118,368	121,919	125,677	129,344	133,224	137,221	141,338	145,578	149,945	154,443
531-7312-490.01-04	BENEFITS/RETIREMENT	46,803	66,794	68,798	70,862	72,988	75,177	77,433	79,756	82,148	84,613	87,151
531-7312-490.12-01	CAFETERIA BENEFITS	39,862	40,307	41,516	42,762	44,045	45,366	46,727	48,129	49,573	51,060	52,591
531-7312-490.12-08	SPECIAL ASSIGNMENT	-	317	327	336	346	357	367	379	390	402	414
531-7312-490.12-15	LONGEVITY PAY	-	2,206	2,272	2,340	2,411	2,483	2,557	2,634	2,713	2,794	2,878
531-7312-490.04-01	SALARIES/WAGES	10,656	10,716	11,037	11,369	11,710	12,061	12,423	12,795	13,179	13,575	13,982
531-7312-490.04-03	BENEFITS/INSURANCE	155	155	160	164	169	174	180	185	191	196	202
531-7312-490.04-04	BENEFITS/RETIREMENT	661	664	684	704	726	747	770	793	817	841	866
531-7312-490.05-01	SALARIES/WAGES	18,540	19,096	19,669	20,259	20,867	21,493	22,138	22,802	23,486	24,190	24,916
531-7312-490.05-02	ACCURED COMPTIME 1.0	5,150	5,304	5,463	5,627	5,796	5,970	6,149	6,333	6,523	6,719	6,921
531-7312-490.05-03	ACCURED COMPTIME 1.5	2,575	2,652	2,732	2,814	2,898	2,985	3,075	3,167	3,262	3,360	3,461
531-7312-490.11-12	STANDBY PAY	12,360	12,730	13,112	13,505	13,910	14,328	14,758	15,200	15,656	16,126	16,610
531-7312-490.11-13	CALL BACK PAY	1,545	1,591	1,639	1,688	1,739	1,791	1,845	1,900	1,957	2,016	2,076
	Total Salaries	592,310	660,714	680,535	700,951	721,980	743,639	765,948	788,927	812,595	836,972	862,082
COLLECTION - MATERIALS & SUPPLIES												
531-7312-490.23-10	M&S: GENERAL OFFICE	1,000	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305
531-7312-490.23-15	M&S: CHEM/PNTS/SOLV/LIUBR	11,000	11,000	11,330	11,670	12,020	12,381	12,752	13,135	13,529	13,934	14,353
531-7312-490.23-20	M&S: CLEANING/CUSTODIAL	400	400	412	424	437	450	464	478	492	507	522
531-7312-490.23-25	M&S: COMMUNICATIONS	1,000	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610
531-7312-490.23-30	M&S: ELECTRICAL/INSTRUMNT	8,000	8,000	8,240	8,487	8,742	9,004	9,274	9,552	9,839	10,134	10,438
531-7312-490.23-35	M&S: FOOD SUPPLIES	300	300	309	318	328	338	348	358	369	380	391
531-7312-490.23-40	M&S: HORTICULTURE/IRRIGAT	500	500	515	530	546	563	580	597	615	633	652
531-7312-490.23-50	M&S: MECHANICAL/SHOP/BLDG	4,000	6,000	6,180	6,365	6,556	6,753	6,956	7,164	7,379	7,601	7,829
531-7312-490.23-55	M&S: PUBLIC SAFETY	2,500	2,500	2,575	2,652	2,732	2,814	2,898	2,985	3,075	3,167	3,262
531-7312-490.25-10	ST&E: GENERAL OFFICE	5,000	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
531-7312-490.25-20	ST&E: CLEANING/CUSTODIAL	100	100	103	106	109	113	116	119	123	127	130
531-7312-490.25-25	ST&E: COMMUNICATIONS	1,000	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610
531-7312-490.25-30	ST&E: ELECTRICAL/INSTRUM	7,000	7,000	7,210	7,426	7,649	7,879	8,115	8,358	8,609	8,867	9,133
531-7312-490.25-40	ST&E: HORTICULTURE/IRRIGA	250	250	258	265	273	281	290	299	307	317	326
531-7312-490.25-50	ST&E: MECHANICAL/SHOP/BLD	15,000	20,000	20,600	21,218	21,855	22,510	23,185	23,881	24,597	25,335	26,095
531-7312-490.25-55	ST&E: PUBLIC SAFETY	2,500	3,500	3,605	3,713	3,825	3,939	4,057	4,179	4,305	4,434	4,567
531-7312-490.25-70	ST&E: OTHER SM TOOLS/IMPL	2,500	2,500	2,575	2,652	2,732	2,814	2,898	2,985	3,075	3,167	3,262
531-7312-490.41-01	BUILDING MAINTENANCE	13,202	19,489	20,074	20,676	21,296	21,935	22,593	23,271	23,968	24,688	25,429
531-7312-490.41-12	STORES	5,494	5,381	5,542	5,709	5,880	6,056	6,238	6,425	6,618	6,816	7,021
531-7312-490.41-14	MIS - SURCHARGE	85	85	88	90	93	96	99	101	105	108	111
531-7312-490.41-15	MIS SERVICES	3,660	4,336	4,466	4,600	4,738	4,880	5,027	5,177	5,333	5,493	5,657
531-7312-490.41-25	EQUIP-CITY VEHICLE	42,675	23,919	24,637	25,376	26,137	26,921	27,729	28,561	29,417	30,300	31,209
531-7312-490.41-29	EQUIP-CITY VEHICLE REPL	47,580	50,649	52,168	53,734	55,346	57,006	58,716	60,478	62,292	64,161	66,085
531-7312-490.41-32	EQUIP RPLCMNT-PC HARDWARE	918	981	1,010	1,041	1,072	1,104	1,137	1,171	1,207	1,243	1,280
531-7312-490.41-41	INSURANCE - PROPERTY CHR	961	772	795	819	844	869	895	922	949	978	1,007
531-7312-490.41-42	INSURANCE - LIABILITY CHG	9,472	9,074	9,346	9,627	9,915	10,213	10,519	10,835	11,160	11,495	11,840
531-7312-490.43-10	M&S: OFFICE EQUIPMENT	700	700	721	743	765	788	811	836	861	887	913
531-7312-490.43-15	M&S: COMMUNICATION EQUIP	3,000	9,000	9,270	9,548	9,835	10,130	10,433	10,746	11,069	11,401	11,743
531-7312-490.43-20	M&S: NON-OFFICE EQUIPMENT	5,000	10,000	10,300	10,609	10,927	11,255	11,593	11,941	12,299	12,668	13,048
531-7312-490.43-25	M&S: BUILDING/FACILITIES	15,000	10,000	10,300	10,609	10,927	11,255	11,593	11,941	12,299	12,668	13,048
531-7312-490.43-30	M&S: OTHER LAND IMPRV/MNT	5,000	8,000	8,240	8,487	8,742	9,004	9,274	9,552	9,839	10,134	10,438
531-7312-490.43-35	M&S: UTIL SVCS INFRASTR	35,000	35,000	36,050	37,132	38,245	39,393	40,575	41,792	43,046	44,337	45,667
531-7312-490.43-40	M&S: TRANSP INFRASTRUCT	5,000	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
531-7312-490.45-02	LEGAL	5,000	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
531-7312-490.45-30	CONSTRUCTION CONTRACT	10,000	10,000	10,300	10,609	10,927	11,255	11,593	11,941	12,299	12,668	13,048
531-7312-490.45-50	OTHER PROFESSIONAL SVCS	75,000	172,000	177,160	182,475	187,949	193,588	199,395	205,377	211,538	217,884	224,421
531-7312-490.46-01	LAB ANALYSIS SVC	4,000	-	-	-	-	-	-	-	-	-	-
531-7312-490.46-02	MED-LAB EXAM SVC	200	200	206	212	219	225	232	239	246	253	261
531-7312-490.48-05	GAS & ELECTRIC	45,000	35,000	36,050	37,132	38,245	39,393	40,575	41,792	43,046	44,337	45,667
531-7312-490.48-06	TELEPHONE SERVICE	1,200	1,200	1,2								

Table B-2 Sewer Operating Budget - Detail (Line Items with \$0 expenditures are not shown) City of Davis												
Account No.	Description	Adjusted (a)					Projected Budgets					
		FY '05-06	FY '06-07	FY '07-08	FY '08-09	FY '09-10	FY '10-11	FY '11-12	FY '12-13	FY '13-14	FY '14-15	FY '15-16
COLLECTION - CAPITAL OUTLAY												
531-7312-490.61-00	CAPOUTLY: VEHICLES	16,500	4,500	4,635	4,774	4,917	5,065	5,217	5,373	5,534	5,700	5,871
531-7312-490.62-00	CAPOUTLY: MAINT EQUIPMENT	-	-	-	-	-	-	-	-	-	-	-
531-7312-490.63-00	CAPOUTLY: FURNITURE	16,000	8,000	8,240	8,487	8,742	9,004	9,274	9,552	9,839	10,134	10,438
531-7312-490.65-00	CAPOUTLY: COMMUNICATN EQ	5,000	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
531-7312-490.66-00	SAFETY EQUIPMENT	10,000	-	-	-	-	-	-	-	-	-	-
531-7312-490.68-00	CAPOUTLY: BLDG/GRND EQUIP	25,000	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
531-7312-490.69-00	CAPOUTLY: STATNRY ELEC EQ	8,500	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
531-7312-490.7500	CAPOUTLY: Computer EQ	8,500	7,500	7,725	7,957	8,195	8,441	8,695	8,955	9,224	9,501	9,786
	Total Capital Outlay	89,500	35,000	36,050	37,132	38,245	39,393	40,575	41,792	43,046	44,337	45,667
TOTAL COLLECTION		1,131,757	1,251,150	1,288,684	1,327,345	1,367,165	1,408,180	1,450,426	1,493,938	1,538,756	1,584,919	1,632,467
WWTP SALARIES												
531-7313-490.01-01	SALARIES/WAGES	1,094,477	1,467,725	1,511,757	1,557,109	1,603,823	1,651,937	1,701,496	1,752,540	1,805,117	1,859,270	1,915,048
531-7313-490.01-02	BENEFITS:LEAVE TIME	283,022	-	-	-	-	-	-	-	-	-	-
531-7313-490.01-03	BENEFITS:INSURANCE	350,292	393,211	405,007	417,158	429,672	442,562	455,839	469,514	483,600	498,108	513,051
531-7313-490.01-04	BENEFITS:RETIREMENT	183,702	254,019	261,640	269,489	277,573	285,901	294,478	303,312	312,411	321,784	331,437
531-7313-490.12-01	CAFETERIA BENEFITS	147,951	157,903	162,640	167,519	172,545	177,721	183,053	188,544	194,201	200,027	206,028
531-7313-490.12-08	SPECIAL ASSIGNMENT	-	397	409	421	434	447	460	474	488	503	518
531-7313-490.12-15	LONGEVITY PAY	-	22,774	23,457	24,161	24,886	25,632	26,401	27,193	28,009	28,849	29,715
531-7313-490.04-01	SALARIES/WAGES	47,792	52,133	53,697	55,308	56,967	58,676	60,436	62,250	64,117	66,041	68,022
531-7313-490.04-03	BENEFITS:INSURANCE	693	756	779	802	826	851	876	903	930	958	986
531-7313-490.04-04	BENEFITS:RETIREMENT	3,060	3,336	3,436	3,539	3,645	3,755	3,867	3,983	4,103	4,226	4,353
531-7313-490.05-01	SALARIES/WAGES	26,265	27,052	27,864	28,699	29,560	30,447	31,361	32,302	33,271	34,269	35,297
531-7313-490.05-02	ACCURD COMPTIME 1.0	5,253	5,410	5,572	5,739	5,912	6,089	6,272	6,460	6,654	6,853	7,059
531-7313-490.05-03	ACCURD COMPTIME 1.5	5,150	5,304	5,463	5,627	5,796	5,970	6,149	6,333	6,523	6,719	6,921
531-7313-490.11-12	STANDBY PAY	10,300	10,609	10,927	11,255	11,593	11,941	12,299	12,668	13,048	13,439	13,842
531-7313-490.11-13	CALL BACK PAY	8,240	8,487	8,742	9,004	9,274	9,552	9,839	10,134	10,438	10,751	11,074
	Total Salaries	2,166,197	2,409,116	2,481,390	2,555,831	2,632,506	2,711,482	2,792,826	2,876,611	2,962,909	3,051,796	3,143,350
WWTP MATERIALS & SUPPLIES												
531-7313-490.23-10	M&S: GENERAL OFFICE	3,500	3,500	3,605	3,713	3,825	3,939	4,057	4,179	4,305	4,434	4,567
531-7313-490.23-15	M&S: CHEM/PNTS/SOLV/LUBR	150,000	150,000	154,500	159,135	163,909	168,826	173,891	179,108	184,481	190,016	195,716
531-7313-490.23-20	M&S: CLEANING/CUSTODIAL	4,000	4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067	5,219
531-7313-490.23-25	M&S: COMMUNICATIONS	3,500	3,500	3,605	3,713	3,825	3,939	4,057	4,179	4,305	4,434	4,567
531-7313-490.23-30	M&S: ELECTRICAL/INSTRUMNT	13,000	13,000	13,390	13,792	14,205	14,632	15,071	15,523	15,988	16,468	16,962
531-7313-490.23-35	M&S: FOOD SUPPLIES	1,700	4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067	5,219
531-7313-490.23-40	M&S: HORTICULTURE/IRRIGAT	25,000	25,000	25,750	26,523	27,318	28,138	28,982	29,851	30,747	31,669	32,619
531-7313-490.23-45	M&S: LAB/ENGINEERING	10,000	10,000	10,300	10,609	10,927	11,255	11,593	11,941	12,299	12,668	13,048
531-7313-490.23-50	M&S: MECHANICAL/SHOP/BLDG	24,000	24,000	24,720	25,462	26,225	27,012	27,823	28,657	29,517	30,402	31,315
531-7313-490.23-55	M&S: PUBLIC SAFETY	2,200	3,000	3,090	3,183	3,278	3,377	3,478	3,582	3,690	3,800	3,914
531-7313-490.25-10	ST&E: GENERAL OFFICE	1,000	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305
531-7313-490.25-20	ST&E: CLEANING/CUSTODIAL	250	250	258	265	273	281	290	299	307	317	326
531-7313-490.25-25	ST&E: COMMUNICATIONS	4,000	8,000	8,240	8,487	8,742	9,004	9,274	9,552	9,839	10,134	10,438
531-7313-490.25-30	ST&E: ELECTRICAL/INSTRUM	14,583	25,000	25,750	26,523	27,318	28,138	28,982	29,851	30,747	31,669	32,619
531-7313-490.25-40	ST&E: HORTICULTURE/IRRIG	3,000	3,000	3,090	3,183	3,278	3,377	3,478	3,582	3,690	3,800	3,914
531-7313-490.25-45	ST&E: LAB/ENGINEERING	6,500	6,500	6,695	6,896	7,103	7,316	7,535	7,761	7,994	8,234	8,481
531-7313-490.25-50	ST&E: MECHANICAL/SHOP/BLD	35,000	35,000	36,050	37,132	38,245	39,393	40,575	41,792	43,046	44,337	45,667
531-7313-490.25-55	ST&E: PUBLIC SAFETY	3,500	3,500	3,605	3,713	3,825	3,939	4,057	4,179	4,305	4,434	4,567
531-7313-490.25-70	ST&E: OTHER SM TOOLS/IMPL	4,000	4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067	5,219
531-7313-490.41-01	BUILDING MAINTENANCE	23,945	35,336	36,396	37,488	38,613	39,771	40,964	42,193	43,459	44,763	46,105
531-7313-490.41-12	STORES	15,333	14,992	15,442	15,905	16,382	16,874	17,380	17,901	18,438	18,991	19,561
531-7313-490.41-14	MIS - SURCHARGE	269	269	277	285	294	303	312	321	331	341	351
531-7313-490.41-15	MIS SERVICES	11,378	13,443	13,846	14,262	14,690	15,130	15,584	16,052	16,533	17,029	17,540
531-7313-490.41-25	EQUIP-CITY VEHICLE	55,793	31,266	32,204	33,170	34,165	35,190	36,246	37,333	38,453	39,607	40,795
531-7313-490.41-29	EQUIP-CITY VEHICLE REPL	28,216	30,038	30,939	31,867	32,823	33,808	34,822	35,867	36,943	38,051	39,193
531-7313-490.41-32	EQUIP RPLCMNT-PC HARDWARE	2,855	3,059	3,151	3,245	3,343	3,443	3,546	3,653	3,762	3,875	3,991
531-7313-490.41-41	INSURANCE - PROPERTY CHRNG	2,991	2,896	2,983	3,072	3,165	3,259	3,357	3,458	3,562	3,669	3,779
531-7313-490.41-42	INSURANCE - LIABILITY CHG	31,547	26,193	26,979	27,788	28,622	29,480	30,365	31,276	32,214	33,181	34,176
531-7313-490.43-10	M&RS: OFFICE EQUIPMENT	1,000	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305
531-7313-490.43-15	M&RS: COMMUNICATION EQUIP	56,000	100,000	103,000	106,090	109,273	112,551	115,927	119,405	122,987	126,677	130,477
531-7313-490.43-20	M&RS: NON-OFFIC EQUIPMENT	80,000	60,000	61,800	63,654	65,564	67,531	69,556	71,643	73,792	76,006	78,286
531-7313-490.43-25	M&RS: BUILDING/FACILITIES	30,000	30,000	30,900	31,827	32,782	33,765	34,778	35,822	36,896	38,003	39,143
531-7313-490.43-30	M&RS: OTHER LAND IMPRVMT	55,000	55,000	56,650	58,350	60,100	61,903	63,760	65,673	67,643	69,672	71,763
531-7313-490.43-35	M&RS: UTIL SVCS INFRASTR	40,000	40,000	41,200	42,436	43,709	45,020	46,371	47,762	49,195	50,671	52,191
531-7313-490.43-40	M&RS: TRANSP INFRASTRUCTR	6,000	-	-	-	-	-	-	-	-	-	-
531-7313-490.45-02	LEGAL	55,000	35,000	36,050	37,132	38,245	39,393	40,575	41,792	43,046	44,337	45,667
531-7313-490.45-07	ADVERTISING	5,000	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
531-7313-490.45-30	CONSTRUCTION CONTRACT	68,000	37,500	38,625	39,784	40,977	42,207	43,473	44,777	46,120	47,504	48,929
531-7313-490.45-50	OTHER PROFESSIONAL SVCS	240,000	315,000	324,500	334,184	344,209	354,535	365,171	376,126	387,410	399,033	411,004
531-7313-490.46-01	LAB ANALYSIS SVC	200,000	240,000	247,200	254,616	262,254	270,122	278,226	286,573	295,170	304,025	313,146
531-7313-490.46-02	MED-LAB EXAM SVC	2,000	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610
531-7313-490.46-05	PRINTING & BINDING	3,000	3,000	3,090	3,183	3,278	3,377	3,478	3,582	3,690	3,800	3,914
531-7313-490.46-06	PHOTO & BLUEPRINT	2,500	2,500	2,575	2,652	2,732	2,814	2,898	2,985	3,075	3,167	3,262
531-7313-490.46-10	MIS (OUTSIDE SERVICES)	8,000	12,000	12,360	12,731	13,113	13,506	13,911	14,329	14,758	15,201	15,657
531-7313-490.48-02	LAUNDRY SERVICES	7,500	7,500	7,725	7,957	8,195	8,					

