NOTICE OF SPECIAL MEETING

Pursuant to Section 54956 of the Government Code of the State of California, a Special meeting of the **Tracy City Council** is hereby called for:

Date/Time: **Tuesday, April 16, 2013, 6:00 p.m.**
(or as soon thereafter as possible)

Location: **Council Chambers, City Hall**
333 Civic Center Plaza, Tracy

Government Code Section 54954.3 states that every public meeting shall provide an opportunity for the public to address the Tracy City Council on any item, before or during consideration of the item, however no action shall be taken on any item not on the agenda.

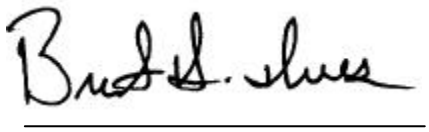
1. Call to Order

2. Roll Call

3. Items from the Audience - *In accordance with Procedures for Preparation, Posting and Distribution of Agendas and the Conduct of Public Meetings, adopted by Resolution 2008-140 any item not on the agenda brought up by the public at a meeting, shall be automatically referred to staff. If staff is not able to resolve the matter satisfactorily, the member of the public may request a Council Member to sponsor the item for discussion at a future meeting.*

4. WORKSHOP FOR THE WASTEWATER REVENUE AND RATE PROGRAM

5. Adjournment



Mayor

April 11, 2013

The City of Tracy complies with the Americans with Disabilities Act and makes all reasonable accommodations for the disabled to participate in public meetings. Persons requiring assistance or auxiliary aids in order to participate should call City Hall (209-831-6105), at least 24 hours prior to the meeting.

Any materials distributed to the majority of the Tracy City Council regarding any item on this agenda will be made available for public inspection in the City Clerk's office located at 333 Civic Center Plaza, Tracy, during normal business hours.

April 16, 2013

AGENDA ITEM 4

REQUEST

WORKSHOP FOR THE WASTEWATER REVENUE AND RATE PROGRAM

EXECUTIVE SUMMARY

Two projects are planned which will result in the need for an increase in future expenditures from the Wastewater Fund. These changes in future expenditures have been analyzed to determine the impact to wastewater rates. The purpose of the workshop is to review the rate analysis and the proposed rate increases.

DISCUSSION

Expenses have been carefully managed and wastewater rates have been unchanged since 2006. The revenue generated from rates has been adequate to fund the ongoing maintenance and operations for the wastewater treatment plant and collection system. Two significant projects are scheduled for the upcoming years which will require a rate increase in order to provide project funding.

The first project is the installation of a second wastewater outfall pipeline. The existing outfall pipeline was installed in the late 1970's so it will be nearly 40 years old by the time a second outfall can be constructed. The existing outfall is asbestos cement pipe. Asbestos cement is a very brittle material which can be easily damaged. There is currently only one outfall pipeline which makes it a single point of failure, meaning if the pipeline broke; the City would have no other way to dispose of 9 million gallons per day of treated wastewater. Were there to be a significant release of treated wastewater to the environment, there would likely be significant regulatory fines and the potential for third party lawsuits. The existing outfall pipeline is currently at capacity. The new pipeline will have capacity for 16 million gallons per day. The new second outfall pipeline would parallel the existing outfall pipeline and would be approximately 3.5 miles long. Final design and permitting are nearly complete and the project will be ready for bidding this year. A redundant pipeline is needed in order to ensure continued long-term reliable disposal of the treated wastewater effluent.

The second project is the proposed desalination project. The City currently discharges treated wastewater that contains salinity levels that exceed Delta water quality standards. A desalination facility, in conjunction with an ethanol production facility, will provide a sustainable method to reduce salinity. Capital costs will be funded by the project proponent, CST. It is anticipated that the City will contract with CST for salinity removal. This project is still in beginning design stage and funding will likely be needed in two years.

These changes in future expenditures have been analyzed and determined to result in the need for rate increases of 9.68% and 9.85%. The existing rate for single family homes is $31.00 per month and is proposed to increase to $34.00 per month, and in

approximately July 2015, increase to $37.35. Rates for commercial and industrial users increase a similar percentage.

At the present time, it is anticipated that any rate adjustment would become effective in approximately three months. CH2M Hill developed the wastewater rate model and this update utilizes the same structure with current and projected revenues and expenses.

STRATEGIC PLAN

This agenda item is a routine operational item and does not relate to the Council's four strategic plans.

FISCAL IMPACT

The outfall pipeline project is included in the Capital Improvement Program as CIP 74083. The estimated cost for construction is $20 to $25 million. The existing ratepayers have a proportionate share of the project cost and a portion will be funded by future development. The desalination project, if it is constructed, will require increased operational expenditures of approximately $1.5 million per year. There is no fiscal impact to the General Fund as all expenses are related to the Wastewater Enterprise Fund.

RECOMMENDATION

That the City Council at the close of the workshop, direct staff to distribute a notice of the proposed rate increase as required by Proposition 218 in preparation of adopting revised wastewater rates. The proposed rate is $34.00 per month for Single-Family Residential as shown in Exhibit A.

Prepared by: Steve Bayley, Deputy Director of Public Works

Approved by: Rod Buchanan, Interim Director of Public Works

Approved by: R. Leon Churchill, Jr., City Manager

Attachment: Exhibit A – Wastewater User Changes
2013-2014 Wastewater Rate Study

EXHIBIT A

Wastewater User Charges

Residential (Monthly Charge)		
Single-Family Residential		$34.00
Multiple-Family Dwellings		$28.75
Septage (per 1,000 gallons)		$66.90
Commercial Classes		
(Minimum Monthly Charge)		
Commercial I	(Volume Charge per ccf)	$1.98
Commercial II	(Volume Charge per ccf)	$2.91
Commercial III	(Volume Charge per ccf)	$4.89
(ccf = 100 cubic feet or 748 gallons)		
Industrial Charges		
Capacity Charges		
Flow ($ per mgd per year)		$285,430
BOD ($ per lb.)		$31.07
SS ($ per lb.)		$47.47
Use Charges		
Flow ($ per mg)		$767
BOD ($ per 1,000 lbs.)		$521.19
SS ($ per 1,000 lbs.)		$249.83
Industrial Charges (Leprino Foods)		
Capacity Charges		
Flow ($ per mgd per year)		$258,289
BOD ($ per lb.)		$28.23
SS ($ per lb.)		$43.13
Use Charges		
Flow ($ per mg)		$334
BOD ($ per 1,000 lbs.)		$489.19
SS ($ per 1,000 lbs.)		$232.35

(mgd = million gallons per day)
(mg = million gallons)

Table 2-2
Summary of User Classes
City of Tracy
2013-2014

User Groups	Number in Group	Estimated Non-Landscape Water Use (CCF)	% to Sewer	Design Capacity Flow mgd	BOD mg/L	SS mg/L	BOD lbs/day	SS lbs/day	Days Discharging	Total Annual Volume MG	BOD 1000 Lbs	SS 1000 Lbs
Residential, Commercial, and Special Classes												
Single-Family Residential	21,618			6.49	210	250	11,359	13,522	365	2,367	4,146	4,936
Multiple-Family Dwellings	502			0.61	210	250	1,073	1,277	365	224	392	466
Commercial I	396	315,000	90%	0.68	150	150	856	856	310	212	265	265
Commercial II	296	490,000	90%	1.06	300	300	2,662	2,662	310	330	825	825
Commercial III	52	38,000	90%	0.08	600	600	413	413	310	26	128	128
Septage	0	0	100%	0.01	5,400	12,000	225	500	365	2	82	183
Subtotal	**22,864**	**843,000**		**8.93**			**16,587**	**19,230**		**3,160**	**5,838**	**6,803**
Industrial Users												
H.J. Heinz property	0			0.00	0	0	0	0	0	0	0	0
Leprino	1			0.63	0	0	420	500	365	209	162	136
Laura Scudders	0			0.00	0	0	0	0	0	0	0	0
Other Industrial Users	0			0.00	0	0	0	0	0	0	0	0
Other Industrial Users	0			0.00	0	0	0	0	0	0	0	0
Subtotal	**1**			**0.63**	**0**	**0**	**420**	**500**	**0**	**209**	**162**	**136**
Special Classification	0											
Infiltration/Inflow	0			0.35	0	0	0	0	0	50	0	0
Subtotal	**0**			**0.35**	**0**	**0**	**0**	**0**	**0**	**50**	**0**	**0**
	0											
Total 2013-14	**22,865**			**9.91**	**0**	**0**	**17,007**	**19,730**	**0**	**3,419**	**6,000**	**6,939**
Total 2014-15	23,104			10.06	0	0	17,284	20,030	0	3,468	6,093	7,039
Total 2015-16	23,343			10.21	0	0	17,561	20,329	0	3,517	6,185	7,140
Total 2016-17	23,582			10.35	0	0	17,838	20,629	0	3,566	6,277	7,241

Table 2-3
New Accounts
City of Tracy

	2014-15	Annual Increase	2015-16	Cumulative Annual Increase	2016-17	Cumulative Annual Increase
Residential, Commercial, and Special Classes						
Single-Family Residential	200	0.93%	200	1.85%	200	2.78%
Multiple-Family Dwellings	7	1.20%	6	2.39%	6	3.59%
Commercial I	12	5.05%	20	10.10%	20	15.15%
Commercial II	12	4.05%	12	8.11%	12	12.16%
Commercial III		1.92%	1	3.85%	1	5.77%
Septage						
Total New Accounts	**231**		**239**		**239**	
Cumulative Increase	1.05%		2.09%		3.14%	