Table B-2 Sewer Operating Budget - Detail (Line Items with \$0 expenditures are not shown) City of Davis												
Account No.	Description	Adjusted (a)		Projected Budgets								
		FY '05-06	FY '06-07	FY '07-08	FY '08-09	FY '09-10	FY '10-11	FY '11-12	FY '12-13	FY '13-14	FY '14-15	FY '15-16
WWTP CAPITAL OUTLAY												
531-7313-490.61-00	CAPOUTLY: VEHICLES	47,500	8,000	8,240	8,487	8,742	9,004	9,274	9,552	9,839	10,134	10,438
531-7313-490.63-00	CAPOUTLY: FURNITURE	8,000	8,000	8,240	8,487	8,742	9,004	9,274	9,552	9,839	10,134	10,438
531-7313-490.67-00	SHOP & LAB EQUIPMENT		6,000	6,180	6,365	6,556	6,753	6,956	7,164	7,379	7,601	7,829
531-7313-490.69-00	CAPOUTLY: STATNRY ELEC EQ	45,417	35,000	36,050	37,132	38,245	39,393	40,575	41,792	43,046	44,337	45,667
531-7313-490.75-00	CAPOUTLY: COMPUTER EQUIP	30,000	30,000	30,900	31,827	32,782	33,765	34,778	35,822	36,896	38,003	39,143
	Total Capital Outlay	130,917	87,000	89,610	92,298	95,067	97,919	100,857	103,883	106,999	110,209	113,515
TOTAL WWTP		4,213,214	4,507,958	4,643,197	4,782,493	4,925,968	5,073,747	5,225,959	5,382,738	5,544,220	5,710,547	5,881,863
WW PRE-TREATMENT SALARIES												
531-7314-490.01-01	SALARIES/WAGES	38,408	75,208	77,464	79,788	82,182	84,647	87,187	89,802	92,496	95,271	98,129
531-7314-490.01-02	BENEFITS:LEAVE TIME	10,818										
531-7314-490.01-03	BENEFITS:INSURANCE	9,873	19,221	19,798	20,392	21,003	21,633	22,282	22,951	23,639	24,349	25,079
531-7314-490.01-04	BENEFITS:RETIREMENT	6,681	13,118	13,512	13,917	14,334	14,764	15,207	15,664	16,133	16,617	17,116
531-7314-490.12-01	CAFETERIA BENEFITS	5,799	4,658	4,798	4,942	5,090	5,243	5,400	5,562	5,729	5,901	6,078
531-7314-490.12-15	LONGEVITY PAY		87	90	92	95	98	101	104	107	110	114
531-7314-490.05-01	SALARIES/WAGES	309	11,290	11,629	11,978	12,337	12,707	13,088	13,481	13,885	14,302	14,731
531-7314-490.04-03	BENEFITS: INSURANCE		164	169	174	179	185	190	196	202	208	214
531-7314-490.04-04	BENEFITS: RETIREMENT		700	721	743	765	788	811	836	861	887	913
531-7314-490.05-01	SALARIES/WAGES		318	328	337	347	358	369	380	391	403	415
531-7314-490.05-02	ACCURD COMPTIME 1.0	309	318	328	338	348	358	369	380	391	403	415
531-7314-490.05-03	ACCURD COMPTIME 1.5	103	106	109	113	116	119	123	127	130	134	138
531-7314-490.11-12	STANDBY PAY	515	530	546	563	580	597	615	633	652	672	692
531-7314-490.11-13	CALL BACK PAY	20	20	21	21	22	23	23	24	25	25	26
	Total Salaries	72,835	125,739	129,511	133,396	137,398	141,520	145,766	150,139	154,643	159,282	164,061
WW PRE-TREATMENT MATERIALS & SUPPLIES												
531-7314-490.23-10	M&S: GENERAL OFFICE	200	200	206	212	219	225	232	239	246	253	261
531-7314-490.23-25	M&S: COMMUNICATIONS	200	200	206	212	219	225	232	239	246	253	261
531-7314-490.23-30	M&S: ELECTRICAL/INSTRUMNT		200	206	212	219	225	232	239	246	253	261
531-7314-490.23-35	M&S: FOOD SUPPLIES		500	515	530	546	563	580	597	615	633	652
531-7314-490.23-45	M&S: LAB/ENGINEERING		250	258	265	273	281	290	299	307	317	326
531-7314-490.23-50	M&S: MECHANICAL/SHOP/BLDG	50	500	515	530	546	563	580	597	615	633	652
531-7314-490.25-10	ST&E: GENERAL OFFICE	5,000	3,500	3,605	3,713	3,825	3,939	4,057	4,179	4,305	4,434	4,567
531-7314-490.25-25	ST&E: COMMUNICATIONS		4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067	5,219
531-7314-490.25-30	ST&E: ELECTRICAL/INSTRUMN		500	515	530	546	563	580	597	615	633	652
531-7314-490.25-45	ST&E: LAB/ENGINEERING		200	206	212	219	225	232	239	246	253	261
531-7314-490.25-50	ST&E: MECHANICAL/SHOP/BLD		1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305
531-7314-490.25-55	ST&E: PUBLIC SAFETY		100	103	106	109	113	116	119	123	127	130
531-7314-490.25-60	ST&E: RECREATION/SPECEVNT		50	52	53	55	56	58	60	61	63	65
531-7314-490.25-70	ST&E: SM TOOLS/IMPL		100	103	106	109	113	116	119	123	127	130
531-7314-490.41-01	BUILDING MAINTENANCE	506	734	756	779	802	826	851	876	903	930	958
531-7314-490.41-12	STORES	621	602	620	639	658	678	698	719	740	763	785
531-7314-490.41-14	MIS - SURCHARGE	6	6	6	7	7	7	7	7	8	8	8
531-7314-490.41-15	MIS SERVICES	275	312	321	331	341	351	362	373	384	395	407
531-7314-490.41-25	EQUIP-CITY VEHICLE	1,631	912	939	968	997	1,026	1,057	1,089	1,122	1,155	1,190
531-7314-490.41-29	EQUIP-CITY VEHICLE REPL	926	988	1,018	1,048	1,080	1,112	1,145	1,180	1,215	1,252	1,289
531-7314-490.41-32	EQUIP RPLCMNT-PC HARDWARE	68	72	74	76	79	81	83	86	89	91	94
531-7314-490.41-41	INSURANCE - PROPERTY CHRG	72	166	171	176	181	187	192	198	204	210	217
531-7314-490.41-42	INSURANCE - LIABILITY CHG	933	881	907	935	963	992	1,021	1,052	1,084	1,116	1,150
531-7314-490.43-20	M&RS: NON-OFFIC EQUIPMENT	1,000	500	515	530	546	563	580	597	615	633	652
531-7314-490.43-25	M&RS: BUILDING/FACILITIES	2,500										
531-7314-490.45-02	LEGAL	5,000	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
531-7314-490.45-07	ADVERTISING	300	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610
531-7314-490.45-50	OTHER PROFESSIONAL SVCS	70,000	110,000	113,300	116,699	120,200	123,806	127,520	131,346	135,286	139,345	143,525
531-7314-490.46-01	LAB ANALYSIS SVC	10,000	50,000	51,500	53,045	54,636	56,275	57,964	59,703	61,494	63,339	65,239
531-7314-490.46-05	PRINTING & BINDING	12,000	10,000	10,300	10,609	10,927	11,255	11,593	11,941	12,299	12,668	13,048
531-7314-490.48-06	TELEPHONE SERVICE	100	100	103	106	109	113	116	119	123	127	130
531-7314-490.48-08	CELLULAR PHONE SERVICE	500	500	515	530	546	563	580	597	615	633	652
531-7314-490.48-10	HAZARDOUS WASTE DISPOSAL	5,000	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
531-7314-490.48-11	OUTSIDE POSTAGE/DELIVERY	5,000	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
531-7314-490.49-10	EQUIP OPER RENT/LEASE	1,000	2,500	2,575	2,652	2,732	2,814	2,898	2,985	3,075	3,167	3,262
531-7314-490.50-08	FEES/PERMITS REQUIRED	12,000	13,000	13,390	13,792	14,205	14,632	15,071	15,523	15,988	16,468	16,962
531-7314-490.54-02	EDUCATION REIMBURSEMENT	300	300	309	318	328	338	348	358	369	380	391
531-7314-490.54-03	MEMBERSHIP FEES/DUES	500	500	515	530	546	563	580	597	615	633	652
531-7314-490.54-04	MISC TRAVEL/MEETINGS	200	1,200	1,236	1,273	1,311	1,351	1,391	1,433	1,476	1,520	1,566
531-7314-490.54-06	SUBSCRIPTION/PUBLICATIONS	500	300	309	318	328	338	348	358	369	380	391
531-7314-490.54-07	STAFF DEVELOPMNT/TRAINING	6,500	6,500	6,695	6,896	7,103	7,316	7,535	7,761	7,994	8,234	8,481
531-7314-490.59-30	CONTRIBUTIONS	5,000	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
531-7314-490.59-33	CITIZEN SERV RECOG	3,000	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305
	Total Material and Supplies	150,888	234,373	241,404	248,647	256,106	263,789	271,703	279,854	288,249	296,897	305,804
WW PRE TREATMENT CAPITAL OUTLAY												
531-7314-490.61-00	CAPOUTLY: VEHICLES		10,900	11,227	11,564	11,911	12,268	12,636	13,015	13,406	13,808	14,222
531-7314-490.65-00	CAPOUTLY: COMMUNICATN EQ	3,500										
531-7314-490.67-00	SHOP & LAB EQUIPMENT	9,000	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
531-7314-490.75-00	CAPOUTLY: COMPUTER EQUIP	3,500										
	Total Capital Outlay	16,000	15,900	16,377	16,868	17,374	17,896	18,432	18,985	19,555	20,142	20,746
TOTAL WW PRE-TREATMENT		239,723	376,012	387,292	398,911	410,878	423,205	435,901	448,978	462,447	476,321	490,610
INTERDEPARTMENTAL CHARGES												
531-7365-490.88-01	OVERHEAD SUPPORT COST	284,132	319,735	329,327	339,207	349,383	359,865	370,660	381,780	393,234	405,031	417,182
531-7365-490.88-02	IN LIEU PROPERTY TAX	96,804	97,639	100,568	103,585	106,693	109,894	113,190	116,586	120,084	123,686	127,397
531-7365-490.88-03	ENTERPR FRANCHISE FEE	91,287	108,677	111,937	115,295	118,754	122,317	125,986	129,766	133,659	137,669	141,799
TOTAL INTERDEPARTMENTAL CHARGES		472,223	526,051	541,833	558,088	574,830	592,075	609,837	628,132	646,976	666,386	686,377

Appendix C – Cost-of-Service Analysis – Supporting Data

Water Consumption

Several types of water consumption data were used in the sewer rate analysis. The following tables and graphs provide information about water consumption that was used in the analysis.

Table WU-1 Summary of Residential & Commercial Winter and Annual Average Water Use (FY'06-07) City of Davis						
Customer Class	Number of Accounts (a)	Number of Meters (a)	Average Winter Water Usage (a) <i>(hcf/mtr/2 months)</i>	Avg Winter Usage by Class (b) <i>(hcf/class/mo.)</i>	Annualized Water Usage Based on the Winter Rate <i>(hcf/class/yr.) (mgd)</i>	
Residential						
Single Family	12,127	12,263	16.5	101,170	1,214,037	2.488
Single-Family Condo	1,276	1,346	12.0	8,103	97,235	0.199
M2 Duplex	523	539	25.0	6,738	80,850	0.166
M3 Triplex	60	60	41.0	1,230	14,760	0.030
M4 Quadplex	87	107	45.0	2,408	28,890	0.059
M5 5-10 Units MF	65	70	53.0	1,855	22,260	0.046
M5 11-19 Units MF	34	44	100.0	2,200	26,400	0.054
M5 20-49 Units MF	44	89	143.8	6,397	76,763	0.157
M5 50+ Units MF	74	153	489.0	37,409	448,902	0.920
MH Mobile Homes	5	6	909.8	2,729	32,751	0.067
Subtotal - Residential	14,295	14,677	1,835.0	170,237	2,042,848	4.186
Commercial						
C1 Office/Retail	225	263	82.7	9,308	111,692	0.229
C1 (Converted Industrial)	4	4	76.5	153	1,836	0.004
C2 Laundry	3	3	260.3	391	4,686	0.010
C3 All Other	146	182	94.1	6,868	82,416	0.169
C3 (Converted Industrial)	16	16	73.9	592	7,098	0.015
C4 Convalescent Hospital	3	5	1,259.0	1,889	22,662	0.046
C5 Auto/Service Station	47	63	98.5	2,315	27,774	0.057
C5 (Converted Industrial)	2	2	237.5	238	2,850	0.006
C6 Restaurants	79	91	216.7	8,559	102,708	0.210
C7 Industrial	2	2	98.0	98	1,176	0.002
Subtotal - Residential	527	631	2,497.3	30,408	364,898	0.748
Total Resid. & Comm.	14,822		4,332	200,645	2,407,746	4.934

a. Residential usage is from City billing records. Commercial data is Class Average Winter Usage divided by Number of Meters.
b. Number of meters times average winter usage per meter per 2 months divided by 2.

Table BD-1 Summary of City Data on Winter Water Use, Residential Customers City of Davis				
Residential Class	Winter Qtr Avg. Water Use (a,b) <i>(hcf/mtr/2 mo.)</i>	Billing Units per Meter (c) <i>(billing units)</i>	Avg. Use per Billing Unit <i>(hcf/mtr/2 mo.)</i>	Avg. Use as % of SFR <i>(%)</i>
Single Family	16.5	0.99	16.7	100%
Condos	12.04	0.95	12.7	76%
M2 Duplex	25	1.94	12.9	77%
M3 Triplex	41	3.00	13.7	82%
M4 Quadplex	45	3.25	13.8	83%
M5 5 + units				
5-10 units	53	6.67	7.9	48%
11-19 units	100	11.20	8.9	53%
20-49 units	143.8	17.18	8.4	50%
50+ units	489	48.74	10.0	60%
Average for 5+ Units	268.9	27.94	9.6	58%
Mobile Homes	909.75	92.17	9.9	59%

a. Winter Quarter Average is calculated per water meter ((Nov-Dec 2005 water use)+(Jan-Feb 2006 water use))/2

Source of data: City records (Excel file: Copy of new_for_greg), 9-29-06.

b. Note the average is use over a 2-month period.

c. From Table BD-2.

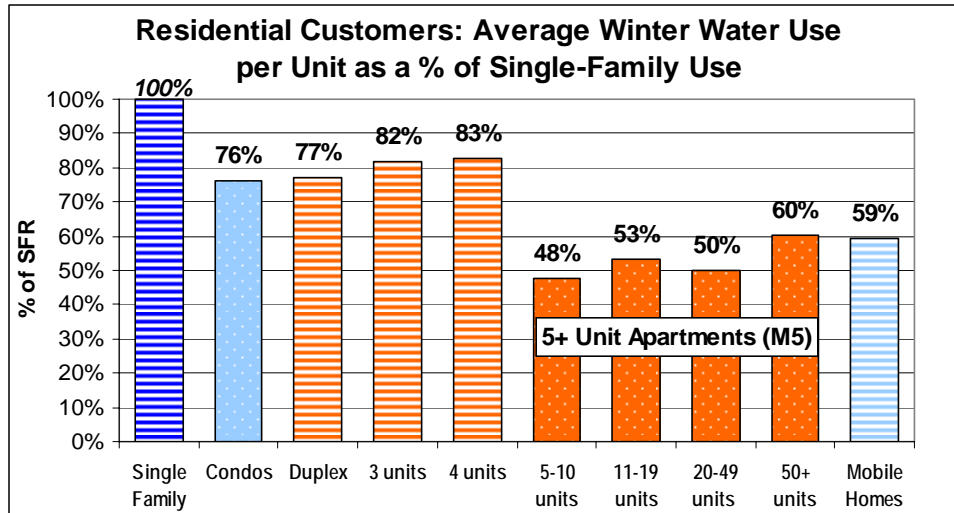


Table BD-2
Summary of City Data on Residential Accounts, Meters and Billing Units (FY'06-07)
City of Davis

Customer Class	No. of Accounts (a)	No. of Meters (b)	No. of Units Billed (c)	Avg. No. of Units per Meter (d)
	(accounts)	(meters)	(billing units)	(billing units)
Single Family	12,127	12,263	12,127	0.99
Condos	1,276	1,346	1,276	0.95
M2 Duplex	523	539	1,046	1.94
M3 Triplex	60	60	180	3.00
M4 Quadplex	87	107	348	3.25
M5 5 + units				
5-10 units	65	70	467	6.67
11-19 units	34	44	493	11.20
20-49 units	44	89	1,529	17.18
50+ units	<u>74</u>	<u>153</u>	<u>7,457</u>	<u>48.74</u>
Subtotal - 5+ Units	217	356	9,946	27.94
Mobile Homes	5	6	553	92.17
Total - Residential	14,295	14,677	25,476	--

a. Source of data except 5+ units: City records (Excel file: Copy of 2006_sewer_rate_study_billing_data), 9-20-06.
 b. Source: City Records (Excel file: Copy for Greg, worksheet "#8 number of account by mtr sze"), 9/20/06.
 c. Source: City records (Excel file: "Copy of 2006_sewer_rate_study_billing_data", worksheet: "Accounts"), 9-20-06.
 d. "No. of Units Billed" divided by "No. of Meters".

Customer Wastewater Flow and Loadings Characteristics

The key data such as water consumption, flow generation, and strength (BOD) loadings are summarized in the next three tables.

Table AL-S1 Estimated Customer Class Wastewater Characteristics & Annual Loadings (FY'06-07) City of Davis								
Customer Class	Total # of Accounts (a)	Estimated Effluent (Flow)			Estimated BOD (e)		Estimated TSS (e)	
		Winter Water Use			Typical BOD (mg/L)	Annual BOD (lbs./yr)	Typical TSS (mg/L)	Annual TSS (lbs./yr)
		(hcf/yr) (b)	(hcf/yr) (c)	MGD (d)				
Residential								
Single Family	12,127	1,214,037	1,506,524	3.087	162	1,523,348	194	1,827,864
Single-Family Condo	1,276	97,235	120,661	0.247	162	122,008	194	146,398
M2 Duplex	523	80,850	100,328	0.206	162	101,449	194	121,728
M3 Triplex	60	14,760	18,316	0.038	162	18,521	194	22,223
M4 Quadplex	87	28,890	35,850	0.073	162	36,251	194	43,497
M5 5 + units	217	574,325	712,691	1.461	162	720,650	194	864,708
MH Mobile Homes	5	32,751	40,641	0.083	162	41,095	194	49,310
Subtotal	14,295	2,042,848	2,535,013	5.195	--	2,563,322	--	3,075,728
Commercial								
C1 Office/Retail	229	113,528	140,880	0.289	105	92,594	69	60,775
C2 Laundry	3	4,686	5,815	0.012	122	4,410	95	3,449
C3 All Other	162	89,514	111,080	0.228	105	73,008	69	47,919
C4 Conval. Hospital	3	22,662	28,122	0.058	203	35,545	86	15,164
C5 Auto/Service Station	49	30,624	38,002	0.078	146	34,584	242	57,379
C6 Restaurants	79	102,708	127,453	0.261	810	644,379	519	412,368
C7 Industrial	2	102	127	0.0003	200	158	275	218
Subtotal	527	363,825	451,478	0.925	--	884,678	--	597,272
Total	14,822	2,406,672	2,986,364	6.120	--	3,448,000	--	3,673,000
Average Annual Loadings (f)				6.120	209	3,448,000	230	3,673,000

a. Current as of September 2006, from City records. In other tables, these accounts are adjusted to include growth and approximate accounts as of 1-1-07.
 b. City data for the average winter use per meter from Table WU-1 "Summary of Residential & Commercial Winter and Annual Average Water Use".
 Adjustment were made to reflect the additional C1, C3 and C5 commercial customers reclassified from the industrial class.
 c. The winter water consumption values have been adjusted so that annual total equals the average annual plant flow of 5.6 mgd.
 d. Million Gallons per Day (MGD) of plant flow based on a conversion of the Annual HCF.
 e. The typical BOD and TSS mg/L values per State guidelines are used but have been adjusted so that total annual pounds equal the average annual plant loadings.
 f. Based on 2004 Annual Average flow of 5.96 mgd from Table 2.5, page 2-5 in Master Plan, Nov. 11, 2005, and increases based on increase in dwelling units (25,732 from current billing records vs. 25,072, Master Plan Table 2.1). BOD and TSS based on annual average lbs/day in Master Plan Tables 2.10 and 2.11.

Table AL-S2 Estimated Customer Class Wastewater Characteristics & Annual Loadings (FY'07-08) City of Davis								
Customer Class	Total # of Accounts (a,b)	Estimated Effluent (Flow)			Estimated BOD (f)		Estimated TSS (f)	
		Winter Water Use			Typical BOD (mg/L)	Annual BOD (lbs./yr)	Typical TSS (mg/L)	Annual TSS (lbs./yr)
		(hcf/yr) (b,c)	(hcf/yr) (c,d)	MGD (e)				
Residential								
Single Family	12,248	1,226,177	1,521,589	3.118	162	1,538,581	194	1,846,143
Single-Family Condo	1,289	98,207	121,868	0.250	162	123,229	194	147,862
M2 Duplex	528	81,659	101,332	0.208	162	102,463	194	122,946
M3 Triplex	61	14,908	18,499	0.038	162	18,706	194	22,445
M4 Quadplex	88	29,179	36,209	0.074	162	36,613	194	43,932
M5 5 + units	219	580,068	719,818	1.475	162	727,857	194	873,355
MH Mobile Homes	5	33,079	41,048	0.084	162	41,506	194	49,803
Subtotal	14,438	2,063,276	2,560,363	5.247	--	2,588,955	--	3,106,485
Commercial								
C1 Office/Retail	231	114,664	142,289	0.292	105	93,520	69	61,383
C2 Laundry	3	4,733	5,873	0.012	122	4,454	95	3,484
C3 All Other	164	90,409	112,191	0.230	105	73,738	69	48,398
C4 Conval. Hospital	3	22,889	28,403	0.058	203	35,900	86	15,316
C5 Auto/Service Station	49	30,930	38,382	0.079	146	34,930	242	57,952
C6 Restaurants	80	103,735	128,727	0.264	810	650,823	519	416,492
C7 Industrial	2	103	128	0.000	200	160	275	220
Subtotal	532	367,463	455,993	0.934	--	893,525	--	603,245
Total	14,970	2,430,739	3,016,130	6.181	--	3,482,480	--	3,709,730
Average Annual Loadings (c)				6.181	209	3,482,480	230	3,709,730

a. Current as of September 2006, from City records. In other tables, these accounts are adjusted to include growth and approximate accounts as of 1-1-07.
 b. Includes projected growth rate of 1.00%
 c. Estimates from Table AL-S1, Estimated Customer Class Wastewater Characteristics & Annual Loadings (FY'06-07), plus growth rate.
 d. The winter water consumption values have been adjusted so that annual total equals the average annual plant flow of 5.6 mgd.
 e. Million Gallons per Day (MGD) of plant flow based on a conversion of the Annual HCF.
 f. The typical BOD and TSS mg/L values from Table AL-S1, Estimated Customer Class Wastewater Characteristics & Annual Loadings (FY'06-07).

Comparison of Customer Class Effluent Strengths						
	Brown & Caldwell (1998)		State Guidelines		Foresight - 2006 Study	
	Typical BOD	Typical TSS	Typical BOD	Typical TSS	Typical BOD	Typical TSS
Residential	<i>(mg/L)</i>	<i>(mg/L)</i>	<i>(mg/L)</i>	<i>(mg/L)</i>	<i>(mg/L)</i>	<i>(mg/L)</i>
Single Family	158	190	175 to 250	175 to 250	162	194
Single-Family Condo	158	190	175 to 250	175 to 250	162	194
M2 Duplex	158	190	175 to 250	175 to 250	162	194
M3 Triplex	158	190	175 to 250	175 to 250	162	194
M4 Quadplex	158	190	175 to 250	175 to 250	162	194
M5 5 + units	158	190	175 to 250	175 to 250	162	194
MH Mobile Homes	158	190	175 to 250	175 to 250	162	194
Commercial						
C1 Office/Retail	121	150	130	80	105	69
C2 Laundry	139	110	150	110	122	95
C3 All Other	121	150	130	80	105	69
C4 Conval. Hospital	232	100	250	100	203	86
C5 Auto/Service Station	167	280	180	280	146	242
C6 Restaurants	929	600	1000	600	810	519
C7 Industrial	253	318	NA	NA	200	275

Cost Allocations

The following table summarizes the functional cost allocation used in analysis. This table is a summary of line-by-line cost allocations for each budget line item. In general, the results of a more detailed engineering analysis of plant and equipment prepared by Brown & Caldwell in 1998 were used for many of these allocations.

Table CA-1 Summary of Functional Cost Allocation of the Sewer Operating Budget City of Davis										
Description	FY '07-08 Projected	Allocation Percentages (a)				Allocated Costs (b)				
		C.S.	Flow	BOD	TSS	Customer Ser.	Flow	BOD	TSS	Total
O&M Expenses										
Total Collection	\$1,288,684	0%	100%	0%	0%	\$0	\$1,288,684	\$0	\$0	\$1,288,684
Total WWTP	\$4,643,197	0%	85%	10%	5%	\$0	\$3,951,764	\$454,638	\$236,795	\$4,643,197
Total WW Pre-Treatment	\$387,292	0%	27%	37%	37%	\$0	\$103,113	\$142,090	\$142,090	\$387,292
Total Inter-Departmental Charges	\$541,833	50%	42%	5%	3%	\$270,916	\$229,090	\$25,583	\$16,244	\$541,833
Total Sewer Division O&M	\$6,861,006	4%	81%	9%	6%	\$270,916	\$5,572,651	\$622,311	\$395,128	\$6,861,006
Other Division (531) Expenses	\$335,562	25%	38%	26%	11%	\$83,171	\$126,195	\$88,337	\$37,859	\$335,562
Existing Debt Service	\$597,482	0%	61%	26%	12%	\$0	\$364,858	\$158,185	\$74,440	\$597,482
Transfers to Capital Funds	\$876,000	0%	100%	0%	0%	\$0	\$876,000	\$0	\$0	\$876,000
Total Revenue Requirements	\$8,670,050	4.1%	80.0%	10.0%	5.9%	\$354,088	\$6,939,704	\$868,832	\$507,427	\$8,670,050

a. Percentages are the allocated costs divided by the projected budget dollars.
b. Results are detailed cost allocations for each budget item. Allocation %'s relied on previous engineering analysis performed by Brown & Caldwell (1998 study).

Cost-of-Service Rate Calculation Tables

The following tables document the process of using the revenue requirements, the functionalized unit costs, and the amount of flow and BOD each customer class is responsible for to calculate individual rates for the residential, commercial, and industrial customers. This analysis is based on the revenue requirements for FY'07-08 and, therefore, meets the net revenue requirement for that year. Once the cost allocations and relative differences in the rate for each customer class are calculated, the actual rate increases are determined by the total revenue needed per the financial plan.

There is no difference in the commercial rates for the two cost-of-service rate alternatives (i.e., #1 and #2), while residential rates are different because the second rate alternative uses a volume-based charges that relies on residential winter water consumption to determine each customer's monthly bill.

The table below shows the use of the functionalized costs to calculate residential flat rates and commercial rates for COS Rate Alternative #1.

Table COS-S3 Calculation of Monthly Fixed and Variable Sewer Rates (FY'07-08) City of Davis											
Customer Classes	Total Revenue Req't. (a)	No. of Accts or Billing Units (BU)		Annual Cost Per Acct or BU \$/yr	Mo. Flat Rate Per BU \$/mo.	Annual Volume-Based Revenue Req't's.				Winter Water Use (hcf/yr) (c)	Variable Rates (\$/hcf) (d)
		Accounts (Accts) (b)	Billing Units (BU) (b)			Flow (\$/yr)	BOD (\$/yr)	TSS (\$/yr)	Total \$ (\$/yr)		
Residential											
Single Family	\$4,426,788	12,248	--	\$361.43	\$30.12	--	--	--	--	--	--
Single-Family Condo	\$361,838	1,289	--	\$280.71	\$23.39	--	--	--	--	--	--
M2 Duplex	\$288,002	--	1,056	\$272.73	\$22.73	--	--	--	--	--	--
M3 Triplex	\$51,741	--	183	\$282.74	\$23.56	--	--	--	--	--	--
M4 Quadplex	\$100,530	--	352	\$285.60	\$23.80	--	--	--	--	--	--
M5 5 + units	\$1,962,310	--	10,045	\$195.35	\$16.28	--	--	--	--	--	--
MH Mobile Homes	<u>\$111,724</u>	--	559	<u>\$199.86</u>	\$16.66	--	--	--	--	--	--
Subtotal - Residential	\$7,302,932	25,732		--	--	--	--	--	--	--	--
Commercial											
C1 Office/Retail	\$364,554	231	--	\$23.65	\$1.97	\$327,362	\$23,332	\$8,396	\$359,090	114,664	\$3.13
C2 Laundry	\$15,171	3	--	\$23.65	\$1.97	\$13,512	\$1,111	\$477	\$15,100	4,733	\$3.19
C3 All Other	\$287,012	164	--	\$23.65	\$1.97	\$258,116	\$18,397	\$6,620	\$283,133	90,409	\$3.13
C4 Conval. Hospital	\$76,469	3	--	\$23.65	\$1.97	\$65,346	\$8,957	\$2,095	\$76,398	22,889	\$3.34
C5 Auto/Service Station	\$106,105	49	--	\$23.65	\$1.97	\$88,305	\$8,714	\$7,927	\$104,946	30,930	\$3.39
C6 Restaurants	\$517,394	80	--	\$23.65	\$1.97	\$296,161	\$162,372	\$56,969	\$515,502	103,735	\$4.97
C7 Industrial	<u>\$412</u>	<u>2</u>	--	<u>\$23.65</u>	\$1.97	<u>\$295</u>	<u>\$40</u>	<u>\$30</u>	<u>\$365</u>	<u>103</u>	\$3.53
Subtotal - Commercial	\$1,367,118	532	--	--	--	\$1,049,098	\$222,922	\$82,513	\$1,354,534	367,463	--
Total - Resid. & Comm.	\$8,670,050	26,264									

Note: These rates are calculated so as to meet the FY'07-08 net revenue requirements and to reflect the results of the cost-of-service rate analysis.

a. Includes total revenue requirements by customer class from Table COS-S2.

b. Number of billing units are used for monthly flat rates for residential customers. M5 and MH units are from Table BD-2, "Summary of City Data on Residential Accounts, Meters and Billing Units (FY'06-07)" plus the annual growth rate.

c. Average winter water consumption is the basis for commercial variable charges. From Table AL-S2, Estimated Customer Class Wastewater Characteristics & Annual Loadings (FY'07-08).

The next table summarizes the calculation of residential volume-based rates for Rate Alternative #2.

Table COS-S4 Calculation of Residential Sewer Rates Based on Winter Water Consumption (FY'07-08) City of Davis											
Customer Classes	Total Revenue	Annual Cost	Mo. Flat	Avg. B.U. per	Avg. Flat	Annual Volume-Based Revenue Req't's.				Winter	Variable
	Req't. (a)	Per Acct	Rate per Acct.	Account (c)	Rate per B.U.	Flow	BOD	TSS	Total \$	Water Use	Rates
		\$/yr	\$/acct./mo.		\$/BU/mo.	(\$/yr)	(\$/yr)	(\$/yr)	(\$/yr)	(hcf/yr) (b)	(\$/hcf)
Residential											
Single Family	\$4,426,788	\$23.65	\$1.97	1.00	\$1.97	\$3,500,708	\$383,855	\$252,520	\$4,137,084	1,226,177	\$3.374
Single-Family Condo	\$361,838	\$23.65	\$1.97	1.00	\$1.97	\$280,380	\$30,744	\$20,225	\$331,349	98,207	\$3.374
M2 Duplex	\$288,002	\$23.65	\$1.97	2.00	\$0.99	\$233,133	\$25,563	\$16,817	\$275,513	81,659	\$3.374
M3 Triplex	\$51,741	\$23.65	\$1.97	3.00	\$0.66	\$42,561	\$4,667	\$3,070	\$50,298	14,908	\$3.374
M4 Quadplex	\$100,530	\$23.65	\$1.97	4.00	\$0.49	\$83,305	\$9,134	\$6,009	\$98,449	29,179	\$3.374
M5 5 + units	\$1,962,310	\$23.65	\$1.97	45.87	\$0.04	\$1,656,080	\$181,590	\$119,460	\$1,957,130	580,068	\$3.374
MH Mobile Homes	\$111,724	\$23.65	\$1.97	111.80	\$0.02	\$94,438	\$10,355	\$6,812	\$111,606	33,079	\$3.374
Subtotal - Residential	\$7,302,932	--	--	--	--	\$5,890,606	\$645,909	\$424,913	\$6,961,428	2,063,276	--

Note: These rates are calculated so as to meet the FY'07-08 net revenue requirements and to reflect the results of the cost-of-service rate analysis.

a. Includes total revenue requirements by customer class from Table COS-S2.

b. Average winter water consumption (hcf/yr) from Table AL-S2, Estimated Customer Class Wastewater Characteristics & Annual Loadings (FY'07-08).

c. Total billing units divided by total accounts, from Table BD-2, Summary of City Data on Residential Accounts, Meters and Billing Units (FY'06-07).

Finally, the industrial rates are summarized in the next table. These are the same unit costs that are applied to the residential and commercial customer rate calculations (see Table COS-S1).

Table COS-S5 Summary of Industrial COS Unit Costs (FY'07-08) City of Davis				
Mo. Service Charge (a)	Unit Costs of Industrial Users (b)			
	Flow	BOD	TSS	
\$/acct.	\$/mgd	\$/hcf	\$/lb.	\$/lb.
\$1.97	\$1,393,033	\$2.8550	\$0.24949	\$0.13678

a. From Table COS-S4.

b. From Table COS-S1. Assumes industrial charges are based on winter water use or metered effluent.