Table 3-1
Revenue Requirements
City of Tracy

Operating Cost Summary			Actual 2009-10	Actual 2010-11	Actual 2011-12	Actual 2012-13	Budgeted 2013-14	Projected 2014-15	Projected 2015-16	Projected 2016-17
	Inflation							3.5%	3.5%	3.5%
	Cumulative						100.0%	103.5%	107.1%	110.9%
Fund 420 Programs	Program 5361 (2521)--Sewer Lift Stations		95,793	156,431	96,512	138,260	134,260	138,959	143,823	148,856
	Program 5363 (2523)--Sewer Plant Maintenance		1,250,909	1,228,628	1,323,337	1,363,910	1,349,540	1,396,774	1,445,661	1,496,259
	Program 5366 (2531)--Wastewater Plant Operations		3,006,191	2,899,390	3,059,823	3,206,490	3,238,960	3,352,324	3,469,655	3,591,093
	Program 5353 (2562)--Sewer Collection		748,094	1,494,898	1,478,063	1,524,690	1,547,920	1,602,097	1,658,171	1,716,207
	Additional Plant Operation costs		0	0	0	0	0	0	0	1,500,000
Shared Funds, Fund 521 Share	Program 5870 (1441)--Revenue Collection		203,850	222,400	248,700	248,700	250,000	258,750	267,806	277,179
	Program 5311 (2411)--Public Works Administration		27,570	24,600	25,760	24,900	25,000	25,875	26,781	27,718
	Program 5663 (2423)--Utilities Engineering		31,919	31,699	70,130	96,680	100,000	103,500	107,123	110,872
	Program 5367 (2541)--Utilities Quality Control		663,816	621,523	614,060	788,150	750,000	776,250	803,419	831,538
Equipment Acquisition (Replacement) 593x (P153X)			437,956	69,879	148,000	104,600	50,000	51,750	53,561	55,436
Rate Stabilization			0	0	0	0	0	0	0	0
Program 5921--Indirect Costs			0	170,610	164,330	207,600	213,830	217,250	212,900	217,160
Subtotal O&M Costs			6,698,944	7,191,644	7,466,915	8,009,490	7,969,510	8,244,379	8,520,978	10,316,021
plus: Program 5951 (Special Reserves)			0	0	0	0	0	0	0	0
less: Investment Earnings			0	0	0	0	0	0	0	0
Miscellaneous Revenues			0	0	0	0	0	0	0	0
Other Financing Sources			0	0	0	0	0	0	0	0
NET O&M COSTS			6,698,944	7,191,644	7,466,915	8,009,490	7,969,510	8,244,379	8,520,978	10,316,021
	Annual Increase		0.00%	7.35%	3.83%	7.27%	-0.50%	3.45%	3.36%	21.07%
Capital Costs										
			0	0	0	0	0	0	0	0
Wastewater Revenue Refunding Bonds, Series 2003			356,208	352,608	347,923	352,519	0	0	0	0
2004 Wastewater COPs			1,908,998	1,907,588	1,904,528	1,904,028	1,900,918	1,900,828	1,898,755	1,894,815
WWTP Phase 2A			0	0	0	0	0	950,000	950,000	950,000
Capital Improvement				4,869,238	4,897,156	1,398,154	2,490,000	1,370,000	2,135,000	1,400,000
TOTAL CAPITAL COSTS			4,376,026	7,129,433	7,149,606	3,654,700	4,390,918	4,220,828	4,983,755	4,244,815
TOTAL ANNUAL COSTS			11,074,970	14,321,077	14,616,521	11,664,190	12,360,428	$12,465,207	$13,504,733	$14,560,836
	Annual Increase	0.00%		29.31%	2.06%	-20.20%	5.97%	0.85%	8.34%	7.82%

Table 3-2
Capital Improvement Projects, F521 Wastewater
City of Tracy

Project #	Project Title	Total Projected Expenditures, All Funds	Percent Allocated to All Users	Percent Allocated to All Users w/o Leprino	Projected Expenditures, Fund 523 Wastewater only 2013-14	2014-15	2015-16	2016-17
74004	Lining Sludge Drying Beds, WWTP	$1,551,480	0%	0%	$0	$0	$0	$0
74059	WW Collection System, Capacity Study-CSOM	$753,957	0%	0%	$0	$0	$0	$0
74064	Reclaimed Water Pipe, 11th St, west of Lammers	$1,893,600	0%	0%	$0	$0	$0	$0
74069	WW Lines Extension-to Chrisman Site	$1,819,000	0%	0%	$0	$0	$0	$0
74072	Replace Digester Cover, WWTP	$4,319,950	0%	0%	$0	$0	$0	$0
74073	NPDES Permit Studies	$2,638,000	0%	0%	$0	$0	$0	$0
74079	Digester Boiler #2, WWTP	$223,308	0%	0%	$0	$0	$0	$0
74081	GIS for Utilities	$1,875,000	0%	0%	$0	$0	$0	$0
74082	WW Lines Replacement Program-FY 09-10 Phase	$568,700	0%	0%	$0	$0	$0	$0
74083	WWTP Expansion-Phase 2A	$25,000,000	0%	0%	$0	$0	$0	$0
74084	WW Upgrades-East Side	$2,115,200	0%	0%	$0	$0	$0	$0
74087	DAFT Replacement-WWTP	$800,000	0%	0%	$0	$0	$0	$0
74088	WW Lines Replacement Program-FY 10-11	$260,000	0%	0%	$0	$0	$0	$0
74089	WWTP Replacement Program-FY 10-11	$230,000	0%	0%	$0	$0	$0	$0
74091	Wastewater Recycling Pipeline, Phase 1	$3,045,000	0%	0%	$0	$0	$0	$0
74092	WW Lines Replacement Program-FY12	$260,000	0%	0%	$0	$0	$0	$0
74093	WWTP Replacement Program-FY 12	$230,000	0%	0%	$0	$0	$0	$0
74094	WWCS Capacity Maint Mgmt System-Data Acquisition	$50,000	0%	0%	$0	$0	$0	$0
74095	Wastewater Discharge Permit Studies-FY 12	$50,000	0%	0%	$0	$0	$0	$0
74096	WW Lines Replacement-Corral Hollow Road, north of GL	$600,000	0%	0%	$0	$0	$0	$0
74097	Upgrade WW Collection System-Hansen Road	$1,505,000	0%	0%	$0	$0	$0	$0
74098	WW Lines Replacement Program-FY 12-13 Phase	$265,000	0%	0%	$0	$0	$0	$0
74099	WWTP Replacement Program-FY 12-13 Phase	$240,000	0%	0%	$0	$0	$0	$0
74100	Wastewater Discharge Permit Studies-FY 13	$50,000	0%	0%	$0	$0	$0	$0
74101	Security Cameras for WWTP	$30,000	0%	0%	$0	$0	$0	$0
74102	Laboratory Information Management System	$32,000	0%	0%	$0	$0	$0	$0
74103	WW Lines Replacement-Bessie Ave, Emerson to Grant Line Road	$960,000	0%	100%	$400,000	$370,000	$100,000	$0
74PP-01b	WW Lines Replacement Program-Future Phases	$1,090,000	0%	100%	$0	$0	$275,000	$280,000
74PP-032	WWTP Expansion, Phase 2B	$10,375,000	100%	0%	$1,550,000	$700,000	$1,500,000	$700,000
74PP-033	Force Main Expansion-Larch Road	$2,008,800	0%	0%	$0	$0	$0	$0
74PP-049	WWTP Expansion, Phase 3	$14,000,000	0%	0%	$0	$0	$0	$0
74PP-54b	WWTP Replacement Program-Future Phases	$1,020,000	100%	0%	$200,000	$300,000	$260,000	$270,000
74PP-064	Wastewater Conveyance for Tracy Gateway, Phase 1	$2,147,500	0%	0%	$0	$0	$0	$0
74PP-065	Reclaimed WD System for Tracy Gateway Area	$553,500	0%	0%	$0	$0	$0	$0
74PP-067	Reclaimed Water Improvements for Tracy Gateway Area	$15,866,900	0%	0%	$0	$0	$0	$0
74PP-069	WWCS Improvements-NE Industrial Area #2-Phase 2	$6,500,000	0%	0%	$0	$0	$0	$0
74PP-101	WWTP Expansion-Phase 4	$105,100,000	0%	0%	$0	$0	$0	$0
Waste	Wastewater Recycling Pipeline, Phase 2	$1,500,000	0%	0%	$0	$0	$0	$0
74PP-108	Wastewater Discharge Permit Studies-Future Phases	$200,000	100%	0%	$340,000	$0	$0	$150,000
0	0	$0			$0	$0	$0	$0
0	0	$0			$0	$0	$0	$0
0	0	$0			$0	$0	$0	$0
0	0	$0			$0	$0	$0	$0
0	Unscheduled Improvements							
	521 Wastewater Fund	$211,726,895			$2,490,000	$1,370,000	$2,135,000	$1,400,000
	Allocated to All Users				$2,090,000	$1,000,000	$1,760,000	$1,120,000
	Allocated to All Users, w/o Leprino				$400,000	$370,000	$375,000	$280,000

Table 4-1
Capital Cost Allocation
City of Tracy

						Portion of Flow allocated to Infiltration/Inflow						4.7%
						Capital Recovery Factor						5.0%
	Estimated	Useful	Loading Parameters			Capital Recovery	Annual Capital		Cost Allocations			
Plant	Cost	Life	Flow	BOD	SS	Factor	Recovery	I/I	Flow	BOD	SS	
Headworks												
Structure (40%)	$1,080,000	40	100%			0.0583	$62,940	$2,222	$60,718	$0	$0	
Equipment (60%)	$1,620,000	15			100%	0.0963	$156,075	$0	$0	$0	$156,075	
Primary Treatment												
Structure (60%)	$3,240,000	40		35%	65%	0.0583	$188,821	$0	$0	$66,087	$122,734	
Equipment (40%)	$2,160,000	25	100%			0.0710	$153,257	$5,411	$147,847	$0	$0	
Secondary Treatment												
Structure (60%)	$16,080,000	40		35%	65%	0.0583	$937,113	$0	$0	$327,989	$609,123	
Equipment (40%)	$10,720,000	25	100%			0.0710	$760,610	$26,854	$733,757	$0	$0	
Tertiary Treatment & Disinfection												
Deep bed filters												
Structure (50%)	$4,150,000	40	100%			0.0583	$241,854	$8,539	$233,316	$0	$0	
Equipment (50%)	$4,150,000	20	100%			0.0802	$333,007	$11,757	$321,250	$0	$0	
Chemical Handling, Storage & Feed System												
Structure (50%)	$1,850,000	30	100%			0.0651	$120,345	$4,249	$116,096	$0	$0	
Equipment (50%)	$1,850,000	12	100%			0.1128	$208,727	$7,369	$201,358	$0	$0	
Additional Chlorine Contact Tanks												
Structure (100%)	$2,400,000	40	100%			0.0583	$139,868	$4,938	$134,930	$0	$0	
Sludge Facilities (Solids Handling)												
Structure (60%)	$4,020,000	40		50%	50%	0.0583	$234,278	$0	$0	$117,139	$117,139	
Equipment (40%)	$2,680,000	15		50%	50%	0.0963	$258,197	$0	$0	$129,099	$129,099	
Building and Site work												
Structure (100%)	$2,800,000	40	100%			0.0583	$163,179	$5,761	$157,418	$0	$0	
Effluent Pumping and Conveyance												
Post Aeration Facility												
Structure (75%)	$1,050,000					0.0583	$61,192	$2,160	$59,032	$0	$0	
Equipment (25%)	$350,000					0.0802	$28,085	$992	$27,093	$0	$0	
Parallel Outfall & Diffuser to Old River												
Structure (100%)	$9,500,000					0.0513	$487,555	$17,213	$470,342	$0	$0	
Thermal Plan Compliance												
Structure (50%)	$3,900,000					0.0710	$276,715	$9,770	$266,945	$0	$0	
Equipment (50%)	$3,900,000					0.0963	$375,735	$13,265	$362,469	$0	$0	
TOTALS	$77,500,000						$5,187,554	$120,500	$3,292,570	$640,315	$1,134,169	
				Parameter Allocation Percentages				2.32%	63.47%	12.34%	21.86%	

(a) Total capital cost shown is for all phases of the WWTP expansion. The total excludes additional mark-up costs such as contingency, engineering and administration, and program management.