Projected Rate Tables

To account for the difference in the total revenue generated by rates for the FY'07-08 cost-of-service analysis and the total revenue generated in the financial plans, a simple percentage adjustment was made “across-the-board” to the cost of service rates. These adjustments are shown in the next tables, followed by tables that present the resulting higher rates.

Table R-4 Sewer Rates - Cost-of-Service Rates (FY'07-08) <i>Financial Plan #1</i>						
City of Davis						
Customer Class	Number of Billing Units (a)	Monthly/Basic Rates	Mo./Basic Rate Revenue	Winter Water Use (hcf/yr) (b)	Variable Rates (\$/hcf)	Total Annual Variable Rev.
Adjustment to Meet F.P. #1 Rate Incr. (c):		31.653%				
Residential						
Single Family	12,248	\$39.6526420	\$5,827,987	--	--	--
Single-Family Condo	1,289	\$30.80	\$476,369	--	--	--
M2 Duplex	1,056	\$29.92	\$379,163	--	--	--
M3 Multi-Family Triplex	183	\$31.02	\$68,118	--	--	--
M4 Quadplex	352	\$31.33	\$132,351	--	--	--
M5 5 + units	10,045	\$21.43	\$2,583,435	--	--	--
MH Mobile Homes	559	\$21.93	\$147,088	--	--	--
Subtotal	25,732		\$9,614,510			
Commercial						
C1 Office/Retail	230	\$2.60	\$7,162	114,664	\$4.12	\$472,752
C2 Laundry	3	\$2.60	\$93	4,733	\$4.20	\$19,879
C3 All Other	163	\$2.60	\$5,076	90,409	\$4.12	\$372,752
C4 Convalescent Hospital	3	\$2.60	\$93	22,889	\$4.39	\$100,580
C5 Auto/Service Station	49	\$2.60	\$1,526	30,930	\$4.47	\$138,165
C6 Restaurants	79	\$2.60	\$2,460	103,735	\$6.54	\$678,672
C7 Industrial	2	\$2.60	\$62	103	\$4.65	\$480
Subtotal	529		\$16,473	367,463		\$1,783,281
Total - Resid. & Comm.	26,261		\$9,630,983			
Total Annual Revenue						\$11,414,264
<i>Target Revenue (d)</i>						<i>\$11,414,264</i>

- a. Customers in FY'07-08, from Table AL-S2, Estimated Customer Class Wastewater Characteristics & Annual Loadings (FY'07-08).
- b. From Table COS-S3, Calculation of Monthly Fixed and Variable Sewer Rates (FY'07-08).
- c. Adjustment to COS rates (which meet the FY'07-08 net revenue requirements) so they produce the same target revenue as ATB Rates. Actual revenue generated by these rates in FY'07-08 depends on when they are implemented. See Financial Plan Tables for details.
- d. This the target revenue is the rate revenue set in the Financial Plan #1 for FY'07-08, including the % rate increase.

Table PR2-1

Projected Sewer Rate Increases - Financial Plan 1 (Levelized Rates)
City of Davis

Customer Class	Current	Projected Rates									
		FY'06-07	FY'07-08	FY'08-09	FY'09-10	FY'10-11	FY'11-12	FY'12-13	FY'13-14	FY'14-15	FY'15-16
Across-the-Board Rates (a)											
Residential - Monthly Flat Rates (\$/Billing Unit)											
Single Family	\$35.63	\$35.63	\$37.41	\$39.28	\$41.64	\$44.97	\$49.92	\$56.91	\$63.16	\$64.43	\$65.72
Single-Family Condo	\$27.46	\$27.46	\$28.83	\$30.27	\$32.09	\$34.66	\$38.47	\$43.86	\$48.68	\$49.65	\$50.65
M2 Duplex	\$27.46	\$27.46	\$28.83	\$30.27	\$32.09	\$34.66	\$38.47	\$43.86	\$48.68	\$49.65	\$50.65
M3 Multi-Family Triplex	\$27.46	\$27.46	\$28.83	\$30.27	\$32.09	\$34.66	\$38.47	\$43.86	\$48.68	\$49.65	\$50.65
M4 Quadplex	\$27.46	\$27.46	\$28.83	\$30.27	\$32.09	\$34.66	\$38.47	\$43.86	\$48.68	\$49.65	\$50.65
M5 5 + units	\$24.80	\$24.80	\$26.04	\$27.34	\$28.98	\$31.30	\$34.74	\$39.61	\$43.97	\$44.84	\$45.74
MH Mobile Homes	\$24.80	\$24.80	\$26.04	\$27.34	\$28.98	\$31.30	\$34.74	\$39.61	\$43.97	\$44.84	\$45.74
Commercial - Monthly Flat Rates (\$/Billing Unit)											
C1 Office/Retail	\$2.21	\$2.21	\$2.32	\$2.44	\$2.58	\$2.79	\$3.10	\$3.53	\$3.92	\$4.00	\$4.08
C2 Laundry	\$2.21	\$2.21	\$2.32	\$2.44	\$2.58	\$2.79	\$3.10	\$3.53	\$3.92	\$4.00	\$4.08
C3 All Other	\$2.21	\$2.21	\$2.32	\$2.44	\$2.58	\$2.79	\$3.10	\$3.53	\$3.92	\$4.00	\$4.08
C4 Convalescent Hospi	\$2.21	\$2.21	\$2.32	\$2.44	\$2.58	\$2.79	\$3.10	\$3.53	\$3.92	\$4.00	\$4.08
C5 Auto/Service Stator	\$2.21	\$2.21	\$2.32	\$2.44	\$2.58	\$2.79	\$3.10	\$3.53	\$3.92	\$4.00	\$4.08
C6 Restaurants	\$2.21	\$2.21	\$2.32	\$2.44	\$2.58	\$2.79	\$3.10	\$3.53	\$3.92	\$4.00	\$4.08
C7 Industrial	\$2.21	\$2.21	\$2.32	\$2.44	\$2.58	\$2.79	\$3.10	\$3.53	\$3.92	\$4.00	\$4.08
Commercial - Variable Rate (\$/hcf)											
C1 Office/Retail	\$3.74	\$3.74	\$3.93	\$4.12	\$4.37	\$4.72	\$5.24	\$5.97	\$6.63	\$6.76	\$6.90
C2 Laundry	\$3.74	\$3.74	\$3.93	\$4.12	\$4.37	\$4.72	\$5.24	\$5.97	\$6.63	\$6.76	\$6.90
C3 All Other	\$3.74	\$3.74	\$3.93	\$4.12	\$4.37	\$4.72	\$5.24	\$5.97	\$6.63	\$6.76	\$6.90
C4 Convalescent Hospi	\$3.86	\$3.86	\$4.05	\$4.26	\$4.51	\$4.87	\$5.41	\$6.16	\$6.84	\$6.98	\$7.12
C5 Auto/Service Stator	\$3.90	\$3.90	\$4.10	\$4.30	\$4.56	\$4.92	\$5.46	\$6.23	\$6.91	\$7.05	\$7.19
C6 Restaurants	\$5.20	\$5.20	\$5.46	\$5.73	\$6.08	\$6.56	\$7.29	\$8.30	\$9.22	\$9.40	\$9.59
C7 Industrial	\$4.05	\$4.05	\$4.25	\$4.47	\$4.73	\$5.11	\$5.67	\$6.47	\$7.18	\$7.32	\$7.47
Annual Rate Increase - Financial Plan 1		0.0%	5.0%	5.0%	6.0%	8.0%	11.0%	14.0%	11.0%	2.0%	2.0%

a. From Table FP2-3, Financial Plan 2/Preferred CIP Funding (FY'06-07).

Table PR2-2

Projected COS Sewer Rate Increases - Financial Plan 1 (Levelized Rates)
City of Davis

Rate Alternative #1 -
COS Flat Mo. Rates

Customer Class	Current	Projected Rates									
		FY'06-07	FY'07-08	FY'08-09	FY'09-10	FY'10-11	FY'11-12	FY'12-13	FY'13-14	FY'14-15	FY'15-16
Rate Alternative #1 - Cost-of-Service Rates											
Residential											
Single Family	\$35.63	\$35.63	\$39.65	\$41.64	\$44.13	\$47.66	\$52.91	\$60.31	\$66.95	\$68.29	\$69.65
Single-Family Condo	\$27.46	\$27.46	\$30.80	\$32.34	\$34.28	\$37.02	\$41.09	\$46.84	\$52.00	\$53.04	\$54.10
M2 Duplex	\$27.46	\$27.46	\$29.92	\$31.42	\$33.30	\$35.97	\$39.92	\$45.51	\$50.52	\$51.53	\$52.56
M3 Multi-Family Triplex	\$27.46	\$27.46	\$31.02	\$32.57	\$34.52	\$37.29	\$41.39	\$47.18	\$52.37	\$53.42	\$54.49
M4 Quadplex	\$27.46	\$27.46	\$31.33	\$32.90	\$34.87	\$37.66	\$41.81	\$47.66	\$52.90	\$53.96	\$55.04
M5 5 + units	\$24.80	\$24.80	\$21.43	\$22.50	\$23.85	\$25.76	\$28.60	\$32.60	\$36.19	\$36.91	\$37.65
MH Mobile Homes	\$24.80	\$24.80	\$21.93	\$23.02	\$24.41	\$26.36	\$29.26	\$33.35	\$37.02	\$37.76	\$38.52
Commercial - Monthly Flat Rates (\$/Billing Unit)											
C1 Office/Retail	\$2.21	\$2.21	\$2.60	\$2.72	\$2.89	\$3.12	\$3.46	\$3.95	\$4.38	\$4.47	\$4.56
C2 Laundry	\$2.21	\$2.21	\$2.60	\$2.72	\$2.89	\$3.12	\$3.46	\$3.95	\$4.38	\$4.47	\$4.56
C3 All Other	\$2.21	\$2.21	\$2.60	\$2.72	\$2.89	\$3.12	\$3.46	\$3.95	\$4.38	\$4.47	\$4.56
C4 Convalescent Hospi	\$2.21	\$2.21	\$2.60	\$2.72	\$2.89	\$3.12	\$3.46	\$3.95	\$4.38	\$4.47	\$4.56
C5 Auto/Service Stator	\$2.21	\$2.21	\$2.60	\$2.72	\$2.89	\$3.12	\$3.46	\$3.95	\$4.38	\$4.47	\$4.56
C6 Restaurants	\$2.21	\$2.21	\$2.60	\$2.72	\$2.89	\$3.12	\$3.46	\$3.95	\$4.38	\$4.47	\$4.56
C7 Industrial	\$2.21	\$2.21	\$2.60	\$2.72	\$2.89	\$3.12	\$3.46	\$3.95	\$4.38	\$4.47	\$4.56
Commercial - Variable Rate (\$/hcf)											
C1 Office/Retail	\$3.74	\$3.74	\$4.12	\$4.33	\$4.59	\$4.96	\$5.50	\$6.27	\$6.96	\$7.10	\$7.24
C2 Laundry	\$3.74	\$3.74	\$4.20	\$4.41	\$4.67	\$5.05	\$5.60	\$6.39	\$7.09	\$7.23	\$7.38
C3 All Other	\$3.74	\$3.74	\$4.12	\$4.33	\$4.59	\$4.96	\$5.50	\$6.27	\$6.96	\$7.10	\$7.24
C4 Convalescent Hospi	\$3.86	\$3.86	\$4.39	\$4.61	\$4.89	\$5.28	\$5.86	\$6.68	\$7.42	\$7.57	\$7.72
C5 Auto/Service Stator	\$3.90	\$3.90	\$4.47	\$4.69	\$4.97	\$5.37	\$5.96	\$6.79	\$7.54	\$7.69	\$7.85
C6 Restaurants	\$5.20	\$5.20	\$6.54	\$6.87	\$7.28	\$7.86	\$8.73	\$9.95	\$11.05	\$11.27	\$11.49
C7 Industrial	\$4.05	\$4.05	\$4.65	\$4.88	\$5.18	\$5.59	\$6.21	\$7.07	\$7.85	\$8.01	\$8.17
Annual Rate Increase - Financial Plan 1		0.0%	5.0%	5.0%	6.0%	8.0%	11.0%	14.0%	11.0%	2.0%	2.0%

a. From Table FP2-3, Financial Plan 2/Preferred CIP Funding (FY'06-07).

Table R-5
Residential Rates - Rate Alternative #2 (COS/Winter Consumption) (FY'07-08)
City of Davis **Financial Plan #1**

Customer Class	Basic Monthly Rate	Avg. Rate/ Billing Unit	Average Winter Water Use (c)		Variable Rates	Monthly Variable Charges		Typcial Mo. Bill (d)	
Adjustment	31.653%	(\$/acct./mo.) (a)	(\$/B.U./mo.) (b)	(hcf/acct./mo.) (hcf/BU/mo.)	(\$/hcf)	(\$/acct./mo.)	(\$/BU/mo.)	(\$/acct./mo.)	(\$/BU/mo.)
Single Family	\$2.60	\$2.60	8.343	8.343	\$4.44	\$37.06	\$37.06	\$39.65	\$39.65
Single-Family Condo	\$2.60	\$2.60	6.349	6.349	\$4.44	\$28.20	\$28.20	\$30.80	\$30.80
M2 Duplex	\$2.60	\$1.30	12.888	6.444	\$4.44	\$57.25	\$28.62	\$59.84	\$29.92
M3 Multi-Family Triplex	\$2.60	\$0.87	20.366	6.789	\$4.44	\$90.46	\$30.15	\$93.06	\$31.02
M4 Quadplex	\$2.60	\$0.65	27.632	6.908	\$4.44	\$122.74	\$30.68	\$125.33	\$31.33
M5 5 + units	\$2.60	\$0.06	220.726	4.812	\$4.44	\$980.45	\$21.38	\$983.04	\$21.43
MH Mobile Homes	\$2.60	\$0.02	551.309	4.931	\$4.44	\$2,448.87	\$21.90	\$2,451.46	\$21.93

- a. Basic rate is charged per account, not billing unit. Multiple billing units only get one charge per account.
- b. From cost-of-service analysis, Table COS-S4.
- c. Average usage per account is from the total accounts by class and average winter usage shown in Table WU-1.
Average usage per billing unit is from the average winter usage shown in Table WU-1 and the total billing units by class shown in Table BD-2.
- d. Basic rate plus monthly variable charges. Assumes average number of accounts or billing units per monthly bill, but will be different of some customers.

Table PR2-3
Projected COS Sewer Rate Increases - Financial Plan 1 (Levelized Rates)
City of Davis **Rate Alternative #2 - COS/Winter Consumption Rates**

Customer Class	Current	Projected Rates									
		FY'06-07	FY'07-08	FY'08-09	FY'09-10	FY'10-11	FY'11-12	FY'12-13	FY'13-14	FY'14-15	FY'15-16
Rate Alternative #2 - COS/Winter Consumption Rates (a)											
Residential (Typical Monthly Rates)											
Single Family	\$35.63	\$35.63	\$39.65	\$41.64	\$44.13	\$47.66	\$52.91	\$60.31	\$66.95	\$68.29	\$69.65
Single-Family Condo	\$27.46	\$27.46	\$30.80	\$32.34	\$34.28	\$37.02	\$41.09	\$46.84	\$52.00	\$53.04	\$54.10
M2 Duplex	\$27.46	\$27.46	\$29.92	\$31.42	\$33.30	\$35.97	\$39.92	\$45.51	\$50.52	\$51.53	\$52.56
M3 Multi-Family Triplex	\$27.46	\$27.46	\$31.02	\$32.57	\$34.52	\$37.29	\$41.39	\$47.18	\$52.37	\$53.42	\$54.49
M4 Quadplex	\$27.46	\$27.46	\$31.33	\$32.90	\$34.87	\$37.66	\$41.81	\$47.66	\$52.90	\$53.96	\$55.04
M5 5 + units	\$24.80	\$24.80	\$21.43	\$22.50	\$23.85	\$25.76	\$28.60	\$32.60	\$36.19	\$36.91	\$37.65
MH Mobile Homes	\$24.80	\$24.80	\$21.93	\$23.02	\$24.41	\$26.36	\$29.26	\$33.35	\$37.02	\$37.76	\$38.52
Annual Rate Increase - Financial Plan 1		0.0%	5.0%	5.0%	6.0%	8.0%	11.0%	14.0%	11.0%	2.0%	2.0%

- a. Typical rates based on the average winter water consumption. Actual rates will vary by user depending on water consumption.

Table COS-S5
Summary of Projected Industrial Sewer Service Charges - Financial Plan #1 (Gradual Increases)
City of Davis

Industrial Charges	Units	FY'07-08	FY'08-09	FY'09-10	FY'10-11	FY'11-12	FY'12-13	FY'13-14	FY'14-15	FY'15-16
Monthly Service Charge	\$/acct./mo.	\$2.60	\$2.72	\$2.89	\$3.12	\$3.46	\$3.95	\$4.38	\$4.47	\$4.56
Flow-Based Charges										
Per Mil. Gal./Day	\$/mgd	\$1,833,966	\$1,925,664	\$2,041,204	\$2,204,500	\$2,446,995	\$2,789,575	\$3,096,428	\$3,158,357	\$3,221,524
Per 100 cu.ft.	\$/hcf	\$3.7587	\$3.9466	\$4.1834	\$4.5181	\$5.0150	\$5.7171	\$6.3460	\$6.4730	\$6.6024
Strength Charges										
BOD	\$/lb.	\$0.32846	\$0.34488	\$0.36557	\$0.39482	\$0.43825	\$0.49960	\$0.55456	\$0.56565	\$0.57696
TSS	\$/lb.	\$0.18008	\$0.18908	\$0.20043	\$0.21646	\$0.24027	\$0.27391	\$0.30404	\$0.31012	\$0.31632
Annual Rate Increase - Financial Plan 1		5.0%	5.0%	6.0%	8.0%	11.0%	14.0%	11.0%	2.0%	2.0%

- a. From Table COS-S4.
- b. From Table COS-S1. Assumes industrial charges are based on winter water use or metered effluent.