Table 4-2
Unit Cost Determination
City of Tracy

Cost Category	Allocable Costs 2013-14	Parameters	Allocation Percentages	Total Cost Allocated	Total Quantities	Unit Cost For Each Parameter	
Operations and Maintenance-	$1,682,180	I/I	1.44%	$24,252			
Collection w/o Leprino		FLOW	80.56%	$1,355,136	3,160	$428.83	per MG
		BOD	11.00%	$185,040	5,838	$31.69	per 1,000 lbs
		SS	7.00%	$117,753	6,803	$17.31	per 1,000 lbs
Operations and Maintenance-	$5,702,330	I/I	1.44%	$82,209			
Plant Operations + Rate Stabilization		FLOW	19.56%	$1,115,280	3,369	$331.04	per MG
		BOD	51.00%	$2,908,188	6,000	$484.68	per 1,000 lbs
		SS	28.00%	$1,596,652	6,939	$230.10	per 1,000 lbs
Debt Service - Collection Service	$0	I/I	3.48%	$0			
		FLOW	96.52%	$0	10	$0	per mgd
		BOD	0.00%	$0	17,007	$0.00	per lb/day
		SS	0.00%	$0	19,730	$0.00	per lb/day
New Debt Service -	$1,900,918	I/I	2.32%	$44,156			
WWTP Bond and COP		FLOW	63.47%	$1,206,523	10	$126,159.04	per mgd
		BOD	12.34%	$234,636	17,007	$13.80	per lb/day
		SS	21.86%	$415,603	19,730	$21.06	per lb/day
Capital Improvements, All Users	$2,090,000	I/I	2.32%	$48,548			
		FLOW	63.47%	$1,326,535	10	$138,707.96	per mgd
		BOD	12.34%	$257,975	17,007	$15.17	per lb/day
		SS	21.86%	$456,943	19,730	$23.16	per lb/day
Capital Improvements, All	$400,000	I/I	2.32%	$9,291			
Users except Leprino		FLOW	63.47%	$253,882	9	$28,419.10	per mgd
		BOD	12.34%	$49,373	16,587	$2.98	per lb/day
		SS	21.86%	$87,453	19,230	$4.55	per lb/day
General and Administrative Costs Assessed at a Flat Charge per Connection	$585,000				22,865	$25.58	per account
Total Costs Allocated	$12,360,428						

Table 4-3
UNIT COST DETERMINATION
CITY OF TRACY

COST CATEGORY	PARAMETERS		UNIT COSTS 2014-15	2015-16	2016-17
Operations and Maintenance-	I/I		$25,100	$25,979	$26,888
Collection w/o Leprino	FLOW	per MG	$437.05	$445.52	$454.26
	BOD	per 1,000 lbs	$32.29	$32.91	$33.55
	SS	per 1,000 lbs	$17.65	$18.01	$18.38
Operations and Maintenance-	I/I		$85,028	$87,831	$112,485
Plant Operations + Rate Stabilization	FLOW	per MG	$337.47	$343.65	$433.96
	BOD	per 1,000 lbs	$493.70	$502.37	$633.91
	SS	per 1,000 lbs	$234.59	$238.91	$301.73
Debt Service - Collection Service	I/I		$0	$0	$0
	FLOW	per MGD	$0	$0	$0
	BOD	per lb/day	$0.00	$0.00	$0.00
	SS	per lb/day	$0.00	$0.00	$0.00
New Debt Service - WWTP Bond and COP	I/I		$66,221	$66,173	$66,081
	FLOW	per MGD	$186,346	$183,441	$180,503
	BOD	per lb/day	$20	$20.02	$19.68
	SS	per lb/day	$31	$30.64	$30.15
Capital Improvements, All Users	I/I		$23,229	$40,882	$26,016
	FLOW	per MGD	$65,365	$113,332	$71,064
	BOD	per lb/day	$7	$12.37	$7.75
	SS	per lb/day	$11	$18.93	$11.87
Capital Improvements, All Users except	I/I		$8,595	$8,711	$6,504
Leprino	FLOW	per MGD	$25,863	$25,796	$18,960
	BOD	per lb/day	$2.71	$2.70	$1.98
	SS	per lb/day	$4.14	$4.13	$3.04
GENERAL AND ADMINISTRATIVE COSTS ASSESSED AT A FLAT CHARGE PER CONNECTION		per account	$26.21	$26.85	$27.50

Table 4-4
Annual Revenues Needed
City of Tracy
2013-14

Industry	Number in Group	O&M Collection	O&M Plant	Debt Service	New Debt Service	Capital Improvements All Users	Capital Improvements All Users, Except Leprino	General and Admin	Annual Revenue Required	Annual Revenue Required Future Years 2014-15	2015-16	2016-17
Residential, Commercial, and Special Classes												
Single-Family Residential	21,618	$1,231,957	$3,928,730	$0	$1,259,725	$1,385,028	$279,612	$553,096	$8,638,147	$8,672,795	$9,321,791	$10,012,562
Multiple-Family Dwellings	502	$116,338	$371,004	$0	$118,960	$130,793	$26,405	$12,844	$776,345	$780,369	$842,643	$909,117
Commercial I	396	$103,938	$259,820	$0	$116,132	$127,683	$25,879	$10,132	$643,584	$668,454	$753,951	$817,602
Commercial II	296	$181,903	$699,132	$0	$227,055	$249,640	$50,273	$7,573	$1,415,575	$1,461,203	$1,623,501	$1,797,238
Commercial III	52	$17,243	$99,968	$0	$24,806	$27,273	$5,452	$1,330	$176,073	$178,616	$193,444	$215,399
Septage	0	$6,549	$82,468	$0	$14,278	$15,698	$3,088	$0	$122,081	$122,013	$128,748	$145,471
Subtotal	22,864	$1,657,928	$5,441,122	$0	$1,760,955	$1,936,116	$390,709	$584,974	$11,771,804	$11,883,450	$12,864,077	$13,897,390
Industrial Users												
H.J. Heinz		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Leprino	1	$0	$178,999	$0	$95,807	$105,336	$0	$26	$380,168	$373,585	$411,080	$425,472
Laura Scudders	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Industrial Users	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Industrial Users	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	1	$0	$178,999	$0	$95,807	$105,336	$0	$26	$380,168	$373,585	$411,080	$425,472
Special Classifications	0											
Infiltration/Inflow	0	$24,252	$82,209	$0	$44,156	$48,548	$9,291	$0	$208,455	$208,172	$229,576	$237,974
Subtotal	0	$24,252	$82,209	$0	$44,156	$48,548	$9,291	$0	$208,455	$208,172	$229,576	$237,974
GRAND TOTAL	22,865	$1,682,180	$5,702,330	$0	$1,900,918	$2,090,000	$400,000	$585,000	$12,360,428	$12,465,207	$13,504,733	$14,560,836

Table 5-1
Breakeven User Charges
City of Tracy

		Monthly Charge			
Residential	Current	2013-14	2014-15	2015-16	2016-17
		10.0%	-0.6%	6.6%	6.2%
Single-Family Residential	$31.00	**$34.10**	**$33.90**	**$36.15**	**$38.40**
Multiple-Family Dwellings	$26.55	**$28.85**	**$28.65**	**$30.55**	**$32.60**
Septage (per 1,000 gallons)		$66.90	$66.90	$70.55	$79.75

		Volume Charge per CCF			
Commercial Classes	Current	2013-14	2014-15	2015-16	2016-17
Commercial I	$1.87	$2.01	$1.99	$2.04	$1.92
Commercial II	$2.70	$2.87	$2.85	$2.93	$2.89
Commercial III	$4.38	$4.60	$4.58	$4.76	$5.03

Industrial Charges, except Leprino	Current	2013-14	2014-15	2015-16	2016-17
Capacity Charges					
Flow ($ per MGD)	$328,338	$293,286	$277,575	$322,569	$270,526
BOD ($ per lb)	$35.92	$31.94	$30.21	$35.09	$29.42
SS ($ per lb)	$54.25	$48.77	$46.18	$53.70	$45.06
Use Charges					
Flow ($ per MG)	$469	$760	$775	$789	$888
BOD ($ per 1,000 lbs)	$477.16	$516.38	$526.00	$535.28	$667.46
SS($ per 1,000 lbs)	$225.40	$247.41	$252.25	$256.92	$320.10

Charges for Leprino	Current	2013-14	2014-15	2015-16	2016-17
Flow ($ per MGD)	$244,984	$264,867	$251,711	$296,773	$251,566
BOD ($ per lb)	$27.13	$28.96	$27.50	$32.39	$27.43
SS ($ per lb)	$40.96	$44.22	$42.03	$49.57	$42.02
Use Charges					
Flow ($ per MG)	$469	$331	$337	$344	$434
BOD ($ per 1,000 lbs)	$477.16	$484.68	$493.70	$502.37	$633.91
SS($ per 1,000 lbs)	$225.40	$230.10	$234.59	$238.91	$301.73

Table 5-2
Average Rates for Fiscal Years 2013-14 and 2014-15
City of Tracy

Monthly Charge

Residential	Current	Average Rate	
Single-Family Residential	$31.00	$34.00	9.68%
Multiple-Family Dwellings	$26.55	$28.75	
Septage (per 1,000 gallons)		$66.90	

Commercial Classes

	Minimum Charge		**Volume Charge per CCF**	
	Current	Average Rate	Current	Average Rate
Commercial I	$26.55	$28.75	$1.87	$2.00
Commercial II	$26.55	$28.75	$2.70	$2.86
Commercial III	$26.55	$28.75	$4.38	$4.59

Industrial Charges, except Leprino	Current	Average Rate
Capacity Charges		
Flow ($ per MGD)	$328,338	$285,430
BOD ($ per lb)	$35.92	$31.07
SS ($ per lb)	$54.25	$47.47
Use Charges		
Flow ($ per MG)	$469	$767
BOD ($ per 1,000 lbs)	$477.16	$521.19
SS($ per 1,000 lbs)	$225.40	$249.83

Charges for Leprino	Current	Average Rate
Capacity Charges		
Flow ($ per MGD)	$244,984	$258,289
BOD ($ per lb)	$27.13	$28.23
SS ($ per lb)	$40.96	$43.13
Use Charges		
Flow ($ per MG)	$469	$334
BOD ($ per 1,000 lbs)	$477.16	$489.19
SS($ per 1,000 lbs)	$225.40	$232.35

Table 5-2b
Average Rates for Fiscal Years 2015-16 and 2016-17
City of Tracy

Residential	**Monthly Charge Proposed** 2013-14 and 2014-2015	**Average Rate** 2015-16 and 2016-17	
Single-Family Residential	$34.00	$37.30	9.71%
Multiple-Family Dwellings	$28.75	$31.60	
Septage (per 1,000 gallons)	$66.90	$75.15	

Commercial Classes	**Minimum Charge**		**Volume Charge per CCF**	
	Proposed	Average Rate	Proposed	Average Rate
Commercial I	$28.75	$31.60	$2.00	$1.98
Commercial II	$28.75	$31.60	$2.86	$2.91
Commercial III	$28.75	$31.60	$4.59	$4.89

Industrial Charges, except Leprino	Proposed	Average Rate
Capacity Charges		
Flow ($ per MGD)	$285,430	$296,548
BOD ($ per lb)	$31.07	$32.26
SS ($ per lb)	$47.47	$49.38
Use Charges		
Flow ($ per MG)	$767	$839
BOD ($ per 1,000 lbs)	$521.19	$601.37
SS($ per 1,000 lbs)	$249.83	$288.51

Charges for Leprino	Proposed	Average Rate
Capacity Charges		
Flow ($ per MGD)	$258,289	$274,170
BOD ($ per lb)	$28.23	$29.91
SS ($ per lb)	$43.13	$45.79
Use Charges		
Flow ($ per MG)	$334	$389
BOD ($ per 1,000 lbs)	$489.19	$568.14
SS($ per 1,000 lbs)	$232.35	$270.32

Final Report

2013-2014 Wastewater Rate Study

Prepared for
City of Tracy

April 2013

CH2MHILL®
2485 Natomas Park Drive
Suite 600
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Contents

Tables

Exhibits

Preface

CH2M HILL was authorized by the City of Tracy to update its sewer revenue program. The update on the City's sewer revenue program involved calculating user charges necessary to meet the City's Wastewater Enterprise Fund's fiscal years 2013-14 and 2014-15 revenue requirements. The study also projects revenue requirements and the resulting sewer rates.