Table R-6 Sewer Rates - Cost-of-Service Rates (FY'07-08) Financial Plan #2						
City of Davis						
Customer Class	Number of Billing Units (a)	Monthly/Basic Rates	Mo./Basic Rate Revenue	Winter Water Use	Variable Rates	Total Annual Variable Rev.
Adjustment to Meet F.P. #2 Rate Incr. (c):		27.045%		(hcf/yr) (b)	(\$/hcf)	
Residential						
Single Family	12,248	\$38.26	\$5,624,011	--	--	--
Single-Family Condo	1,289	\$28.87	\$446,624	--	--	--
M2 Duplex	1,056	\$28.87	\$365,892	--	--	--
M3 Multi-Family Triplex	183	\$29.93	\$65,734	--	--	--
M4 Quadplex	352	\$30.24	\$127,719	--	--	--
M5 5 + units	10,045	\$20.68	\$2,493,017	--	--	--
MH Mobile Homes	559	\$21.16	\$141,940	--	--	--
Subtotal	25,732		\$9,264,936			
Commercial						
C1 Office/Retail	230	\$2.50	\$6,912	114,664	\$3.98	\$456,206
C2 Laundry	3	\$2.50	\$90	4,733	\$4.05	\$19,184
C3 All Other	163	\$2.50	\$4,898	90,409	\$3.98	\$359,706
C4 Convalescent Hospital	3	\$2.50	\$90	22,889	\$4.24	\$97,060
C5 Auto/Service Station	49	\$2.50	\$1,472	30,930	\$4.31	\$133,329
C6 Restaurants	79	\$2.50	\$2,374	103,735	\$6.31	\$654,919
C7 Industrial	2	\$2.50	\$60	103	\$4.49	\$464
Subtotal	529		\$15,897	367,463		\$1,720,867
Total - Resid. & Comm.	26,261		\$9,280,833			
Total Annual Revenue						\$11,001,700
Target Revenue (d)						\$11,001,700

- a. Customers in FY'07-08, from Table AL-S2, Estimated Customer Class Wastewater Characteristics & Annual Loadings (FY'07-08).
- b. From Table COS-S3, Calculation of Monthly Fixed and Variable Sewer Rates (FY'07-08).
- c. Adjustment to COS rates (which meet the FY'07-08 net revenue requirements) so they produce the same target revenue as ATB Rate. Actual revenue generated by these rates in FY'07-08 depends on when they are implemented. See Financial Plan Tables for details.
- d. This the target revenue that is the same as the ATB Rates.

Table PR2-1A Projected Sewer Rate Increases - Financial Plan 2 (Delayed Rate Increases) City of Davis											
Customer Class	Current	Projected Rates									
		FY'06-07	FY'07-08	FY'08-09	FY'09-10	FY'10-11	FY'11-12	FY'12-13	FY'13-14	FY'14-15	FY'15-16
Across-the-Board Rates (a)											
Residential - Monthly Flat Rates (\$/Billing Unit)											
Single Family	\$35.63	\$35.63	\$37.41	\$37.41	\$39.28	\$50.08	\$56.09	\$61.87	\$67.44	\$68.12	\$68.80
Single-Family Condo	\$27.46	\$27.46	\$28.83	\$28.83	\$30.27	\$38.60	\$43.23	\$47.69	\$51.98	\$52.50	\$53.02
M2 Duplex	\$27.46	\$27.46	\$28.83	\$28.83	\$30.27	\$38.60	\$43.23	\$47.69	\$51.98	\$52.50	\$53.02
M3 Multi-Family Triplex	\$27.46	\$27.46	\$28.83	\$28.83	\$30.27	\$38.60	\$43.23	\$47.69	\$51.98	\$52.50	\$53.02
M4 Quadplex	\$27.46	\$27.46	\$28.83	\$28.83	\$30.27	\$38.60	\$43.23	\$47.69	\$51.98	\$52.50	\$53.02
M5 5 + units	\$24.80	\$24.80	\$26.04	\$26.04	\$27.34	\$34.86	\$39.04	\$43.07	\$46.94	\$47.41	\$47.89
MH Mobile Homes	\$24.80	\$24.80	\$26.04	\$26.04	\$27.34	\$34.86	\$39.04	\$43.07	\$46.94	\$47.41	\$47.89
Commercial - Monthly Flat Rates (\$/Billing Unit)											
C1 Office/Retail	\$2.21	\$2.21	\$2.32	\$2.32	\$2.44	\$3.11	\$3.48	\$3.84	\$4.18	\$4.22	\$4.27
C2 Laundry	\$2.21	\$2.21	\$2.32	\$2.32	\$2.44	\$3.11	\$3.48	\$3.84	\$4.18	\$4.22	\$4.27
C3 All Other	\$2.21	\$2.21	\$2.32	\$2.32	\$2.44	\$3.11	\$3.48	\$3.84	\$4.18	\$4.22	\$4.27
C4 Convalescent Hospi	\$2.21	\$2.21	\$2.32	\$2.32	\$2.44	\$3.11	\$3.48	\$3.84	\$4.18	\$4.22	\$4.27
C5 Auto/Service Stator	\$2.21	\$2.21	\$2.32	\$2.32	\$2.44	\$3.11	\$3.48	\$3.84	\$4.18	\$4.22	\$4.27
C6 Restaurants	\$2.21	\$2.21	\$2.32	\$2.32	\$2.44	\$3.11	\$3.48	\$3.84	\$4.18	\$4.22	\$4.27
C7 Industrial	\$2.21	\$2.21	\$2.32	\$2.32	\$2.44	\$3.11	\$3.48	\$3.84	\$4.18	\$4.22	\$4.27
Commercial - Variable Rate (\$/hcf)											
C1 Office/Retail	\$3.74	\$3.74	\$3.93	\$3.93	\$4.12	\$5.26	\$5.89	\$6.49	\$7.08	\$7.15	\$7.22
C2 Laundry	\$3.74	\$3.74	\$3.93	\$3.93	\$4.12	\$5.26	\$5.89	\$6.49	\$7.08	\$7.15	\$7.22
C3 All Other	\$3.74	\$3.74	\$3.93	\$3.93	\$4.12	\$5.26	\$5.89	\$6.49	\$7.08	\$7.15	\$7.22
C4 Convalescent Hospi	\$3.86	\$3.86	\$4.05	\$4.05	\$4.26	\$5.43	\$6.08	\$6.70	\$7.31	\$7.38	\$7.45
C5 Auto/Service Stator	\$3.90	\$3.90	\$4.10	\$4.10	\$4.30	\$5.48	\$6.14	\$6.77	\$7.38	\$7.46	\$7.53
C6 Restaurants	\$5.20	\$5.20	\$5.46	\$5.46	\$5.73	\$7.31	\$8.19	\$9.03	\$9.84	\$9.94	\$10.04
C7 Industrial	\$4.05	\$4.05	\$4.25	\$4.25	\$4.47	\$5.69	\$6.38	\$7.03	\$7.67	\$7.74	\$7.82
Annual Rate Increase - Financial Plan 2		0.0%	0.0%	0.0%	5.0%	27.5%	12.0%	10.3%	9.0%	1.0%	1.0%

Table PR2-2A
Projected COS Sewer Rate Increases - Financial Plan 2 (Delayed Rate Increases)
City of Davis Rate Alternative #1 - COS Flat Mo. Rates

Customer Class	Current	Projected Rates									
		FY'06-07	FY'07-08	FY'08-09	FY'09-10	FY'10-11	FY'11-12	FY'12-13	FY'13-14	FY'14-15	FY'15-16
Rate Alternative #1 - Cost-of-Service Rates											
Residential											
Single Family	\$35.63	\$35.63	\$39.65	\$39.65	\$41.64	\$53.08	\$59.46	\$65.58	\$71.48	\$72.20	\$72.92
Single-Family Condo	\$27.46	\$27.46	\$30.80	\$30.80	\$32.34	\$41.23	\$46.18	\$50.93	\$55.52	\$56.07	\$56.63
M2 Duplex	\$27.46	\$27.46	\$29.92	\$29.92	\$31.42	\$40.06	\$44.86	\$49.48	\$53.94	\$54.48	\$55.02
M3 Multi-Family Triplex	\$27.46	\$27.46	\$31.02	\$31.02	\$32.57	\$41.53	\$46.51	\$51.30	\$55.92	\$56.48	\$57.04
M4 Quadplex	\$27.46	\$27.46	\$31.33	\$31.33	\$32.90	\$41.95	\$46.98	\$51.82	\$56.48	\$57.05	\$57.62
M5 5 + units	\$24.80	\$24.80	\$21.43	\$21.43	\$22.50	\$28.69	\$32.14	\$35.45	\$38.64	\$39.02	\$39.41
MH Mobile Homes	\$24.80	\$24.80	\$21.93	\$21.93	\$23.02	\$29.36	\$32.88	\$36.26	\$39.53	\$39.92	\$40.32
Commercial - Monthly Flat Rates (\$/Billing Unit)											
C1 Office/Retail	\$2.21	\$2.21	\$2.60	\$2.60	\$2.72	\$3.47	\$3.89	\$4.29	\$4.68	\$4.72	\$4.77
C2 Laundry	\$2.21	\$2.21	\$2.60	\$2.60	\$2.72	\$3.47	\$3.89	\$4.29	\$4.68	\$4.72	\$4.77
C3 All Other	\$2.21	\$2.21	\$2.60	\$2.60	\$2.72	\$3.47	\$3.89	\$4.29	\$4.68	\$4.72	\$4.77
C4 Convalescent Hospi	\$2.21	\$2.21	\$2.60	\$2.60	\$2.72	\$3.47	\$3.89	\$4.29	\$4.68	\$4.72	\$4.77
C5 Auto/Service Stator	\$2.21	\$2.21	\$2.60	\$2.60	\$2.72	\$3.47	\$3.89	\$4.29	\$4.68	\$4.72	\$4.77
C6 Restaurants	\$2.21	\$2.21	\$2.60	\$2.60	\$2.72	\$3.47	\$3.89	\$4.29	\$4.68	\$4.72	\$4.77
C7 Industrial	\$2.21	\$2.21	\$2.60	\$2.60	\$2.72	\$3.47	\$3.89	\$4.29	\$4.68	\$4.72	\$4.77
Commercial - Variable Rate (\$/hcf)											
C1 Office/Retail	\$3.74	\$3.74	\$4.12	\$4.12	\$4.33	\$5.52	\$6.18	\$6.82	\$7.43	\$7.51	\$7.58
C2 Laundry	\$3.74	\$3.74	\$4.20	\$4.20	\$4.41	\$5.62	\$6.30	\$6.95	\$7.57	\$7.65	\$7.72
C3 All Other	\$3.74	\$3.74	\$4.12	\$4.12	\$4.33	\$5.52	\$6.18	\$6.82	\$7.43	\$7.51	\$7.58
C4 Convalescent Hospi	\$3.86	\$3.86	\$4.39	\$4.39	\$4.61	\$5.88	\$6.59	\$7.27	\$7.92	\$8.00	\$8.08
C5 Auto/Service Stator	\$3.90	\$3.90	\$4.47	\$4.47	\$4.69	\$5.98	\$6.70	\$7.39	\$8.05	\$8.13	\$8.21
C6 Restaurants	\$5.20	\$5.20	\$6.54	\$6.54	\$6.87	\$8.76	\$9.81	\$10.82	\$11.79	\$11.91	\$12.03
C7 Industrial	\$4.05	\$4.05	\$4.65	\$4.65	\$4.88	\$6.23	\$6.97	\$7.69	\$8.38	\$8.47	\$8.55
Annual Rate Increase - Financial Plan 2		0.0%	0.0%	0.0%	5.0%	27.5%	12.0%	10.3%	9.0%	1.0%	1.0%

Table R-5A
Residential Rates - Rate Alternative #2 (COS/Winter Consumption) (FY'07-08)
City of Davis Financial Plan #2

Customer Class	Basic Monthly Rate	Avg. Rate/ Billing Unit	Average Winter Water Use (c)		Variable Rates	Monthly Variable Charges		Typical Mo. Bill (d)	
Adjustment	27.045%	(\$/acct./mo.) (a)	(\$/B.U./mo.) (b)	(hcf/acct./mo.) (hcf/BU/mo.)	(\$/hcf)	(\$/acct./mo.)	(\$/BU/mo.)	(\$/acct./mo.)	(\$/BU/mo.)
Single Family	\$2.50	\$2.50	8.343	8.343	\$4.29	\$35.76	\$35.76	\$38.26	\$38.26
Single-Family Condo	\$2.50	\$2.50	6.349	6.349	\$4.29	\$27.22	\$27.22	\$29.72	\$29.72
M2 Duplex	\$2.50	\$1.25	12.888	6.444	\$4.29	\$55.24	\$27.62	\$57.75	\$28.87
M3 Multi-Family Triplex	\$2.50	\$0.83	20.366	6.789	\$4.29	\$87.30	\$29.10	\$89.80	\$29.93
M4 Quadplex	\$2.50	\$0.63	27.632	6.908	\$4.29	\$118.44	\$29.61	\$120.95	\$30.24
M5 5 + units	\$2.50	\$0.05	220.726	4.812	\$4.29	\$946.13	\$20.63	\$948.64	\$20.68
MH Mobile Homes	\$2.50	\$0.02	551.309	4.931	\$4.29	\$2,363.16	\$21.14	\$2,365.66	\$21.16

- a. Basic rate is charged per account, not billing unit. Multiple billing units only get one charge per account.
- b. From cost-of-service analysis, Table COS-S4.
- c. Average usage per account is from the total accounts by class and average winter usage shown in Table WU-1.
Average usage per billing unit is from the average winter usage shown in Table WU-1 and the total billing units by class shown in Table BD-2.
- d. Basic rate plus monthly variable charges. Assumes average number of accounts or billing units per monthly bill, but will be different of some customers.

Table PR2-3A
Projected COS Sewer Rate Increases - Financial Plan 2 (Delayed Rate Increases)
City of Davis Rate Alternative #2 - COS/Winter Consumption Rates

Customer Class	Current	Projected Rates									
		FY'06-07	FY'07-08	FY'08-09	FY'09-10	FY'10-11	FY'11-12	FY'12-13	FY'13-14	FY'14-15	FY'15-16
Rate Alternative #2 - COS/Winter Consumption Rates (a)											
Residential (Typical Monthly Rates)											
Single Family	\$35.63	\$35.63	\$39.65	\$39.65	\$41.64	\$53.08	\$59.46	\$65.58	\$71.48	\$72.20	\$72.92
Single-Family Condo	\$27.46	\$27.46	\$30.80	\$30.80	\$32.34	\$41.23	\$46.18	\$50.93	\$55.52	\$56.07	\$56.63
M2 Duplex	\$27.46	\$27.46	\$29.92	\$29.92	\$31.42	\$40.06	\$44.86	\$49.48	\$53.94	\$54.48	\$55.02
M3 Multi-Family Triplex	\$27.46	\$27.46	\$31.02	\$31.02	\$32.57	\$41.53	\$46.51	\$51.30	\$55.92	\$56.48	\$57.04
M4 Quadplex	\$27.46	\$27.46	\$31.33	\$31.33	\$32.90	\$41.95	\$46.98	\$51.82	\$56.48	\$57.05	\$57.62
M5 5 + units	\$24.80	\$24.80	\$21.43	\$21.43	\$22.50	\$28.69	\$32.14	\$35.45	\$38.64	\$39.02	\$39.41
MH Mobile Homes	\$24.80	\$24.80	\$21.93	\$21.93	\$23.02	\$29.36	\$32.88	\$36.26	\$39.53	\$39.92	\$40.32
Annual Rate Increase - Financial Plan 2		0.0%	0.0%	0.0%	5.0%	27.5%	12.0%	10.3%	9.0%	1.0%	1.0%

- a. Typical rates based on the average winter water consumption. Actual rates will vary by user depending on water consumption.

Table COS-S5A										
Summary of Projected Industrial Sewer Service Charges - Financial Plan #2 (Delayed Increases)										
City of Davis										
Industrial Charges	Units	FY'07-08	FY'08-09	FY'09-10	FY'10-11	FY'11-12	FY'12-13	FY'13-14	FY'14-15	FY'15-16
Monthly Service Charge	\$/acct/mo.	\$2.60	\$2.60	\$2.72	\$3.47	\$3.89	\$4.29	\$4.68	\$4.72	\$4.77
Flow-Based Charges										
Per Mil. Gal./Day	\$/mgd	\$1,833,966	\$1,833,966	\$1,925,664	\$2,455,222	\$2,749,848	\$3,033,083	\$3,306,060	\$3,339,121	\$3,372,512
Per 100 cu.ft.	\$/hcf	\$3.7587	\$3.7587	\$3.9466	\$5.0319	\$5.6357	\$6.2162	\$6.7757	\$6.8434	\$6.9119
Strength Charges										
BOD	\$/lb.	\$0.32846	\$0.32846	\$0.34488	\$0.43972	\$0.49249	\$0.54321	\$0.59210	\$0.59802	\$0.60400
TSS	\$/lb.	\$0.18008	\$0.18008	\$0.18908	\$0.24108	\$0.27001	\$0.29782	\$0.32462	\$0.32787	\$0.33115
Annual Rate Increase - Financial Plan 2		0.0%	0.0%	5.0%	27.5%	12.0%	10.3%	9.0%	1.0%	1.0%

a. From Table COS-S4.

b. From Table COS-S1. Assumes industrial charges are based on winter water use or metered effluent.

Appendix D – Further Details on Financial Plans and CIP Funding

The following tables show the cash-flows for Fund 532 and 533, and the calculations of the bond coverage ratios.

Table FP-2 Summary of Projected Sewer Capital Reserve Fund Levels (Funds 532 and 533) City of Davis											
Fund Name	Final (a)	Projected Reserves									
	FY '05-06	FY '06-07	FY '07-08	FY '08-09	FY '09-10	FY '10-11	FY '11-12	FY '12-13	FY '13-14	FY '14-15	FY '15-16
Sewer - Capital Replacement Reserve (Fund 532)											
Beginning Fund Balance (b)	4,839,733	3,159,642	5,837,574	5,740,274	5,627,574	5,498,774	5,353,174	5,189,074	5,005,574	4,800,874	4,573,874
Interest Earnings (c)	15,661	142,200	262,700	258,300	253,200	247,400	240,900	233,500	225,300	216,000	205,800
Expenditures	(2,121,950)	(2,027,594)	(1,236,000)	(1,273,000)	(1,311,000)	(1,350,000)	(1,391,000)	(1,433,000)	(1,476,000)	(1,520,000)	(1,566,000)
Transfers In (from Fund 531)	426,198	4,563,326	876,000	902,000	929,000	957,000	986,000	1,016,000	1,046,000	1,077,000	1,109,000
Year-End Fund Balance	3,159,642	5,837,574	5,740,274	5,627,574	5,498,774	5,353,174	5,189,074	5,005,574	4,800,874	4,573,874	4,322,674
Sewer - Capital Expansion Reserve (Fund 533)											
Beginning Fund Balance (b)	2,701,051	2,324,851	2,015,422	2,922,452	3,925,133	5,029,701	6,243,012	7,566,456	9,013,012	10,590,563	12,307,728
Interest Earnings (c)	61,461	104,600	90,700	131,500	176,600	226,300	280,900	340,500	405,600	476,600	553,800
Repayment of Debt (Expansion Portion)											
SRF #1 - 2015 (22% of total) (d)	(64,647)	(64,647)	(64,647)	(64,647)	(64,647)	(64,647)	(64,647)	(64,647)	(64,647)	(64,647)	(64,647)
SRF #2 - 2019 (60% of total) (e)	(414,382)	(414,382)	(414,382)	(414,382)	(414,382)	(414,382)	(414,382)	(414,382)	(414,382)	(414,382)	(414,382)
Expenditures (other than debt service)	(123,632)	(100,000)	(103,000)	(106,100)	(109,300)	(112,600)	(116,000)	(119,500)	(123,100)	(126,800)	(130,600)
Transfers In (Impact Fees) (f)	165,000	165,000	1,398,360	1,456,310	1,516,298	1,578,640	1,637,574	1,704,585	1,774,080	1,846,395	1,921,290
Year-End Fund Balance	2,324,851	2,015,422	2,922,452	3,925,133	5,029,701	6,243,012	7,566,456	9,013,012	10,590,563	12,307,728	14,173,189
Year-End Balances of Reserves	5,484,493	7,852,996	8,662,726	9,552,707	10,528,475	11,596,186	12,755,530	14,018,586	15,391,437	16,881,602	18,495,863
Expenditure Escalator	--	--	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

a. Source: Pages 3-10 and 3-11 of the Final Budget 2005-2006 (no date)
 b. Working capital less encumbrances. FY05-06 beginning balance is from the Summary of Fund Balances, Revenues, and Expenditures/Encumbrances by Fund (Oct. 27, 2006 fax from Sue Gedestad).
 c. After FY05-06, revenues are the estimated investment earnings assuming a 4.5% interest rate on the previous year ending balance, rounded to nearest \$100.
 d. 45% of debt service is allocated to existing customers, 22% to new, remainder to drainage. Source: SRF Loan Repayment Schedule, Dated 6/15/05.
 e. 40% of debt service is allocated to existing customers, 60% to new. Source: SRF Loan Repayment Schedule, Dated 5/20/05.
 f. Beginning in FY07-08, includes revenue from new connection fees based on new growth of 1% per year.

Table FP-3 Calculation of Bond Coverage Ratios by Financial Plan Alternative City of Davis											
	FY '06-07	FY '07-08	FY '08-09	FY '09-10	FY '10-11	FY '11-12	FY '12-13	FY '13-14	FY '14-15	FY '15-16	
Financial Plan Alternative #1 - Levelized Rates (to the Extent Possible)											
Total Revenue from Rates:	\$10,892,736	\$11,414,264	\$12,250,649	\$13,115,525	\$14,306,380	\$16,038,952	\$18,467,275	\$20,703,611	\$21,328,887	\$21,973,106	
Interest Income & Other Revenue:	\$139,400	\$89,500	\$194,000	\$312,100	\$289,700	\$221,300	\$162,600	\$129,800	\$111,600	\$103,400	
Credit for Rate Stabilization Reserve	\$1,988,311	\$4,310,658	\$6,935,476	\$6,438,814	\$4,918,578	\$3,612,947	\$2,883,488	\$2,480,256	\$2,296,705	\$2,346,712	
less Total Operating Expenses:	-\$7,578,628	-\$7,794,050	-\$8,016,010	-\$8,244,712	-\$8,480,361	-\$8,723,180	-\$10,483,380	-\$12,331,189	-\$12,686,834	-\$13,060,546	
Total Revenue:	\$5,441,819	\$8,020,372	\$11,364,115	\$11,621,727	\$11,034,296	\$11,150,019	\$11,029,983	\$10,982,478	\$11,050,358	\$11,362,672	
Existing Debt Service (100%):	\$1,244,010	\$1,249,680	\$1,255,517	\$1,261,533	\$1,267,734	\$1,274,134	\$1,280,734	\$1,287,534	\$1,294,531	\$1,301,707	
New Debt Service:	\$0	\$511,366	\$901,821	\$4,750,576	\$6,678,954	\$7,856,704	\$7,859,954	\$7,859,454	\$7,860,204	\$7,856,954	
Total Debt Service:	\$1,244,010	\$1,761,046	\$2,157,339	\$6,012,109	\$7,946,688	\$9,130,838	\$9,140,687	\$9,146,988	\$9,154,735	\$9,158,661	
Coverage Ratio:	4.37	4.55	5.27	1.93	1.39	1.22	1.21	1.20	1.21	1.24	
Financial Plan Alternative #2 - Rate Increases Set to Meet Coverage Requirement											
Total Revenue from Rates:	\$10,892,736	\$11,001,700	\$11,111,700	\$11,783,940	\$15,174,731	\$17,165,731	\$19,123,166	\$21,052,641	\$21,475,826	\$21,907,577	
Interest Income & Other Revenue:	\$139,400	\$89,500	\$175,400	\$241,400	\$156,000	\$120,600	\$108,100	\$102,300	\$98,600	\$96,400	
Credit for Rate Stabilization Reserve	\$1,988,311	\$3,898,095	\$5,365,363	\$3,466,415	\$2,680,831	\$2,401,279	\$2,273,211	\$2,191,509	\$2,141,898	\$2,119,375	
less Total Operating Expenses:	-\$7,578,628	-\$7,794,050	-\$8,016,010	-\$8,244,712	-\$8,480,361	-\$8,723,180	-\$10,483,380	-\$12,331,189	-\$12,686,834	-\$13,060,546	
Total Revenue:	\$5,441,819	\$7,195,245	\$8,636,453	\$7,247,044	\$9,531,201	\$10,964,430	\$11,021,097	\$11,015,261	\$11,029,490	\$11,062,806	
Existing Debt Service (100%):	\$1,244,010	\$1,249,680	\$1,255,517	\$1,261,533	\$1,267,734	\$1,274,134	\$1,280,734	\$1,287,534	\$1,294,531	\$1,301,707	
New Debt Service:	\$0	\$511,366	\$901,821	\$4,750,576	\$6,678,954	\$7,856,704	\$7,859,954	\$7,859,454	\$7,860,204	\$7,856,954	
Total Debt Service:	\$1,244,010	\$1,761,046	\$2,157,339	\$6,012,109	\$7,946,688	\$9,130,838	\$9,140,687	\$9,146,988	\$9,154,735	\$9,158,661	
Coverage Ratio:	4.37	4.09	4.00	1.21	1.20	1.20	1.21	1.20	1.20	1.21	

In the financial plans the amount of revenue generated by the annual rate increases is summarized in one line. The table below shows the calculation of that revenue for both financial plans.

Table FP-1A Sewer Financial Plans - Amount of Revenue Generated by Each Rate Increase City of Davis											
	Adopted FY '05-06	Proposed FY '06-07 (f)	Projected Rev. Req'ts., Rate Revenue & Fund Balances (f)								
			FY'07-08	FY'08-09	FY'09-10	FY'10-11	FY'11-12	FY'12-13	FY'13-14	FY'14-15	FY'15-16
Financial Plan Alternative #1 - Levelized Rates (to the Extent Possible)											
Rate Increases (from Financial Plan)		0.0%	5.0%	5.0%	6.0%	8.0%	11.0%	14.0%	11.0%	2.0%	2.0%
Implementation Dates*			8/1/07	8/1/08	8/1/09	8/1/10	8/1/11	8/1/12	8/1/13	8/1/14	8/1/15
Revenue from Current Rates (c)	\$ 9,097,000	\$ 10,892,736	\$ 11,001,700	\$ 11,111,700	\$ 11,222,800	\$ 11,335,000	\$ 11,448,400	\$ 11,562,900	\$ 11,678,500	\$ 11,795,300	\$ 11,913,300
Rate Revenue Generated from Rate Increases**											
8/1/07 Implementation Date			\$ 412,564	\$ 555,585	\$ 561,140	\$ 566,750	\$ 572,420	\$ 578,145	\$ 583,925	\$ 589,765	\$ 595,665
8/1/08 Implementation Date				\$ 583,364	\$ 589,197	\$ 595,088	\$ 601,041	\$ 607,052	\$ 613,121	\$ 619,253	\$ 625,448
8/1/09 Implementation Date					\$ 742,388	\$ 749,810	\$ 757,312	\$ 764,886	\$ 772,533	\$ 780,259	\$ 788,065
8/1/10 Implementation Date						\$ 1,059,732	\$ 1,070,334	\$ 1,081,039	\$ 1,091,846	\$ 1,102,766	\$ 1,113,798
8/1/11 Implementation Date							\$ 1,589,446	\$ 1,605,342	\$ 1,621,392	\$ 1,637,608	\$ 1,653,990
8/1/12 Implementation Date								\$ 2,267,911	\$ 2,290,584	\$ 2,313,493	\$ 2,336,637
8/1/13 Implementation Date									\$ 2,051,709	\$ 2,072,229	\$ 2,092,959
8/1/14 Implementation Date										\$ 418,213	\$ 422,397
8/1/15 Implementation Date											\$ 430,845
Revenue from Rate Increases	\$ -	\$ -	\$ 412,564	\$ 1,138,949	\$ 1,892,725	\$ 2,971,380	\$ 4,590,552	\$ 6,904,375	\$ 9,025,111	\$ 9,533,587	\$ 10,059,806
Total Rate Rev. incl. Rate Increases	\$ 9,097,000	\$ 10,892,736	\$ 11,414,264	\$ 12,250,649	\$ 13,115,525	\$ 14,306,380	\$ 16,038,952	\$ 18,467,275	\$ 20,703,611	\$ 21,328,887	\$ 21,973,106
Financial Plan Alternative #2 - Rate Increases Set to Meet Coverage Requirement											
Rate Increases (from Financial Plan)		0.0%	0.0%	0.0%	5.0%	27.5%	12.0%	10.3%	9.0%	1.0%	1.0%
Implementation Dates*			8/1/07	8/1/08	8/1/09	8/1/10	8/1/11	8/1/12	8/1/13	8/1/14	8/1/15
Revenue from Current Rates (c)	\$ 9,097,000	\$ 10,892,736	\$ 11,001,700	\$ 11,111,700	\$ 11,222,800	\$ 11,335,000	\$ 11,448,400	\$ 11,562,900	\$ 11,678,500	\$ 11,795,300	\$ 11,913,300
Rate Revenue Generated from Rate Increases**											
8/1/07 Implementation Date			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8/1/08 Implementation Date				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8/1/09 Implementation Date					\$ 561,140	\$ 566,750	\$ 572,420	\$ 578,145	\$ 583,925	\$ 589,765	\$ 595,665
8/1/10 Implementation Date						\$ 3,272,981	\$ 3,305,726	\$ 3,338,787	\$ 3,372,167	\$ 3,405,893	\$ 3,439,965
8/1/11 Implementation Date							\$ 1,839,185	\$ 1,857,580	\$ 1,876,151	\$ 1,894,915	\$ 1,913,872
8/1/12 Implementation Date								\$ 1,785,753	\$ 1,803,607	\$ 1,821,645	\$ 1,839,869
8/1/13 Implementation Date									\$ 1,738,291	\$ 1,755,677	\$ 1,773,240
8/1/14 Implementation Date										\$ 212,632	\$ 214,759
8/1/15 Implementation Date											\$ 216,907
Revenue from Rate Increases	\$ -	\$ -	\$ -	\$ -	\$ 561,140	\$ 3,839,731	\$ 5,717,331	\$ 7,560,266	\$ 9,374,141	\$ 9,680,526	\$ 9,994,277
Total Rate Rev. incl. Rate Increases	\$ 9,097,000	\$ 10,892,736	\$ 11,001,700	\$ 11,111,700	\$ 11,783,940	\$ 15,174,731	\$ 17,165,731	\$ 19,123,166	\$ 21,052,641	\$ 21,475,826	\$ 21,907,577

* Assumes that rate increases generate additional revenue beginning at the implementation date.

** Rate increase or portion of rate increase times the Revenue from Current Rates plus the previous revenues shown above.

Table CF-3 summarizes the estimate revenue generated by growth and the new connection fees, and Table CIP-2 summarizes the annual debt service payments for the two new revenue bonds that will fund the WWTP improvements.

Table CF-3				
New Connections to the Sewer System and Connection Fee Revenue				
<i>City of Davis</i>				
Year	New EDU's (a)	Total EDU's	New Connection Fee (b)	Connection Fee Revenue (c)
FY'06-07	--	27,143		
FY'07-08	271	27,414	\$5,160	\$1,398,360
FY'08-09	274	27,688	\$5,315	\$1,456,310
FY'09-10	277	27,965	\$5,474	\$1,516,298
FY'10-11	280	28,245	\$5,638	\$1,578,640
FY'11-12	282	28,527	\$5,807	\$1,637,574
FY'12-13	285	28,812	\$5,981	\$1,704,585
FY'13-14	288	29,100	\$6,160	\$1,774,080
FY'14-15	291	29,391	\$6,345	\$1,846,395
FY'15-16	<u>294</u>	<u>29,685</u>	<u>\$6,535</u>	<u>\$1,921,290</u>
Total	2,542	29,685	--	\$14,833,532

a. Assumes a 1%/year growth rate.
 b. Calculated in the connection fee analysis. Includes 3%/yr adjustment.
 c. New EDU's time the connection fee.

Table CIP-2		
Net Debt Service and Net Present Value of Annual Debt Service Payments		
<i>City of Davis</i>		
Year Issued	Series A Bonds	Series B Bonds
NPV @ 3%	\$17,272,932	\$148,572,958
Year 1 (6/08)	\$511,366	
Year 2	\$901,821	
Year 3	\$900,821	\$3,849,755
Year 4	\$904,321	\$5,774,633
Year 5	\$902,071	\$6,954,633
Year 6	\$899,321	\$6,960,633
Year 7	\$901,071	\$6,958,383
Year 8	\$902,071	\$6,958,133
Year 9	\$902,321	\$6,954,633
Year 10	\$901,821	\$7,247,883
Year 11	\$900,571	\$7,252,883
Year 12	\$903,571	\$7,248,133
Year 13	\$900,571	\$7,353,883
Year 14	\$901,821	\$8,044,383
Year 15	\$902,071	\$8,039,883
Year 16	\$901,321	\$8,043,133
Year 17	\$899,571	\$8,043,383
Year 18	\$901,821	\$8,040,383
Year 19	\$902,821	\$8,038,883
Year 20	\$902,571	\$8,043,383
Year 21	\$901,071	\$8,043,133
Year 22	\$903,321	\$8,042,883
Year 23	\$899,071	\$8,047,133
Year 24	\$903,571	\$8,040,133
Year 25	\$901,321	\$8,041,883
Year 26	\$902,571	\$8,041,383
Year 27	\$902,071	\$8,043,133
Year 28	\$899,821	\$8,046,383
Year 29	\$900,821	\$8,045,383
Year 30	\$899,821	\$8,044,633
Year 31	-\$50,929	\$8,993,383
Year 32		\$8,943,383
Year 33		\$8,946,383
Year 34		-\$529,367

Source: Northcross, Hill & Ach, Nov. 16, 2006.
 NPV = Net Present Value assuming a 3% discount rate.

Appendix E – Further Details on Connection Fee Analysis

Section 6 of the report covers most of the details of the connection fee analysis, with the exception of a table calculating the percentages of the connection fee related to flow, BOD, and TSS costs, and detailed asset records. Additionally, there are a few key data on historical growth rates and average dry weather flows at the WWTP that underpin the connection fee analysis. These tables and graphs are presented below.

Table CF-3 Sewer System Assets and Allocations to Future Customers City of Davis					
Typical Single-Family Use	No. of Units (a)	Unit Costs			Unit Costs of Connection Fee (d)
		FY'07-08 (b)	Annual Cost (c)	%	
Flow (hcf/day)	0.34036	\$2.30070	\$285.82	79.4%	\$4,097
BOD (lbs/day)	0.49127	\$0.24949	\$44.74	12.4%	\$641
TSS (lbs/day)	0.58948	\$0.13678	\$29.43	8.2%	\$422
Total	--	--	\$359.99	100.0%	\$5,160

a. Typical single-family effluent generation and loadings from WWTP loading characteristics. See Table COS-S2.
 b. Unit costs for FY'07-08 from the cost-of-service rate analysis. See Table COS-S1.
 c. No. of Units times Unit Costs.
 d. Percent of Annual Cost times connection fee per EDU.