The sewer revenue program was initially created in the late 1970s as part of the Environmental Protection Agency/State Water Resources Control Board (EPA/SWRCB) regulations for treatment plants receiving federal and state grant monies. These regulations were established to ensure equity among user groups. The regulations require costs to be allocated to loading parameters (flow, biochemical oxygen demand, and suspended solids) and require that all users pay the same unit charges for operating costs. The methodology followed by Tracy conforms to EPA/SWRCB guidelines.

As part of the requirements for receiving the 1975 grant monies, the City agreed to review its revenue program every 2 years. Over this time period, there has been little change in the procedure used to calculate rates. The last rate update was prepared in March 2006.

Similar to other California cities, City of Tracy is also required to upgrade its wastewater treatment plant to meet a tertiary treatment requirement and restrictive discharge requirements. These requirements are imposed through the existing National Pollutant Discharge Elimination System (NPDES) regulations. Based on the above requirement, the City's wastewater treatment facilities needed significant upgrades to meet NPDES permit requirements.

In 2003, the City sold bonds (through Certification of Participation) on the open market to provide funding for a portion of the upgrade project. The remaining funding was provided by sewer enterprise funds and state grants.

The purpose of this document is to describe the methodology and figures used in this update. The update involved obtaining financial and operating data for the water quality control facilities, determining the costs that need to be recovered through user charges, allocating these costs to customer classes, and recommending revisions to the existing sewer rates.

This document consists of five chapters. Chapter 1 describes the process followed for the sewer rate study. Chapter 2 identifies the users of the system and the wastewater characteristics. Chapter 3 describes the revenue requirements of the system. Chapter 4 reviews the cost allocation procedures. Chapter 5 describes the user charges.

Executive Summary

Because of increases in costs related to changes in regulatory requirements and the continued escalation of operating costs, the City of Tracy is projecting higher revenue requirements for the sewer enterprise. This study proposes a rate increase that brings the revenues more in line with projected costs. Upgrade of the existing treatment facility is needed to meet the regulatory requirements. Expansion of the existing treatment facility is needed to provide wastewater treatment and disposal services to new users. Since it was cost-effective to combine both upgrade and expansion projects, it is being completed as an integral project to obtain the economy of scale.

Table ES-1 shows the projected average user charges over the next two years. In all cases, additional costs in labor, and chemical and electrical costs are included.

TABLE ES-1
Average Rates for Fiscal Years 2013-14 and 2014-15
City of Tracy 2013-2014 Wastewater Rate Study

	Monthly Charge			
Residential	**Current**	**Average Rate**		
Single-Family Residential	$31.00	$34.00		
Multiple-Family Dwellings	$26.55	$28.75		
Septage (per 1,000 gallons)		$66.90		
	Minimum Charge		**Volume Charge per CCF**	
Commercial Classes	**Current**	**Average Rate**	**Current**	**Average Rate**
Commercial I	$26.55	$28.75	$1.87	$2.00
Commercial II	$26.55	$28.75	$2.70	$2.86
Commercial III	$26.55	$28.75	$4.38	$4.59
Industrial Charges, except Leprino	**Current**	**Average Rate**		
Capacity Charges				
Flow ($ per MGD)	$328,338	$285,430		
BOD ($ per lb)	$35.92	$31.07		
SS ($ per lb)	$54.25	$47.47		
Use Charges				
Flow ($ per MG)	$469	$767		
BOD ($ per 1,000 lbs)	$477.16	$521.19		
SS($ per 1,000 lbs)	$225.40	$249.83		
Charges for Leprino	**Current**	**Average Rate**		
Capacity Charges				
Flow ($ per MGD)	$244,984	$258,289		
BOD ($ per lb)	$27.13	$28.23		
SS ($ per lb)	$40.96	$43.13		
Use Charges				
Flow ($ per MG)	$469	$334		
BOD ($ per 1,000 lbs)	$477.16	$489.19		
SS($ per 1,000 lbs)	$225.40	$232.35		

Figure ES-1 shows the comparable wastewater user charges for selected communities. As shown in Figure ES-1, charges in other communities range from approximately $30 to over $50 per month.

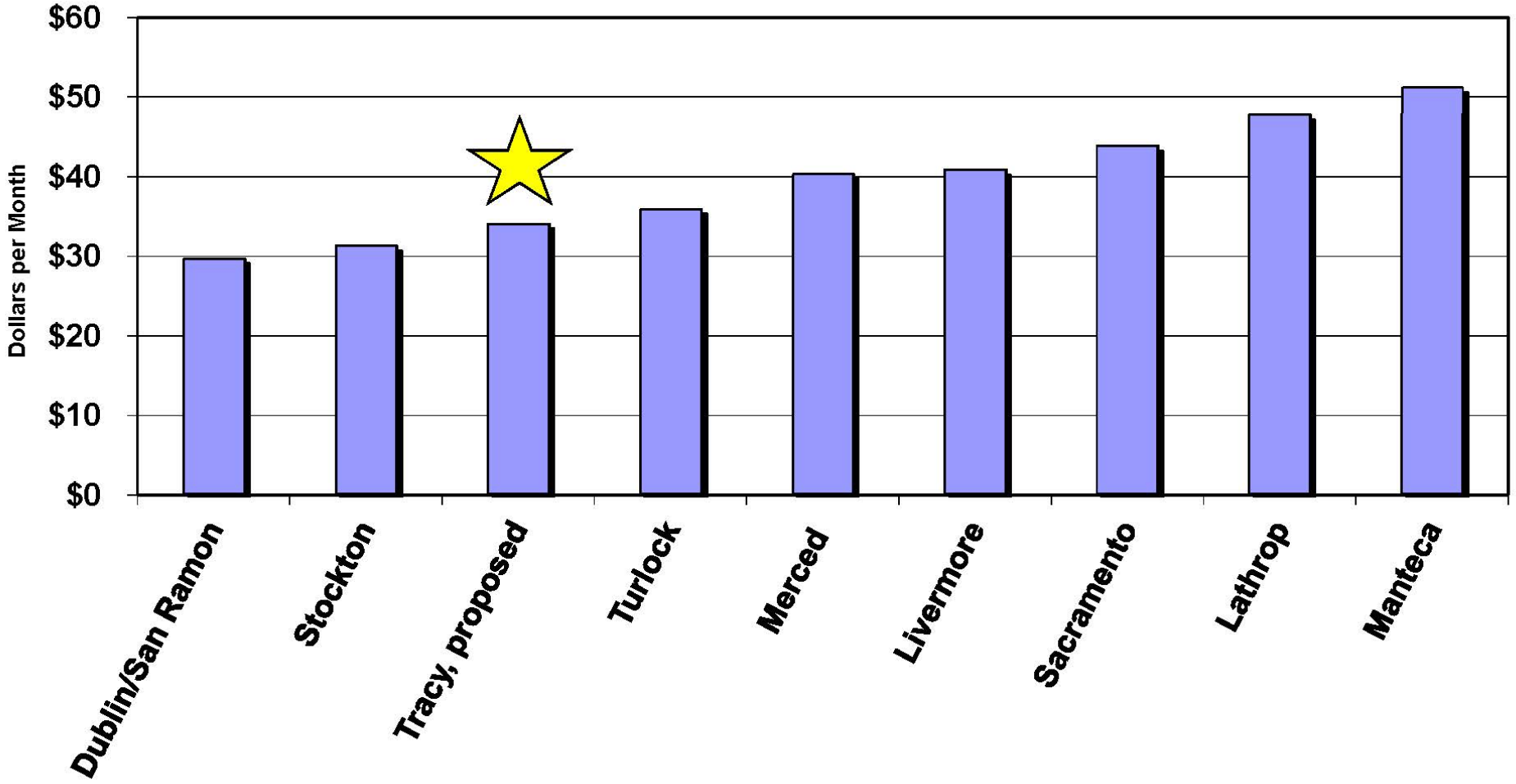

EXHIBIT ES-1
Monthly Wastewater User Charges for Selected Communities

CHAPTER 1

General Overview of the Sewer Rate Determination Process

Introduction

This chapter outlines the essential steps typically involved in generating a set of wastewater system user charges. Figures 1-1 and 1-2 show the following basic steps in this process.

- Estimate annual wastewater system revenue requirements
- Determine revenue (costs) that must be recovered from user charges
- Allocate costs to loading parameters, which usually include flow, biochemical oxygen demand (BOD), and suspended solids (SS)
- Estimate annual wastewater system user or user class sewage loadings
- Compute unit costs of wastewater treatment for each loading parameter
- Allocate user charge revenue requirements to system users or user classes

System Revenue Requirements

The first element of information required is an estimate of sewage system revenue that must be generated to cover expected (budgeted) expenditures. Typically, these include operation and maintenance (O&M) expenditures for collection and treatment, general administration expenditures, and debt service requirements. System revenue requirements are summarized below.