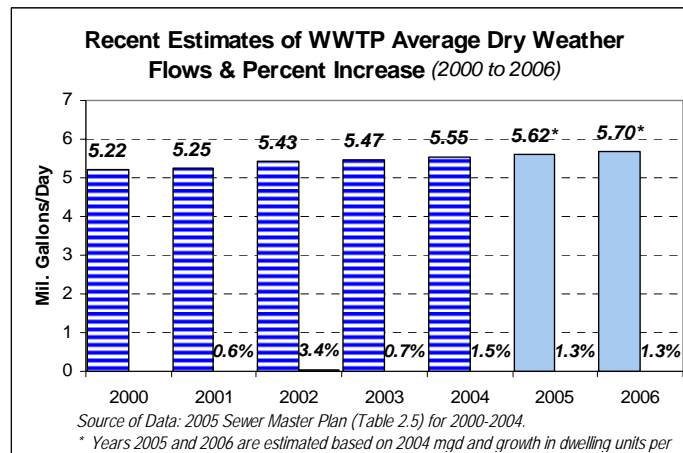
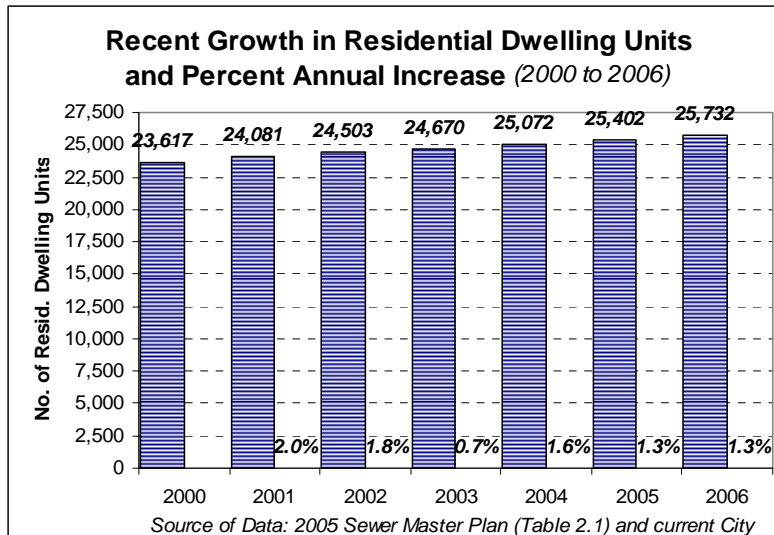


Table CF-4
Historical Residential Units and WWTP Flows

City of Davis

Year	Residential Dwelling Units		ADW Flow, WWTP	
	Number	% Growth	mgd	% Growth
2000	23,617	--	5.22	
2001	24,081	2.0%	5.25	0.6%
2002	24,503	1.8%	5.43	3.4%
2003	24,670	0.7%	5.47	0.7%
2004	25,072	1.6%	5.55	1.5%
2005	25,402	1.3%	5.62	1.3%
2006	25,732	1.3%	5.70	1.3%

Source of Data: Current average dry weather (ADW) flow from Master Plan, Table 2.5.

Residential units from Master Plan, Table 2.1, and current City billing records.

ASSET LIST AS OF 6/30/05											
OTHER EQUIPMENT AND IMPROVEMENTS											
Asset Number	Description	Object Code	Value	FY 2004-05 Depreciation	Accumulated Depreciation as of 6/30/05	Remaining Book Value as of 6-30-07	Original Index No.	Jan. 2006 Index No.	Line No.	Adjustment Factor	Replacement Cost less Depreciation (RCLD)
20040064	ENGINE PEDESTAL	730	1,516	151.60	164.23	1,049	470	514	17	1.093617	\$1,147
20040065	ENGINE PEDESTAL	730	1,516	151.60	164.23	1,049	470	514	17	1.093617	\$1,147
20040062	DIESEL ENGINES	730	5,703	380.20	443.57	4,499	470	514	17	1.093617	\$4,920
20040063	DIESEL ENGINES	730	5,703	380.20	443.57	4,499	470	514	17	1.093617	\$4,920
20030025	VACUUM SAMPLER S5000	540	4,087	510.88	1,106.90	1,958	454	514	17	1.132159	\$2,217
20030031	BUSH HOG (MOWER FOR BACK	620	5,100	637.50	1,434.38	2,391	454	514	17	1.132159	\$2,707
20030060	NATIVE GRASS DRILL/GRAIN BO	620	4,993	499.30	1,289.86	2,705	453	514	17	1.134658	\$3,069
20020011	BAR SCRAPER ASSEMBLY FOR	730	699	69.90	186.40	373	453	514	17	1.134658	\$423
20030029	DESK BUILD, DELIVER AND INST	640	3,780	189.00	519.75	2,882	453	514	17	1.134658	\$3,270
20030028	7020 COPIER WITH DRAWER BA	660	4,087	583.86	1,654.26	1,265	449	514	17	1.144766	\$1,448
20030028	FINISHER (FS-107)	660	1,185	169.29	479.65	367	449	514	17	1.144766	\$420
20030028	RADF (DF-314)	660	947	135.29	383.31	293	449	514	17	1.144766	\$336
20020042	CONTROLLER-HEXACON 4 STAT	690	17,309.00	1,730.90	5,336.94	8,510	449	514	17	1.144766	\$9,742
20020010	DESK-OPERATIONS CENTER DE	640	8,544.00	427.20	1,530.80	6,159	440	514	17	1.168182	\$7,195
20020011	DISK-BTO-10-2840 FOR OVERLA	730	8,000.00	800.00	2,933.33	3,467	440	514	17	1.168182	\$4,050
20020002	GAS CYLINDER FOR SULPHUR D	770	7,549.00	503.27	1,971.13	4,571	434	514	17	1.184332	\$5,414
20000062	60 FOOT RADIO TOWER	680	28,850.00	577.00	2,885.00	24,811	424	514	17	1.212264	\$30,077
20000046	MOWER BUSH HOG - MODEL 32	730	7,559.00	755.90	3,842.49	2,205	424	514	17	1.212264	\$2,673
20000010	AUTOMATIC DISTILLER / TITRAT	710	15,072.00	1,884.00	9,577.00	1,727	424	514	17	1.212264	\$2,094
20000010	INTERCHANGEABLE "SNAP-IN" B	710	708.00	88.50	449.88	81	424	514	17	1.212264	\$98
20000010	TITRATION STAND MODEL 728, S	710	572.00	71.50	363.46	66	424	514	17	1.212264	\$79
20000063	TUTTNAUER AUTOCLAVE 3850E	710	9,970.00	997.00	5,068.08	2,908	424	514	17	1.212264	\$3,525
20000064	CENTRIFUGE MODEL 5804, 115V	710	3,578.00	357.80	1,818.82	1,044	424	514	17	1.212264	\$1,265
20000065	FIXED ANGLE ROTOR 6X85ML	710	1,512.00	151.20	768.60	441	424	514	17	1.212264	\$535
20000027	ANALYTICAL BALANCE, SARTOR	710	3,479.00	434.88	2,210.62	399	424	514	17	1.212264	\$483
20000049	TRASH PUMP	520	1,263.00	157.88	920.94	26	413	514	17	1.244552	\$33
99000016	CPU - IC693CPU352/CPU W/FLOA	680	3,204.00	320.40	2,082.60	481	411	514	17	1.250608	\$601
99000017	CPU - IC693CMM321/ETHERNET	680	3,204.00	320.40	2,082.60	481	411	514	17	1.250608	\$601
99000032	WORKBENCHES & CABINETS FC	710	14,413.00	960.87	6,485.85	6,005	411	514	17	1.250608	\$7,510
98000031	SEWER-DRAIN LINE VIDEO INSP	620	33,033.00	3,303.36	24,775.20	1,651	401	514	17	1.281796	\$2,116
96000232	SHORING SHIELD 6 X 6	620	3,937.00	131.28	1,192.46	2,482	379	514	17	1.356201	\$3,366
95000021	MOWER-TORO SELF-PROPELLE	730	755.00	50.28	540.51	114	364	514	17	1.412088	\$161
95000130	MOWER-TORO RIDING MOWER	730	6,199.05	309.96	3,409.56	2,170	364	514	17	1.412088	\$3,064
93000305	SLIDE GATES MODEL 203 GATES	531	2,160.00	108.00	1,323.00	621	358	514	17	1.435754	\$892
93000306	SLIDE GATES MODEL 203 GATES	531	2,160.00	108.00	1,323.00	621	358	514	17	1.435754	\$892
93000307	SLIDE GATES MODEL 203 GATE	531	1,899.00	94.92	1,162.77	546	358	514	17	1.435754	\$784
Not In	FY 1991-92 - Project 8561		98,546.27	3,941.88	55,186.32	35,476	340	514	17	1.511765	\$53,632
91000118	Office Chair	531	288.00	14.40	202.80	56	340	514	17	1.511765	\$85
1186	Cabinets	4640	450.00	22.56	368.48	36	332	514	17	1.548193	\$56
1182	PC Mobile System Desk	4640	373.00	18.60	310.00	26	321	514	17	1.601246	\$41
1173	WPCP Alarm System, Fire/Intrusior	4690	2,917.00	145.80	2,466.45	159	321	514	17	1.601246	\$255
909	OFFICE FURNITURE, VARIOUS, N	4640	956.00	47.76	815.90	45	321	514	17	1.601246	\$71
789	STORAGE TANK, DIESEL, 200 GA	4730	472.00	23.64	407.79	17	321	514	17	1.601246	\$27
869	OAK CABINETS, 48" X 36" X 14", C	4640	742.00	37.08	648.90	19	321	514	17	1.601246	\$30
1039	BLDG STORAGE, 8000 SQ FT, MTL	8100	60,965.00	1,524.12	28,450.24	29,467	306	514	17	1.679739	\$49,496
984	ELECTRICAL SYSTEM AND CON	8510	61,448.00	2,457.96	45,881.92	10,650	306	514	17	1.679739	\$17,889
537	FENCE GATES, CHAIN LINK W/S	8101	1,200.00	39.96	789.21	331	301	514	17	1.707641	\$565
376	STORAGE CONTAINER-COST SH	4730	639.00	15.96	321.86	285	301	514	17	1.707641	\$487
810463	MULTI-GAS MONITORS, LUMIDO	4770	2,328.00	77.64	1,928.06	245	224	514	17	2.294643	\$561
810464	MULTI-GAS MONITORS	4770	2,328.00	77.64	1,928.06	245	224	514	17	2.294643	\$561
810462	CHLORINE DETECTOR, FISCHR	4770	1,169.00	39.00	971.75	119	224	514	17	2.294643	\$274
102955		8510	19,530.00	390.60	11,522.70	7,226	160	514	17	3.2125	\$23,214
102954		8510	17,560.00	351.24	10,361.58	6,496	160	514	17	3.2125	\$20,868
			496,156.32	27,728.96	254,886.77						\$281,387

ASSET LIST AS OF 6/30/05											Replacement Cost less Depreciation (RCLD)
Asset Number	Description	Object Code	FY 2004-05 Value	FY 2004-05 Depreciation	Accumulated Depreciation as of 6/30/05	Remaining Book Value as of 6-30-07	Handy-Whitman Index				
							Original Index No.	Jan. 2006 Index No.	Line No.	Adjustment Factor	
LAND											
981	LAND IMPROVEMENT: DEMOLIT	8000	34,821.00								
810437	Asset Disposed of Fiscal Year 199	8000	0.00								
810438		8000	0.00								
810439		8000	0.00								
810440		8000	10.00								
810441		8000	243,666.00								
810442		8000	498,000.00								
	LAND ACQUISITION WETLANDS	8000	1,329,542.00								
	Additional Costs - Wetlands Acquis	8000	13,029.00								
	Additional Costs - Wetlands Acquis	8000	1,095.00								
	LAND ACQUISITION WETLANDS	8000	1,069,491.37								
			3,189,654.37	0.00	0.00						\$3,189,654
TREATMENT PLANT											
	FY 2004/05 - Project 8624 - Wetlands Constr		1,021,613.94	25,540.32	27,668.32	942,865	363	394	2	1.085399	\$1,023,385
20040049	CONTROLLER - WATER TREATM	670	10,840	2,168.00	2,348.67	4,155	416	455	15	1.09375	\$4,545
20040066	RAILING/ALUMINUM	690	20,567	1,028.35	1,199.74	17,311	416	455	15	1.09375	\$18,933
20030026	ALUMINUM RAILING AROUND PR	520	21,540	1,077.00	2,243.75	17,142	391	455	15	1.163683	\$19,948
20030027	ALUMINUM RAILING PER PLANS	520	17,430	871.50	2,614.50	13,073	390	455	15	1.166667	\$15,251
Not In	FY 1999-00 - Project 8729 - WPCP Expansio		72,369.65	1,809.24	7,387.24	61,364	375	455	15	1.213333	\$74,455
20010031	STEEL BUILDING WITH FULLY EN	100	19,500.00	975.00	4,306.00	13,244	374	455	15	1.216578	\$16,112
20010013	COMMUNICATION TOWER FOR	680	31,400.00	314.04	1,544.04	29,228	369	455	15	1.233062	\$36,040
Not In	FY 1999-00 - Project 8729 - Pollutant Reduct		1,220,243.02	30,506.04	155,072.04	1,004,159	369	455	15	1.233062	\$1,238,191
Not In	FY 1999-00 - Project 8641 - WPCP Expansio		14,590,213.14	364,755.36	2,097,343.36	11,763,359	347	455	15	1.311239	\$15,424,577
20000048	FURNACE THERMOLYNE MODEL	710	3,352.00	335.20	1,955.33	726	413	514	17	1.244552	\$904
20000048	DUAL PURPOSE S.S. CRUCIBLE	710	87.00	8.70	50.75	19	413	514	17	1.244552	\$23
20000048	HEARTH TRAY	710	78.00	7.80	45.50	17	413	514	17	1.244552	\$21
20000048	STAINLESS STEEL SHELF FOR N	710	35.00	3.50	20.42	8	413	514	17	1.244552	\$9
20000048	HANDLE FOR SHELF	710	24.00	2.40	14.00	5	413	514	17	1.244552	\$6
Not In	FY 1997-98 - Project 8624 - Constructed Wet		1,005,750.00	40,230.00	305,078.00	620,212	312	394	2	1.262821	\$783,216
Not In	FY 1996-97 - Project 8549 - Overland Flow F		134,296.00	3,357.36	37,210.36	90,371	287	394	2	1.372822	\$124,063
Not In	FY 1991-92 - Project 8555		2,055,606.08	102,780.36	1,438,925.36	411,120	259	394	2	1.521236	\$625,410
91000122	Fence Gate	531	3,624.00	90.60	1,290.60	2,152	280	455	15	1.625	\$3,497
1222	Grit Washer, Stainless Steel	8520	10,740.00	357.96	5,905.96	4,118	274	455	15	1.660584	\$6,838
1185	Leroy SCD115-25 Screw Conveyor	8520	1,038.00	34.56	573.56	395	265	455	15	1.716981	\$679
Not In	FY 1988-89 - Project 875		320,412.00	16,020.60	268,344.60	20,026	265	455	15	1.716981	\$34,385
660	CONTROL SYSTEM FOR RAW SL	8520	5,978.00	239.16	4,384.16	1,116	257	455	15	1.770428	\$1,975
1004	INFLUENT SEWAGE PUMPS AND	8520	154,755.00	6,190.20	121,740.20	20,634	249	455	15	1.827309	\$37,705
1005	SLUICE GATES	8520	29,785.00	1,191.36	23,430.36	3,972	249	455	15	1.827309	\$7,258
1006	FLOW METERS	8520	23,744.00	949.80	18,679.80	3,165	249	455	15	1.827309	\$5,783
Not In	FY 1986-87 - Project 873		130,735.00	3,268.32	65,366.32	58,832	249	455	15	1.827309	\$107,504
533	NEW DIGESTER DOME	8520	282,356.00	11,294.28	231,532.28	28,235	249	455	15	1.827309	\$51,594
531	PRE-FAB METAL BUILDING	8520	252,295.00	10,091.76	206,880.76	25,231	249	455	15	1.827309	\$46,104
529	ELECTRICAL AND CONTROL INS	8520	221,161.00	8,846.40	181,351.40	22,117	249	455	15	1.827309	\$40,414
532	ENGINE/GENERATOR PACKAGE	8520	194,321.00	7,772.88	159,343.88	19,431	249	455	15	1.827309	\$35,507
530	PIPING AND INSULATION	8520	123,464.00	4,938.60	101,241.60	12,345	249	455	15	1.827309	\$22,558
174	ALUMINUM SAFETY RAIL, FOR S	8520	1,895.00	47.40	975.40	825	241	455	15	1.887967	\$1,557
190	ALUMINUM LADDER STAIRWAY,	8520	864.00	21.60	446.60	374	241	455	15	1.887967	\$706
Not In	FY 1984-85 - Project 864		2,529,655.94	84,321.84	1,770,758.84	590,253	241	455	15	1.887967	\$1,114,379
102759		8520	405,432.00	8,108.64	266,233.64	122,981	92	455	15	4.945652	\$608,222
102672		8520	331,108.00	6,622.20	217,429.20	100,434	92	455	15	4.945652	\$496,714
102233		8520	205,829.00	4,116.60	135,161.60	62,434	92	455	15	4.945652	\$308,778
102838		8520	125,240.84	2,504.76	82,239.76	37,992	92	455	15	4.945652	\$187,893
102837		8520	41,965.31	839.28	27,556.28	12,730	92	455	15	4.945652	\$62,960
102810		8520	31,301.00	626.04	20,555.04	9,494	92	455	15	4.945652	\$46,953
102234	WELL, WATER, 12 X 305 FT	8520	8,550.00	171.00	5,729.00	2,479	92	455	15	4.945652	\$12,260
			25,661,193.92	754,436.01	8,002,178.22						\$22,647,318

ASSET LIST AS OF 6/30/05											
Asset		Object			Accumulated	Remaining	Handy-Whitman Index				Replacement
Number	Description	Code	Value	Depreciation	Depreciation	Book Value	Original	Jan. 2006	Line	Adjustment	Cost less
					as of 6/30/05	as of 6-30-07	Index No.	Index No.	No.	Factor	Depreciation
PIPES AND LINES											
Not In	FY 2000-01 - Project 8769 - El Macero Lift St		567,376.15	14,184.36	65,011.65	473,996	357	454	34	1.271709	\$602,785
Not In	FY 1999-00 - Project 8789 - North Davis Mea		21,198.64	529.92	2,693.76	17,445	354	454	34	1.282486	\$22,373
Not In	FY 1999-00 - Project 8791 - Sewer Miant Hol		240,909.29	6,022.68	36,136.08	192,728	341	454	34	1.331378	\$256,594
Not In	FY 1999-00 - Project 8654 - Drainage Convey		1,023,883.49	34,129.44	210,464.88	745,160	341	454	34	1.331378	\$992,089
Not In	FY 1997-98 - Project 8750 - Sewer Trunk Ma		833,049.86	20,826.24	166,609.92	624,787	331	454	34	1.371601	\$856,959
Not In	FY 1992-93 - Project 8715		100,124.00	2,503.08	31,288.50	63,829	309	454	34	1.469256	\$93,782
Not In	FY 1991-92 - Project 8622		59,505.63	1,487.64	19,835.20	36,695	301	454	34	1.508306	\$55,348
Not In	FY 1989-90 - Project 883		61,682.96	2,467.32	37,832.24	18,916	296	454	34	1.533784	\$29,013
Not In	FY 1988-89 - Project 895		198,730.00	3,974.64	67,237.66	123,543	283	454	34	1.60424	\$198,193
Not In	FY 1988-89 - Project 880		185,548.00	3,711.00	63,087.00	115,039	283	454	34	1.60424	\$184,550
830275		8530	96,099.00	1,922.04	43,886.58	48,368	246	454	34	1.845528	\$89,265
830274		8530	79,890.00	1,597.80	36,483.10	40,211	246	454	34	1.845528	\$74,211
830273		8530	38,440.00	768.84	17,555.18	19,347	246	454	34	1.845528	\$35,706
830276		8530	17,136.00	342.72	7,825.44	8,625	246	454	34	1.845528	\$15,918
810443		8530	8,600.00	171.96	4,198.69	4,057	233	454	34	1.948498	\$7,906
810444		8530	1,980.00	39.60	966.90	934	233	454	34	1.948498	\$1,820
810445		8530	125,730.00	2,514.60	62,445.90	58,255	212	454	34	2.141509	\$124,753
810447		8530	64,935.00	1,298.76	32,360.77	29,977	212	454	34	2.141509	\$64,195
810446		8530	41,418.00	828.36	20,639.97	19,121	212	454	34	2.141509	\$40,948
810448		8530	1,690.00	33.84	843.18	779	212	454	34	2.141509	\$1,669
203000		8530	16,152.90	323.04	8,560.56	6,946	194	454	34	2.340206	\$16,256
102980		8530	11,605.44	232.08	6,150.12	4,991	194	454	34	2.340206	\$11,680
103001		8530	10,447.91	208.92	5,745.30	4,285	194	454	34	2.340206	\$10,027
102981		8530	7,507.00	150.12	4,128.30	3,078	181	454	34	2.508287	\$7,722
103002		8530	29,308.09	586.20	16,706.70	11,429	168	454	34	2.702381	\$30,885
102982		8530	21,056.73	421.08	12,000.78	8,214	168	454	34	2.702381	\$22,197
103003		8530	4,210.08	84.24	2,485.08	1,557	161	454	34	2.819876	\$4,389
102983		8530	3,022.25	60.48	1,784.16	1,117	161	454	34	2.819876	\$3,150
103004		8530	36,302.84	726.00	22,143.00	12,708	161	454	34	2.819876	\$35,835
102984		8530	33,247.86	664.92	20,280.06	11,638	152	454	34	2.986842	\$34,761
103020		8530	15,425.76	308.52	9,409.86	5,399	152	454	34	2.986842	\$16,126
103100		8530	8,125.40	162.48	4,955.64	2,845	152	454	34	2.986842	\$8,497
103068		8530	7,352.56	147.00	4,483.50	2,575	152	454	34	2.986842	\$7,691
103036		8530	7,239.45	144.84	4,417.62	2,532	152	454	34	2.986842	\$7,563
103084		8530	6,992.17	139.80	4,263.90	2,449	152	454	34	2.986842	\$7,314
103052		8530	6,937.85	138.72	4,230.96	2,429	152	454	34	2.986842	\$7,256
103117		8530	5,100.27	102.00	3,111.00	1,785	152	454	34	2.986842	\$5,332
103005		8530	21,233.14	424.68	13,377.42	7,006	133	454	34	3.413534	\$23,916
102985		8530	19,443.73	388.92	12,250.98	6,415	133	454	34	3.413534	\$21,898
103021		8530	9,022.99	180.48	5,685.12	2,977	133	454	34	3.413534	\$10,162
103101		8530	4,746.68	94.92	2,989.98	1,567	133	454	34	3.413534	\$5,349
103037		8530	4,236.65	84.72	2,668.68	1,399	133	454	34	3.413534	\$4,774
103069		8530	4,210.49	84.24	2,653.56	1,388	133	454	34	3.413534	\$4,740
103085		8530	4,085.49	81.72	2,574.18	1,348	133	454	34	3.413534	\$4,601
103053		8530	4,055.52	81.12	2,555.28	1,338	133	454	34	3.413534	\$4,567
103118		8530	2,976.16	59.52	1,874.88	982	133	454	34	3.413534	\$3,353
102986		8530	20,483.25	409.68	13,314.60	6,349	100	454	34	4.54	\$28,826
103006		8530	14,170.71	283.44	9,211.80	4,392	100	454	34	4.54	\$19,940
103022		8530	9,509.35	190.20	6,181.50	2,947	100	454	34	4.54	\$13,381
103102		8530	4,996.08	99.96	3,248.70	1,547	100	454	34	4.54	\$7,025
103337		8530	4,461.79	89.28	2,901.60	1,382	100	454	34	4.54	\$6,273
103070		8530	4,439.84	88.80	2,886.00	1,376	100	454	34	4.54	\$6,248
103086		8530	4,305.54	86.16	2,800.20	1,333	100	454	34	4.54	\$6,052
103054		8530	4,274.68	85.44	2,776.80	1,327	100	454	34	4.54	\$6,025
103119		8530	2,998.62	60.00	1,950.00	929	100	454	34	4.54	\$4,216
103135		8530	184,137.69	3,682.80	123,373.80	53,398	98	454	34	4.632653	\$247,376
103007		8530	48,486.23	969.72	32,485.62	14,061	98	454	34	4.632653	\$65,141
102987		8530	44,407.80	888.12	29,752.02	12,880	98	454	34	4.632653	\$59,666
103023		8530	37,972.55	759.48	25,442.58	11,011	98	454	34	4.632653	\$51,010
103136		8530	32,261.67	645.24	21,615.54	9,356	98	454	34	4.632653	\$43,341
103103		8530	10,844.56	216.84	7,264.14	3,147	98	454	34	4.632653	\$14,578
103038		8530	9,669.99	193.44	6,480.24	2,803	98	454	34	4.632653	\$12,985
103071		8530	9,617.37	192.36	6,444.06	2,789	98	454	34	4.632653	\$12,919
103087		8530	9,333.19	186.72	6,255.12	2,705	98	454	34	4.632653	\$12,530
103055		8530	9,270.84	185.40	6,210.90	2,689	98	454	34	4.632653	\$12,458
103120		8530	6,810.30	136.20	4,562.70	1,975	98	454	34	4.632653	\$9,150
103008		8530	25,369.03	507.36	17,503.92	6,850	96	454	34	4.729167	\$32,397
102988		8530	23,234.48	464.64	16,030.08	6,275	96	454	34	4.729167	\$29,676
103024		8530	10,779.93	215.64	7,439.58	2,909	96	454	34	4.729167	\$13,757
103104		8530	5,699.58	114.00	3,933.00	1,539	96	454	34	4.729167	\$7,276
103039		8530	5,061.03	101.28	3,494.16	1,364	96	454	34	4.729167	\$6,452
103072		8530	5,031.20	100.68	3,473.46	1,356	96	454	34	4.729167	\$6,415
103088		8530	4,882.23	97.68	3,369.96	1,317	96	454	34	4.729167	\$6,228
103056		8530	4,853.19	97.08	3,349.26	1,310	96	454	34	4.729167	\$6,194
103121		8530	3,557.64	71.16	2,455.02	960	96	454	34	4.729167	\$4,541
103009		8530	23,396.69	467.88	16,609.74	5,851	89	454	34	5.101124	\$29,848
102989		8530	21,554.74	431.04	15,301.92	5,391	89	454	34	5.101124	\$27,499
103025		8530	9,940.89	198.84	7,058.82	2,484	89	454	34	5.101124	\$16,673
103105		8530	5,230.37	104.64	3,714.72	1,306	89	454	34	5.101124	\$6,664
103040		8530	4,671.03	93.48	3,318.54	1,166	89	454	34	5.101124	\$5,946
103073		8530	4,639.40	92.76	3,292.98	1,161	89	454	34	5.101124	\$5,922
103089		8530	4,506.19	90.12	3,199.26	1,127	89	454	34	5.101124	\$5,747
103057		8530	4,480.78	89.64	3,182.22	1,119	89	454	34	5.101124	\$5,710
103122		8530	3,404.28	68.04	2,415.42	853	89	454	34	5.101124	\$4,350
102990		8530	20,481.35	409.68	14,953.32	4,709	84	454	34	5.404762	\$25,449
103026		8530	8,840.36	176.76	6,451.74	2,035	84	454	34	5.40	

ASSET LIST AS OF 6/30/05											
Asset Number	Description	Object Code	Value	FY 2004-05 Depreciation	Accumulated Depreciation as of 6/30/05	Remaining Book Value as of 6-30-07	Handy-Whitman Index				Replacement Cost less Depreciation
							Original Index No.	Jan. 2006 Index No.	Line No.	Adjustment Factor	
103074		8530	4,464.99	89.28	3,258.72	1,028	84	454	34	5.404762	\$5,555
103041		8530	4,461.69	89.28	3,258.72	1,024	84	454	34	5.404762	\$5,537
103090		8530	4,308.69	86.16	3,144.84	992	84	454	34	5.404762	\$5,359
103058		8530	4,278.15	85.56	3,122.94	984	84	454	34	5.404762	\$5,319
103010		8530	3,464.55	69.24	2,527.26	799	84	454	34	5.404762	\$4,317
103123		8530	3,140.78	62.76	2,290.74	725	84	454	34	5.404762	\$3,916
103011		8530	17,923.95	358.44	13,441.50	3,766	82	454	34	5.536585	\$20,848
102991		8530	16,416.78	328.32	12,312.00	3,448	82	454	34	5.536585	\$19,091
103027		8530	7,616.99	152.28	5,710.50	1,602	82	454	34	5.536585	\$8,869
103107		8530	4,007.26	80.16	3,006.00	841	82	454	34	5.536585	\$4,656
103042		8530	3,573.29	71.52	2,682.00	748	82	454	34	5.536585	\$4,143
103075		8530	3,553.84	71.04	2,664.00	748	82	454	34	5.536585	\$4,140
103091		8530	3,452.43	69.00	2,587.50	727	82	454	34	5.536585	\$4,025
103059		8530	3,426.47	68.52	2,569.50	720	82	454	34	5.536585	\$3,986
103124		8530	2,815.09	56.28	2,110.50	592	82	454	34	5.536585	\$3,278
103012		8530	28,542.16	570.84	21,977.34	5,423	80	454	34	5.675	\$30,776
102992		8530	26,143.22	522.84	20,129.34	4,968	80	454	34	5.675	\$28,195
103028		8530	12,128.13	242.52	9,337.02	2,306	80	454	34	5.675	\$13,087
103108		8530	6,386.66	127.68	4,915.68	1,216	80	454	34	5.675	\$6,899
103076		8530	5,779.12	115.56	4,449.06	1,099	80	454	34	5.675	\$6,236
103043		8530	5,691.96	113.88	4,384.38	1,080	80	454	34	5.675	\$6,128
103092		8530	5,492.07	109.80	4,227.30	1,045	80	454	34	5.675	\$5,931
103060		8530	5,455.68	109.08	4,199.58	1,038	80	454	34	5.675	\$5,890
103125		8530	4,004.38	80.04	3,081.54	763	80	454	34	5.675	\$4,329
103013		8530	22,045.65	440.88	17,414.76	3,749	79	454	34	5.746835	\$21,546
102993		8530	20,191.53	403.80	15,950.10	3,434	79	454	34	5.746835	\$19,734
103029		8530	9,368.12	187.32	7,399.14	1,594	79	454	34	5.746835	\$9,162
103109		8530	4,929.70	98.64	3,896.28	836	79	454	34	5.746835	\$4,805
103044		8530	4,398.20	87.96	3,474.42	748	79	454	34	5.746835	\$4,298
103077		8530	4,372.28	87.48	3,455.46	742	79	454	34	5.746835	\$4,263
103093		8530	4,242.82	84.84	3,351.18	722	79	454	34	5.746835	\$4,149
103061		8530	4,217.58	84.36	3,332.22	717	79	454	34	5.746835	\$4,118
103126		8530	3,091.71	61.80	2,441.10	527	79	454	34	5.746835	\$3,029
103014		8530	25,483.53	509.64	20,640.42	3,824	78	454	34	5.820513	\$22,257
102994		8530	23,337.87	466.80	18,905.40	3,499	78	454	34	5.820513	\$20,365
103030		8530	10,829.27	216.60	8,772.30	1,624	78	454	34	5.820513	\$9,451
103110		8530	5,798.09	115.92	4,694.76	871	78	454	34	5.820513	\$5,073
103045		8530	5,081.20	101.64	4,116.42	762	78	454	34	5.820513	\$4,432
103078		8530	5,053.55	101.04	4,092.12	759	78	454	34	5.820513	\$4,420
103094		8530	4,907.82	98.16	3,975.48	736	78	454	34	5.820513	\$4,284
103062		8530	4,872.00	97.44	3,946.32	731	78	454	34	5.820513	\$4,254
103127		8530	3,576.19	71.52	2,896.56	537	78	454	34	5.820513	\$3,123
103015		8530	12,982.46	259.68	10,776.72	1,686	78	454	34	5.820513	\$9,816
102995		8530	11,890.05	237.84	9,870.36	1,544	78	454	34	5.820513	\$8,987
103031		8530	5,516.31	110.28	4,576.62	719	78	454	34	5.820513	\$4,186
103111		8530	2,893.49	57.84	2,400.36	377	78	454	34	5.820513	\$2,197
103046		8530	2,588.28	51.72	2,146.38	338	78	454	34	5.820513	\$1,970
103079		8530	2,576.29	51.48	2,136.42	337	78	454	34	5.820513	\$1,961
103095		8530	2,496.13	49.92	2,071.68	325	78	454	34	5.820513	\$1,889
103063		8530	2,480.27	49.56	2,056.74	324	78	454	34	5.820513	\$1,888
103128		8530	1,820.24	36.36	1,508.94	239	78	454	34	5.820513	\$1,389
103016		8530	15,993.80	319.92	13,596.60	1,757	77	454	34	5.896104	\$10,362
102996		8530	14,649.64	293.04	12,454.20	1,609	77	454	34	5.896104	\$9,489
103032		8530	6,797.12	135.96	5,778.30	747	77	454	34	5.896104	\$4,404
103112		8530	3,510.24	70.20	2,983.50	386	77	454	34	5.896104	\$2,278
103080		8530	3,176.02	63.48	2,697.90	351	77	454	34	5.896104	\$2,070
103047		8530	3,189.09	63.84	2,713.20	348	77	454	34	5.896104	\$2,053
103096		8530	3,079.26	61.56	2,616.30	340	77	454	34	5.896104	\$2,004
103064		8530	3,059.61	61.20	2,601.00	336	77	454	34	5.896104	\$1,982
103129		8530	2,255.98	45.12	1,917.60	248	77	454	34	5.896104	\$1,463
103017		8530	11,641.71	232.80	10,126.80	1,049	76	454	34	5.973684	\$6,268
102997		8530	10,661.23	213.24	9,275.94	959	76	454	34	5.973684	\$5,728
103033		8530	4,944.72	98.88	4,301.28	446	76	454	34	5.973684	\$2,662
103113		8530	2,609.09	52.20	2,270.70	234	76	454	34	5.973684	\$1,398
103048		8530	2,322.27	46.44	2,020.14	209	76	454	34	5.973684	\$1,250
103081		8530	2,267.64	45.36	1,973.16	204	76	454	34	5.973684	\$1,217
103097		8530	2,244.72	44.88	1,952.28	203	76	454	34	5.973684	\$1,211
103065		8530	2,224.24	44.52	1,936.62	199	76	454	34	5.973684	\$1,186
103130		8530	1,632.44	32.64	1,419.84	147	76	454	34	5.973684	\$880
103018		8530	11,401.01	228.00	10,146.00	799	75	454	34	6.053333	\$4,837
102998		8530	10,440.81	208.80	9,291.60	732	75	454	34	6.053333	\$4,429
103034		8530	4,842.49	96.84	4,309.38	339	75	454	34	6.053333	\$2,055
103049		8530	2,274.26	45.48	2,023.86	159	75	454	34	6.053333	\$965
103082		8530	2,220.76	44.40	1,975.80	156	75	454	34	6.053333	\$945
103098		8530	2,198.31	43.92	1,954.44	156	75	454	34	6.053333	\$945
103066		8530	2,178.25	43.56	1,938.42	153	75	454	34	6.053333	\$924
103131		8530	1,598.69	31.92	1,420.44	114	75	454	34	6.053333	\$693
103114		8530	1,100.88	21.96	977.22	80	75	454	34	6.053333	\$483
			5,281,122.42	129,618.12	1,996,606.32						\$5,438,939

Note: The City's inventory for Pipe & Lines included developer contributions of \$11,787,938 (original cost) per the Finance Dept. Sue Gedestad identified developer contributions of \$10,162,320, which I have deleted from these records. This leaves another \$1,625,618 of developer contributions that need to be removed, which means 73.8% of the remaining \$6,216,191 must be taken out. The net result is that \$4,590,574 (original cost) is actual fixed assets to be included for connection fee purposes. The end result is the 73.8% of the RCLD of \$5,438,939 is included in connection fees.