	Collection and Treatment Expenditures
+	General Administration Costs
+	Debt Service
=	System Revenue Requirements ($/year)

User Charge Revenues

The portion of annual system revenue requirements to be recovered through user charges depends on a sewage utility's particular policy. Regulations set by the EPA require that a wastewater system generate sufficient revenues from user charges to recover annual system O&M costs. In California, EPA regulations are enforced by the SWRCB. According to the SWRCB's Revenue Program Guidelines, Section 1-4 (A)(1), "the portion of annual revenue requirements which constitute the cost of O&M of the treatment works must be recovered

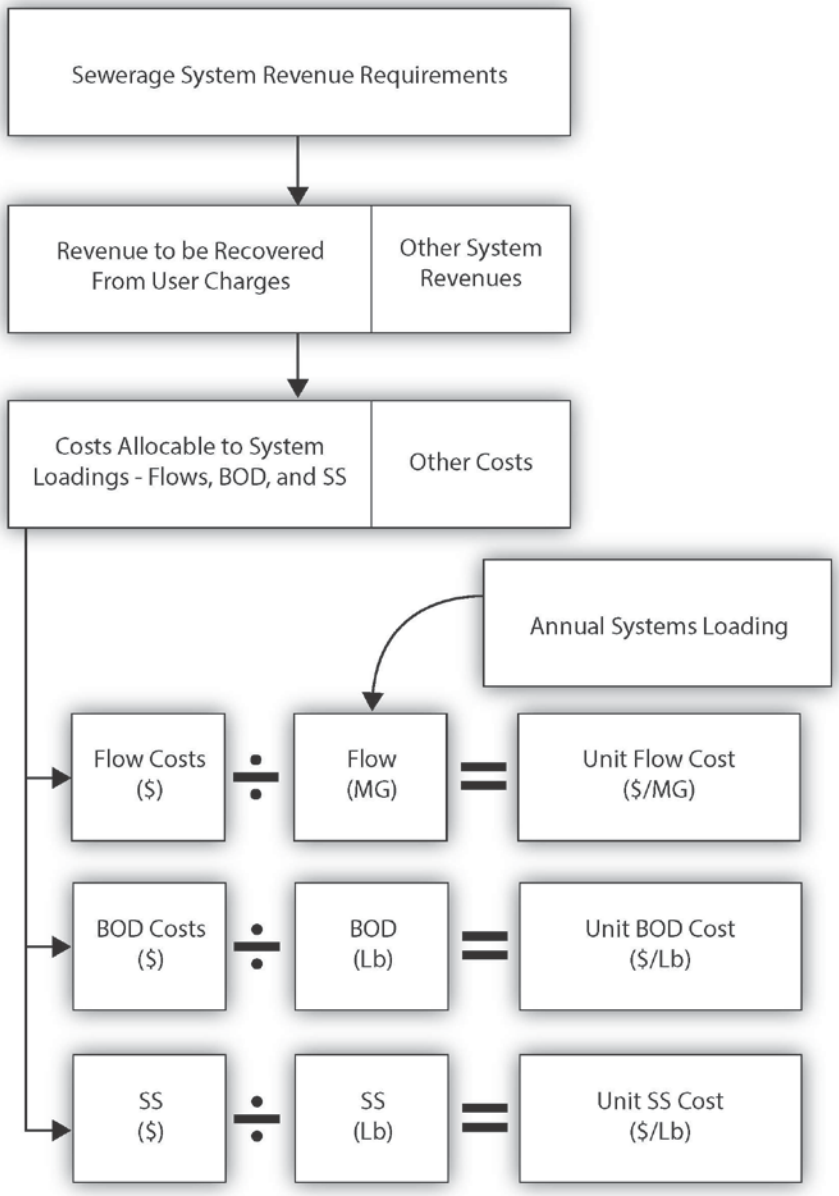

EXHIBIT 1-1
Schematic of Rate Determination

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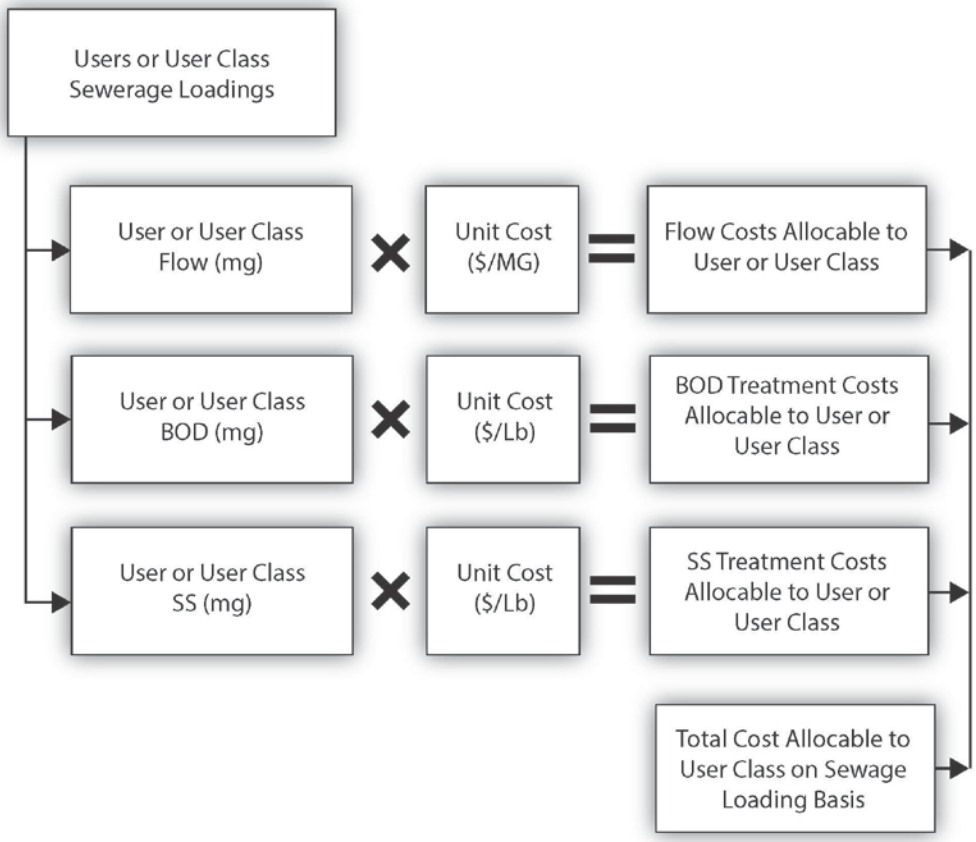

EXHIBIT 1-2
Allocation of Costs to Users

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from users by means of a user charge system based on actual use" (1995). The user charge system must result in the distribution of the O&M costs among all users in proportion to their loadings on the treatment works (Clean Water Act, Section 204 (b)(1)(A); 40 CFR 35.2140).

These regulations cover only the allocation of operating costs. The SWRCB "recommends" that capital costs be recovered in proportion to use. Capital costs can be recovered in whatever manner meets public approval. Public notice describing the impacts caused by the deviation from cost of service must be given. Other system revenues (e.g., system development charges) may be used to offset other portions of a system's total revenue. The makeup of user charge revenue is shown below.

	System Revenue Requirements
-	General Administration Costs
=	User Charge Revenue Requirements ($/year)

Allocation of Costs to Sewage Loading Parameters

The next step involves the separation of user charge revenue requirements into system costs that are directly related to the collection, transmission, and treatment of wastewater, or those costs that are only indirectly related to wastewater treatment. The latter category typically includes items such as billing costs, auditing costs, and similar types of general administrative expenditures.

An analysis of the wastewater system's treatment process and engineering judgment is used to allocate a portion of system costs to wastewater loading parameters. The result is an estimate of annual wastewater system flow costs, BOD treatment costs, and suspended solids treatment costs.

Annual Wastewater Systems Loadings

An analysis of past water consumption records, if used in conjunction with estimates of the pollutant strengths of user (or user class) wastewater flows, can be the basis for estimates of annual wastewater system loadings.

Flow is measured in millions of gallons. BOD and suspended solids loadings are measured in pounds per million gallons. These estimates should correspond closely to wastewater loadings actually monitored at the system's wastewater treatment works. Estimates of system flow and total pounds of BOD and SS to be treated can then be matched with cost allocations to determine the unit costs of wastewater treatment by loading parameter. For example, the portion of system costs determined to be associated with treatment of suspended solids is divided by estimated annual pounds of suspended solids to provide a unit cost (dollars per pound) for suspended solids treatment. Figure 1-1 illustrates this procedure.

Distribution of Treatment Costs to System Users

Estimated annual system loadings are the sum of estimated user or user class loadings. The unit costs of treatment are multiplied by individual user or user class wastewater loadings to allocate a portion of the wastewater system's revenue requirements to that user or user class. Figure 1-2 illustrates this process.

An equitable distribution of wastewater system costs to each user or user class is achieved using this method. The cost distribution will reflect contributions to the total treatment works loadings.

Distribution of Other Costs

Before a user charge can be determined, general administration and overhead costs, which should be directly allocated by wastewater loadings, must be assigned to users. Several different methods can be employed. One method of allocating these costs to users (or user classes) is to compute a uniform annual charge per sewer connection. This method can be justified because billings and meter reading costs do not vary from customer to customer.

Determination of User Charge

A wastewater rate for a user or user class can be computed in one of several ways. Typical types of wastewater rates are a uniform user charge per connection per billing period, a user charge based upon metered water use, or a combination of flat and usage or flow-based rates. The flow-based rate assumes that metered water use is an accurate indicator of a user's wastewater flows.

The result of this process should be an equitable distribution of system revenues that can be recovered through invoices to each user.

CHAPTER 2

Identification and Characteristics of Users

Until the annual and daily wastewater loadings for each user or user class have been estimated or identified, user revenue requirements cannot be equitably allocated to wastewater system users on the basis of their wastewater loadings. Ideally, this requires an estimate of each user's flow rates and strength loadings.

A more practical approach is to establish groups of users (customer classes) having similar flows and wastewater characteristics. Each customer class can then be assigned a share of the system costs based on its proportional contribution to total wastewater system loadings.

For billing purposes, the City of Tracy currently has five customer classes (two residential and three commercial) plus separate billing accounts for large industrial dischargers. Table 2-1 shows the type of users that fall into each commercial class.

TABLE 2-1
Description of Commercial User Classes
City of Tracy 2013-2014 Wastewater Rate Study

Commercial User Class	Assumed BOD/SS Concentration (mg/L)	Commercial Classes Included
I	150/150	Retail Stores, Banks, Laundries, Bars, Churches, Organizations, Institutions, Professional Offices, Services, Hospitals, Mortuaries, Schools
II	300/300	Service Stations, Repair Shops, Hotels, Motels, Light Industry, Warehousing, Shopping Centers (multiple tenants)
III	600/600	Restaurants, Bakeries (independently metered)

Table 2-2 shows the wastewater characteristics by class.

Residential Wastewater Loadings

Two residential classes are used: single-family and multiple-family. As of July 2012, the City reported 21,618 single-family user accounts and 502 multiple-family user accounts. Table 2-2 is based on single-family connections producing an average flow of 300 gallons per dwelling unit per day and the assumption that wastewater averages 210 milligrams per liter (mg/L) for BOD and 250 mg/L for SS. The flow estimate is comparable to several other Central Valley communities, while the strength estimates are consistent with the City of Tracy *Wastewater Master Plan*.

TABLE 2-2
Summary of User Classes
City of Tracy 2013-2014 Wastewater Rate Study

User Groups	Number in Group	Estimated Non-Landscape Water Use (CCF)	% to Sewer	Design Capacity Flow mgd	Design Capacity BOD mg/L	Design Capacity SS mg/L	Design Capacity BOD lbs/day	Design Capacity SS lbs/day	Days Discharging	Total Annual Volume MG	Total Annual BOD 1,000 lbs	Total Annual SS 1,000 lbs
Residential, Commercial, and Special Classes												
Single-Family Residential	21,618			6.49	210	250	11,359	13,522	365	2,367	4,146	4,936
Multiple-Family Dwellings	502			0.61	210	250	1,073	1,277	365	224	392	466
Commercial I	396	315,000	90%	0.68	150	150	856	856	310	212	265	265
Commercial II	296	490,000	90%	1.06	300	300	2,662	2,662	310	330	825	825
Commercial III	52	38,000	90%	0.08	600	600	413	413	310	26	128	128
Septage	0	0	100%	0.01	5,400	12,000	225	500	365	2	82	183
Subtotal	**22,864**	**843,000**		**8.93**			**16,587**	**19,230**		**3,160**	**5,838**	**6,803**
Industrial Users												
H.J. Heinz property	0			0.00	0	0	0	0	0	0	0	0
Leprino	1			0.63	0	0	420	500	365	209	162	136
Laura Scudders	0			0.00	0	0	0	0	0	0	0	0
Other Industrial Users	0			0.00	0	0	0	0	0	0	0	0
Other Industrial Users	0			0.00	0	0	0	0	0	0	0	0
Subtotal	**1**			**0.63**	**0**	**0**	**420**	**500**	**0**	**209**	**162**	**136**
Special Classification	**0**											
Infiltration/Inflow	0			0.35	0	0	0	0	0	50	0	0
Subtotal	**0**			**0.35**	**0**	**0**	**0**	**0**	**0**	**50**	**0**	**0**
Total 2013-14	**22,865**			**9.91**	**0**	**0**	**17,007**	**19,730**	**0**	**3,419**	**6,000**	**6,939**
Total 2014-15	23,104			10.06	0	0	17,284	20,030	0	3,468	6,093	7,039
Total 2015-16	23,343			10.21	0	0	17,561	20,329	0	3,517	6,185	7,140
Total 2016-17	23,582			10.35	0	0	17,838	20,629	0	3,566	6,277	7,241

We have also estimated that multiple-family connections produce an average flow of 1,220 gallons of water per complex per day and that the wastewater averages 210 mg/L for BOD and 250 mg/L for SS. This study uses an average of 5.0 dwelling units per multi-family complex.

Commercial Wastewater Loadings

Based on similarity of BOD and SS concentrations, three commercial classes are defined. Class I includes retail stores, banks, laundries, bars, churches, organizations, professional offices, services, hospitals, mortuaries, and schools. As of July 2012, this class included 396 accounts. Based on winter water use, estimated non-landscape water use is 31,500,000 cubic feet per year, 90 percent of which is assumed to reach the sewer. Average strengths are assumed to be 150 mg/L BOD and 150 mg/L SS. Users in this group are assumed to discharge an average of 310 days per year.

Class II includes service stations, repair shops, hotels, motels, light industry, and warehouses. As of July 2012, this class included 296 accounts. Based on winter water use, estimated non-landscape water use is 49,000,000 cubic feet per year, 90 percent of which is assumed to reach the sewer. Average strengths are assumed to be 300 mg/L BOD and 300 mg/L SS. Users in this group are assumed to discharge an average of 310 days per year.

Because of the difficulties of estimating strengths for shopping centers with multiple tenants (especially with tenant turnover), it is assumed that the strengths would fall in the Class II use. This is typical for users that include grocery stores and bakeries as one of the tenants.

Class III includes independently billed restaurants and bakeries. As of July 2012, this class included 52 accounts. Based on winter water use, estimated non-landscape water use is 3,800,000 cubic feet per year, 90 percent of which is assumed to reach the sewer. Average strengths are assumed to be 600 mg/L BOD and 600 mg/L SS. Users in this group are assumed to discharge an average of 310 days per year.

Industrial Wastewater Loadings

Leprino is the last remaining large industrial discharger in Tracy. Leprino facilities are near the WWTP and they have installed their own collection system line to the plant. Based on loadings received from Leprino over the past year, the rates were calculated based on a design capacity of 0.63 mgd of flow, 420 lbs/day of BOD, and 500 lbs/day of SS. Total annual volumes of flow, BOD, and SS were estimated using last year's contribution.

Future Loadings

Table 2-3 shows the projected new accounts for the residential and commercial users. For this study, the new accounts were assumed to have the average loadings of the existing customers. These new accounts were then used to project the future wastewater loadings.

TABLE 2-3
New Accounts
City of Tracy 2013-2014 Wastewater Rate Study

	2014-15	Annual Increase	2015-16	Cumulative Annual Increase	2016-17	Cumulative Annual Increase
Residential, Commercial, and Special Classes						
Single-Family Residential	200	0.93%	200	1.85%	200	2.78%
Multiple-Family Dwellings	7	1.20%	6	2.39%	6	3.59%
Commercial I	12	5.05%	20	10.10%	20	15.15%
Commercial II	12	4.05%	12	8.11%	12	12.16%
Commercial III		1.92%	1	3.85%	1	5.77%
Septage						
Total New Accounts	**231**		**239**		**239**	
Cumulative Increase	1.05%		2.09%		3.14%	

CHAPTER 3

System Costs and Revenue Requirements

Before rates and charges for wastewater service can be established, annual revenue requirements must be determined. The annual revenues of a wastewater treatment system must be able to recover the costs of operation, maintenance expenses, and system replacements. Replacements should include expenditures for obtaining and installing equipment and accessories necessary to maintain capacity and performance during the service life of the treatment works. Annual revenue requirements normally also include debt service and a reserve for capital improvements. Historical expenditures, the 2013-14 budget, and a projected budget through 2016-2017 are shown in Table 3-1.

System Costs

Operation and Maintenance Costs

The City of Tracy wastewater system O&M costs have been budgeted at $7.97 million for fiscal year 2013-2014. Individual O&M cost components as well as the total O&M costs have shown wide variation in the past 5 years. In the absence of a consistent O&M cost percentage increase, a 3.5 percent increase has been assumed for all future years in this study.. Increased costs are associated with additional power, chemical, and operations cost to meet new regulatory requirements.

Operating costs are offset by investment earnings, miscellaneous revenues, and other financing sources to determine the amount of costs to be recovered from user charges. Unfortunately, while the City has been able to contain costs, other revenues have decreased. No investment earnings, miscellaneous revenue, and other financing sources are planned for 2013-2014 onwards.

Capital Improvements

The capital improvement projects for the City are shown in Table 3-2. The projects are taken directly from the Capital Improvement Program Five Year Plan. Table 3-2 shows the annual outlays from Fund 521, the Wastewater Enterprise Fund.

New capital development fees are collected when new users connect to the system. Other developer contributions may be collected as a condition of development on a project by project basis. Debt issuance proceeds reflect those debt issues backed by the revenues of the wastewater enterprise. The debt service for these issues are shown in Table 3-1 as a revenue requirement to be repaid through user charges.

TABLE 3-1
Revenue Requirements
City of Tracy 2013-2014 Wastewater Rate Study

Operating Cost Summary		Actual 2009-10	Actual 2010-11	Actual 2011-12	Actual 2012-13	Budgeted 2013-14	Projected 2014-15	Projected 2015-16	Projected 2016-17
	Inflation						3.5%	3.5%	3.5%
	Cumulative					100.0%	103.5%	107.1%	110.9%
Fund 420 Programs	Program 5361 (2521)--Sewer Lift Stations	95,793	156,431	96,512	138,260	134,260	138,959	143,823	148,856
	Program 5363 (2523)--Sewer Plant Maintenance	1,250,909	1,228,628	1,323,337	1,363,910	1,349,540	1,396,774	1,445,661	1,496,259
	Program 5366 (2531)--Wastewater Plant Operations	3,006,191	2,899,390	3,059,823	3,206,490	3,238,960	3,352,324	3,469,655	3,591,093
	Program 5353 (2562)--Sewer Collection	748,094	1,494,898	1,478,063	1,524,690	1,547,920	1,602,097	1,658,171	1,716,207
	Additional Plant Operation costs	0	0	0	0	0	0	0	1,500,000
Shared Funds, Fund 521 Share	Program 5870 (1441)--Revenue Collection	203,850	222,400	248,700	248,700	250,000	258,750	267,806	277,179
	Program 5311 (2411)--Public Works Administration	27,570	24,600	25,760	24,900	25,000	25,875	26,781	27,718
	Program 5663 (2423)--Utilities Engineering	31,919	31,699	70,130	96,680	100,000	103,500	107,123	110,872
	Program 5367 (2541)--Utilities Quality Control	663,816	621,523	614,060	788,150	750,000	776,250	803,419	831,538
Equipment Acquisition (Replacement) 593x (P153X)		437,956	69,879	148,000	104,600	50,000	51,750	53,561	55,436
Rate Stabilization		0	0	0	0	0	0	0	0
Program 5921--Indirect Costs		0	170,610	164,330	207,600	213,830	217,250	212,900	217,160
Subtotal O&M Costs		6,698,944	7,191,644	7,466,915	8,009,490	7,969,510	8,244,379	8,520,978	10,316,021
plus: Program 5951 (Special Reserves)		0	0	0	0	0	0	0	0
less: Investment Earnings		0	0	0	0	0	0	0	0
Miscellaneous Revenues		0	0	0	0	0	0	0	0
Other Financing Sources		0	0	0	0	0	0	0	0
NET O&M COSTS		6,698,944	7,191,644	7,466,915	8,009,490	7,969,510	8,244,379	8,520,978	10,316,021
Annual Increase		0.00%	7.35%	3.83%	7.27%	-0.50%	3.45%	3.36%	21.07%
Capital Costs									
		0	0	0	0	0	0	0	0
Wastewater Revenue Refunding Bonds, Series 2003		356,208	352,608	347,923	352,519	0	0	0	0
2004 Wastewater COPs		1,908,998	1,907,588	1,904,528	1,904,028	1,900,918	1,900,828	1,898,755	1,894,815
WWTP Phase 2A		0	0	0	0	0	950,000	950,000	950,000
Capital Improvement			4,869,238	4,897,156	1,398,154	2,490,000	1,370,000	2,135,000	1,400,000
TOTAL CAPITAL COSTS		4,376,026	7,129,433	7,149,606	3,654,700	4,390,918	4,220,828	4,983,755	4,244,815
TOTAL ANNUAL COSTS		**11,074,970**	**14,321,077**	**14,616,521**	**11,664,190**	**12,360,428**	**$12,465,207**	**$13,504,733**	**$14,560,836**
Annual Increase			**29.31%**	**2.06%**	**-20.20%**	**5.97%**	**0.85%**	**8.34%**	**7.82%**

Debt Service

Debt service for the Wastewater Revenue Refunding Bonds was completed in 2012-13. Debt service for the 2004 Certificates of Participation is shown in Table 3-1.

Depreciation/Capital Reserves

The City does not currently fund depreciation or set aside any capital reserves. Like the majority of municipalities, the City uses a cash basis (as opposed to a utility basis) for determining wastewater user charges. Under the cash basis, capital costs include debt service, any projects funded on a pay-as-you-go basis, and any contribution to capital reserves. Depreciation is not considered in determining the rates. Under the utility basis, capital costs consist of depreciation and a return on investment on the rate base. This is common for electric utilities.

Revenue Requirements

Based on the addition of the net operating costs and the net capital costs, the net revenue requirement for 2013-2014 is $12.36 million, compared to $11.66 million in 2012-2013, an increase of 6.0 percent.

TABLE 3-2
Capital Improvement Projects, F521 Wastewater
City of Tracy 2013-2014 Wastewater Rate Study

Project #	Project Title	Total Projected Expenditures, All Funds	Percent Allocated to		Projected Expenditures, Fund 523 Wastewater only			
			All Users	All Users w/o Leprino	2013-14	2014-15	2015-16	2016-17
74004	Lining Sludge Drying Beds, WWTP	$1,551,480	0%	0%	$0	$0	$0	$0
74059	WW Collection System, Capacity Study-CSOM	$753,957	0%	0%	$0	$0	$0	$0
74064	Reclaimed Water Pipe, 11th St, west of Lammers	$1,893,600	0%	0%	$0	$0	$0	$0
74069	WW Lines Extension-to Chrisman Site	$1,819,000	0%	0%	$0	$0	$0	$0
74072	Replace Digester Cover, WWTP	$4,319,950	0%	0%	$0	$0	$0	$0
74073	NPDES Permit Studies	$2,638,000	0%	0%	$0	$0	$0	$0
74079	Digester Boiler #2, WWTP	$223,308	0%	0%	$0	$0	$0	$0
74081	GIS for Utilities	$1,875,000	0%	0%	$0	$0	$0	$0
74082	WW Lines Replacement Program-FY 09-10 Phase	$568,700	0%	0%	$0	$0	$0	$0
74083	WWTP Expansion-Phase 2A	$25,000,000	0%	0%	$0	$0	$0	$0
74084	WW Upgrades-East Side	$2,115,200	0%	0%	$0	$0	$0	$0
74087	DAFT Replacement-WWTP	$800,000	0%	0%	$0	$0	$0	$0
74088	WW Lines Replacement Program-FY 10-11	$260,000	0%	0%	$0	$0	$0	$0
74089	WWTP Replacement Program-FY 10-11	$230,000	0%	0%	$0	$0	$0	$0
74091	Wastewater Recycling Pipeline, Phase 1	$3,045,000	0%	0%	$0	$0	$0	$0
74092	WW Lines Replacement Program-FY12	$260,000	0%	0%	$0	$0	$0	$0
74093	WWTP Replacement Program-FY 12	$230,000	0%	0%	$0	$0	$0	$0
74094	WWCS Capacity Maint Mgmt System-Data Acquisition	$50,000	0%	0%	$0	$0	$0	$0
74095	Wastewater Discharge Permit Studies-FY 12	$50,000	0%	0%	$0	$0	$0	$0
74096	WW Lines Replacement-Corral Hollow Road, north of GL	$600,000	0%	0%	$0	$0	$0	$0
74097	Upgrade WW Collection System-Hansen Road	$1,505,000	0%	0%	$0	$0	$0	$0
74098	WW Lines Replacement Program-FY 12-13 Phase	$265,000	0%	0%	$0	$0	$0	$0
74099	WWTP Replacement Program-FY 12-13 Phase	$240,000	0%	0%	$0	$0	$0	$0
74100	Wastewater Discharge Permit Studies-FY 13	$50,000	0%	0%	$0	$0	$0	$0
74101	Security Cameras for WWTP	$30,000	0%	0%	$0	$0	$0	$0
74102	Laboratory Information Management System	$32,000	0%	0%	$0	$0	$0	$0
74103	WW Lines Replacement-Bessie Ave, Emerson to Grant Line Road	$960,000	0%	100%	$400,000	$370,000	$100,000	$0
74PP-01b	WW Lines Replacement Program-Future Phases	$1,090,000	0%	100%	$0	$0	$275,000	$280,000
74PP-032	WWTP Expansion, Phase 2B	$10,375,000	100%	0%	$1,550,000	$700,000	$1,500,000	$700,000
74PP-033	Force Main Expansion-Larch Road	$2,008,800	0%	0%	$0	$0	$0	$0
74PP-049	WWTP Expansion, Phase 3	$14,000,000	0%	0%	$0	$0	$0	$0
74PP-54b	WWTP Replacement Program-Future Phases	$1,020,000	100%	0%	$200,000	$300,000	$260,000	$270,000
74PP-064	Wastewater Conveyance for Tracy Gateway, Phase 1	$2,147,500	0%	0%	$0	$0	$0	$0
74PP-065	Reclaimed WD System for Tracy Gateway Area	$553,500	0%	0%	$0	$0	$0	$0
74PP-067	Reclaimed Water Improvements for Tracy Gateway Area	$15,866,900	0%	0%	$0	$0	$0	$0
74PP-069	WWCS Improvements-NE Industrial Area #2-Phase 2	$6,500,000	0%	0%	$0	$0	$0	$0
74PP-101	WWTP Expansion-Phase 4	$105,100,000	0%	0%	$0	$0	$0	$0
Wastewater User Charge Survey (May 2005)	Wastewater Recycling Pipeline, Phase 2	$1,500,000	0%	0%	$0	$0	$0	$0
74PP-108	Wastewater Discharge Permit Studies-Future Phases	$200,000	100%	0%	$340,000	$0	$0	$150,000
0	0	$0			$0	$0	$0	$0
0	0	$0			$0	$0	$0	$0
0	0	$0			$0	$0	$0	$0
0	0	$0			$0	$0	$0	$0
0	Unscheduled Improvements							
	521 Wastewater Fund	$211,726,895			$2,490,000	$1,370,000	$2,135,000	$1,400,000
	Allocated to All Users				$2,090,000	$1,000,000	$1,760,000	$1,120,000
	Allocated to All Users, w/o Leprino				$400,000	$370,000	$375,000	$280,000

CHAPTER 4

Cost Allocations

The City of Tracy's wastewater treatment plant was designed to serve different types of users within the service area. Rate equity is achieved when the annual revenue requirements have been allocated to users in proportion to the costs of treatment and conveyance of individual users.

Costs are incurred in meeting two types of expenses: capital expenses (such as debt service and capital reserves) and O&M costs. Both costs must be allocated to the various customers.

Allocation of both capital and O&M expenses involves a two-step process. The first step is to use wastewater characteristics to identify and allocate costs of collection, treatment, and disposal. The wastewater characteristics (or treatment parameters) are flow, BOD, and SS. The unit costs of treatment are then determined for each of the three sewage loadings and infiltration/inflow (I/I). The second step is to multiply customers' loadings by the calculated unit costs to allocate user charge revenues by customer or customer class.

Operating costs are allocated to users according to annual usage of the wastewater facilities. Capital costs are allocated to users according to the capacity reserved in the plant for that particular user or user group.

Capital Cost Allocation

The parameter allocation percentages used to proportion capital costs are presented in Table 4-1. The wastewater treatment plant facilities are also described in Table 4-1. Useful lives and allocation parameter percentages for each capital component were derived from SWRCB guidelines. The overall allocations used for the facilities are 3.1 percent to I/I, 62.7 percent to flow, 12.3 percent to BOD, and 21.9 percent to SS.

Operation and Maintenance Cost Allocation

The SWRCB allows three ways to allocate treatment operating costs to loading parameters: allocating costs equally among parameters (one-third flow, one-third BOD, one-third SS), allocating costs based on actual treatment processes, or allocating costs based on the capital cost allocations. Following the City's present practice, operating cost allocations are based on the actual treatment processes and the cost of providing treatment. The operating cost allocations divide costs into collection and plant operating categories. Collection system costs are allocated 82 percent to flow, 11 percent to BOD, and 7 percent to SS. Because Leprino does not utilize the collection system, they do not participate in sharing the collection system costs. Operating costs for treatment are allocated 21 percent to flow, 51 percent to BOD, and 28 percent to SS. These costs allocations are based on a review of the City's maintenance records, power requirements, and operating history.

Administrative costs are primarily customer-related and are allocated by the number of customers.

TABLE 4-1
Capital Cost Allocation
City of Tracy 2013-2014 Wastewater Rate Study

								Portion of Flow allocated to Infiltration/Inflow	**4.7%**			
								Capital Recovery Factor	**5.0%**			
			Loading Parameters						**Cost Allocations**			
Plant	**Estimated Cost**	**Useful Life**	**Flow**	**BOD**	**SS**	**Capital Recovery Factor**	**Annual Capital Recovery**	**I/I**	**Flow**	**BOD**	**SS**
Headworks												
Structure (40%)	$1,080,000	40	100%			0.0583	$62,940	$2,222	$60,718	$0	$0
Equipment (60%)	$1,620,000	15			100%	0.0963	$156,075	$0	$0	$0	$156,075
Primary Treatment												
Structure (60%)	$3,240,000	40		35%	65%	0.0583	$188,821	$0	$0	$66,087	$122,734
Equipment (40%)	$2,160,000	25	100%			0.0710	$153,257	$5,411	$147,847	$0	$0
Secondary Treatment												
Structure (60%)	$16,080,000	40		35%	65%	0.0583	$937,113	$0	$0	$327,989	$609,123
Equipment (40%)	$10,720,000	25	100%			0.0710	$760,610	$26,854	$733,757	$0	$0
Tertiary Treatment & Disinfection												
Deep bed filters												
Structure (50%)	$4,150,000	40	100%			0.0583	$241,854	$8,539	$233,316	$0	$0
Equipment (50%)	$4,150,000	20	100%			0.0802	$333,007	$11,757	$321,250	$0	$0
Chemical Handling, Storage & Feed System												
Structure (50%)	$1,850,000	30	100%			0.0651	$120,345	$4,249	$116,096	$0	$0
Equipment (50%)	$1,850,000	12	100%			0.1128	$208,727	$7,369	$201,358	$0	$0
Additional Chlorine Contact Tanks												
Structure (100%)	$2,400,000	40	100%			0.0583	$139,868	$4,938	$134,930	$0	$0
Sludge Facilities (Solids Handling)												
Structure (60%)	$4,020,000	40		50%	50%	0.0583	$234,278	$0	$0	$117,139	$117,139
Equipment (40%)	$2,680,000	15		50%	50%	0.0963	$258,197	$0	$0	$129,099	$129,099
Building and Site work												
Structure (100%)	$2,800,000	40	100%			0.0583	$163,179	$5,761	$157,418	$0	$0
Effluent Pumping and Conveyance												
Post Aeration Facility												
Structure (75%)	$1,050,000					0.0583	$61,192	$2,160	$59,032	$0	$0
Equipment (25%)	$350,000					0.0802	$28,085	$992	$27,093	$0	$0
Parallel Outfall & Diffuser to Old River												
Structure (100%)	$9,500,000					0.0513	$487,555	$17,213	$470,342	$0	$0
Thermal Plan Compliance												
Structure (50%)	$3,900,000					0.0710	$276,715	$9,770	$266,945	$0	$0
Equipment (50%)	$3,900,000					0.0963	$375,735	$13,265	$362,469	$0	$0
TOTALS	**$77,500,000**						**$5,187,554**	**$120,500**	**$3,292,570**	**$640,315**	**$1,134,169**
					Parameter Allocation Percentages			2.32%	63.47%	12.34%	21.86%

(a) Total capital cost shown is for all phases of the WWTP expansion. The total excludes additional mark-up costs such as contingency, engineering and administration, and program management.

Unit Costs

Collection system and operating costs are divided by the parameter quantities to obtain unit costs for each parameter. Table 4-2 shows the unit costs for debt service and O&M costs for fiscal year 2013-2014. Table 4-3 shows the unit costs through 2016-2017. Revenue collection and public works administration costs are allocated to customer class on a flat charge per connection.

Revenue Requirements

Revenue requirements are allocated to user classes by multiplying the unit costs shown in Table 4-2 and Table 4-3 by the wastewater loadings for each customer class outlined in Chapter 2. Table 4-4 shows the revenue requirements from each user class.

TABLE 4-2
Unit Cost Determination
City of Tracy 2013-2014 Wastewater Rate Study

Cost Category	Allocable Costs 2013-14	Parameters		Allocation Percentages	Total Cost Allocated	Total Quantities	Unit Cost For Each Parameter	
Operations and Maintenance-	$1,682,180	I/I		1.44%	$24,252			
Collection w/o Leprino		FLOW		80.56%	$1,355,136	3,160	$428.83	per MG
		BOD		11.00%	$185,040	5,838	$31.69	per 1,000 lbs
		SS		7.00%	$117,753	6,803	$17.31	per 1,000 lbs
Operations and Maintenance-	$5,702,330	I/I		1.44%	$82,209			
Plant Operations + Rate Stabilization		FLOW		19.56%	$1,115,280	3,369	$331.04	per MG
		BOD		51.00%	$2,908,188	6,000	$484.68	per 1,000 lbs
		SS		28.00%	$1,596,652	6,939	$230.10	per 1,000 lbs
Debt Service - Collection Service	$0	I/I		3.48%	$0			
		FLOW		96.52%	$0	10	$0	per mgd
		BOD		0.00%	$0	17,007	$0.00	per lb/day
		SS		0.00%	$0	19,730	$0.00	per lb/day
New Debt Service -	$1,900,918	I/I		2.32%	$44,156			
WWTP Bond and COP		FLOW		63.47%	$1,206,523	10	$126,159.04	per mgd
		BOD		12.34%	$234,636	17,007	$13.80	per lb/day
		SS		21.86%	$415,603	19,730	$21.06	per lb/day
Capital Improvements, All Users	$2,090,000	I/I		2.32%	$48,548			
		FLOW		63.47%	$1,326,535	10	$138,707.96	per mgd
		BOD		12.34%	$257,975	17,007	$15.17	per lb/day
		SS		21.86%	$456,943	19,730	$23.16	per lb/day
Capital Improvements, All	$400,000	I/I		2.32%	$9,291			
Users except Leprino			FLOW	63.47%	$253,882	9	$28,419.10	per mgd
			BOD	12.34%	$49,373	16,587	$2.98	per lb/day
		SS		21.86%	$87,453	19,230	$4.55	per lb/day
General and Administrative Costs Assessed at a Flat Charge per Connection	$585,000					22,865	$25.58	per account
Total Costs Allocated	$12,360,428							

TABLE 4-3
Unit Cost Determination
City of Tracy 2013-2014 Wastewater Rate Study

Cost Category	Parameters			Unit Costs 2014-15	2015-16	2016-17
Operations and Maintenance-	I/I			$25,100	$25,979	$26,888
Collection w/o Leprino	FLOW		per MG	$437.05	$445.52	$454.26
	BOD		per 1,000 lbs	$32.29	$32.91	$33.55
	SS		per 1,000 lbs	$17.65	$18.01	$18.38
Operations and Maintenance-	I/I			$85,028	$87,831	$112,485
Plant Operations + Rate Stabilization	FLOW		per MG	$337.47	$343.65	$433.96
	BOD		per 1,000 lbs	$493.70	$502.37	$633.91
	SS		per 1,000 lbs	$234.59	$238.91	$301.73
Debt Service - Collection Service	I/I			$0	$0	$0
	FLOW		per MGD	$0	$0	$0
	BOD		per lb/day	$0.00	$0.00	$0.00
	SS		per lb/day	$0.00	$0.00	$0.00
New Debt Service - WWTP Bond and COP	I/I			$66,221	$66,173	$66,081
	FLOW		per MGD	$186,346	$183,441	$180,503
	BOD		per lb/day	$20	$20.02	$19.68
	SS		per lb/day	$31	$30.64	$30.15
Capital Improvements, All Users	I/I			$23,229	$40,882	$26,016
	FLOW		per MGD	$65,365	$113,332	$71,064
	BOD		per lb/day	$7	$12.37	$7.75
	SS		per lb/day	$11	$18.93	$11.87
Capital Improvements, All Users except	I/I			$8,595	$8,711	$6,504
Leprino		FLOW	per MGD	$25,863	$25,796	$18,960
		BOD	per lb/day	$2.71	$2.70	$1.98
	SS		per lb/day	$4.14	$4.13	$3.04
General and Administrative Costs Assessed at a Flat Charge per Connection			per account	$26.21	$26.85	$27.50

TABLE 4-4
Annual Revenues Needed
City of Tracy 2013-2014 Wastewater Rate Study

Industry	Number in Group	O&M Collection	O&M Plant	Debt Service	New Debt Service	Capital Improvements		General and Admin	Annual Revenue Required	Annual Revenue Required Future Years		
						All Users	All Users, Except Leprino			2014-15	2015-16	2016-17
Residential, Commercial, and Special Classes												
Single-Family Residential	21,618	$1,231,957	$3,928,730	$0	$1,259,725	$1,385,028	$279,612	$553,096	$8,638,147	$8,672,795	$9,321,791	$10,012,562
Multiple-Family Dwellings	502	$116,338	$371,004	$0	$118,960	$130,793	$26,405	$12,844	$776,345	$780,369	$842,643	$909,117
Commercial I	396	$103,938	$259,820	$0	$116,132	$127,683	$25,879	$10,132	$643,584	$668,454	$753,951	$817,602
Commercial II	296	$181,903	$699,132	$0	$227,055	$249,640	$50,273	$7,573	$1,415,575	$1,461,203	$1,623,501	$1,797,238
Commercial III	52	$17,243	$99,968	$0	$24,806	$27,273	$5,452	$1,330	$176,073	$178,616	$193,444	$215,399
Septage	0	$6,549	$82,468	$0	$14,278	$15,698	$3,088	$0	$122,081	$122,013	$128,748	$145,471
Subtotal	22,864	$1,657,928	$5,441,122	$0	$1,760,955	$1,936,116	$390,709	$584,974	$11,771,804	$11,883,450	$12,864,077	$13,897,390
Industrial Users												
H.J. Heinz		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Leprino	1	$0	$178,999	$0	$95,807	$105,336	$0	$26	$380,168	$373,585	$411,080	$425,472
Laura Scudders	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Industrial Users	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Industrial Users	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	1	$0	$178,999	$0	$95,807	$105,336	$0	$26	$380,168	$373,585	$411,080	$425,472
Special Classifications	0											
Infiltration/Inflow	0	$24,252	$82,209	$0	$44,156	$48,548	$9,291	$0	$208,455	$208,172	$229,576	$237,974
Subtotal	0	$24,252	$82,209	$0	$44,156	$48,548	$9,291	$0	$208,455	$208,172	$229,576	$237,974
GRAND TOTAL	**22,865**	**$1,682,180**	**$5,702,330**	**$0**	**$1,900,918**	**$2,090,000**	**$400,000**	**$585,000**	**$12,360,428**	**$12,465,207**	**$13,504,733**	**$14,560,836**

CHAPTER 5

User Charges

The user charges for the City of Tracy are based on the actual loadings for metered users, with unmetered user charges based on a flat charge. The City's current rates as well as projected user charges through 2016-17 are shown in Table 5-1. The proposed rates reflect both the increase in revenue requirements and changes in the number of customers.

On January 21, 2003, the Tracy City Council suggested a two-year rate be used instead of making annual adjustments. Subsequent rate studies have shown average rates for the next two fiscal years. Table 5-2a shows the average rates for the next two fiscal years, and Table 5-2b shows the average rates for fiscal years 2015-16 and 2016-17.

Table 5-3 shows the residential rates for several communities near the City of Tracy. This information was compiled from each community's web site. As the table shows, the single-family residential rate for Tracy is comparable to many communities that have been required to upgrade their systems.

TABLE 5-1
Breakeven User Charges
City of Tracy 2013-2014 Wastewater Rate Study

	Monthly Charge				
Residential	**Current**	**2013-14**	**2014-15**	**2015-16**	**2016-17**
		10.0%	-0.6%	6.6%	6.2%
Single-Family Residential	$31.00	**$34.10**	**$33.90**	**$36.15**	**$38.40**
Multiple-Family Dwellings	$26.55	**$28.85**	**$28.65**	**$30.55**	**$32.60**
Septage (per 1,000 gallons)		$66.90	$66.90	$70.55	$79.75
	Volume Charge per CCF				
Commercial Classes	**Current**	**2013-14**	**2014-15**	**2015-16**	**2016-17**
Commercial I	$1.87	$2.01	$1.99	$2.04	$1.92
Commercial II	$2.70	$2.87	$2.85	$2.93	$2.89
Commercial III	$4.38	$4.60	$4.58	$4.76	$5.03
Industrial Charges, except Leprino	**Current**	**2013-14**	**2014-15**	**2015-16**	**2016-17**
Capacity Charges					
Flow ($ per MGD)	$328,338	$293,286	$277,575	$322,569	$270,526
BOD ($ per lb)	$35.92	$31.94	$30.21	$35.09	$29.42
SS ($ per lb)	$54.25	$48.77	$46.18	$53.70	$45.06
Use Charges					
Flow ($ per MG)	$469	$760	$775	$789	$888
BOD ($ per 1,000 lbs)	$477.16	$516.38	$526.00	$535.28	$667.46
SS($ per 1,000 lbs)	$225.40	$247.41	$252.25	$256.92	$320.10
Capacity Charges	**Current**	**2013-14**	**2014-15**	**2015-16**	**2016-17**
Flow ($ per MGD)	$244,984	$264,867	$251,711	$296,773	$251,566
BOD ($ per lb)	$27.13	$28.96	$27.50	$32.39	$27.43
SS ($ per lb)	$40.96	$44.22	$42.03	$49.57	$42.02
Use Charges					
Flow ($ per MG)	$469	$331	$337	$344	$434
BOD ($ per 1,000 lbs)	$477.16	$484.68	$493.70	$502.37	$633.91
SS($ per 1,000 lbs)	$225.40	$230.10	$234.59	$238.91	$301.73

TABLE 5-2A
Average Rates for Fiscal Years 2013-14 and 2014-15
City of Tracy 2013-2014 Wastewater Rate Study

	Monthly Charge				
Residential	**Current**	**Average Rate**			
Single-Family Residential	$31.00	$34.00			
Multiple-Family Dwellings	$26.55	$28.75			
Septage (per 1,000 gallons)		$66.90			
	Minimum Charge		**Volume Charge per CCF**		
Commercial Classes	**Current**	**Average Rate**	**Current**	**Average Rate**	
Commercial I	$26.55	$28.75	$1.87	$2.00	
Commercial II	$26.55	$28.75	$2.70	$2.86	
Commercial III	$26.55	$28.75	$4.38	$4.59	
Industrial Charges, except Leprino	**Current**	**Average Rate**			
Capacity Charges					
Flow ($ per MGD)	$328,338	$285,430			
BOD ($ per lb)	$35.92	$31.07			
SS ($ per lb)	$54.25	$47.47			
Use Charges					
Flow ($ per MG)	$469	$767			
BOD ($ per 1,000 lbs)	$477.16	$521.19			
SS($ per 1,000 lbs)	$225.40	$249.83			
Charges for Leprino	**Current**	**Average Rate**	**Loadings**		**Total Charge**
Capacity Charges					
Flow ($ per MGD)	$244,984	$258,289	0.63	mgd	$162,722
BOD ($ per lb)	$27.13	$28.23	420	lbs/day	$11,858
SS ($ per lb)	$40.96	$43.13	500	lbs/day	$21,564
Use Charges					
Flow ($ per MG)	$469	$334	209	mg	$69,859
BOD ($ per 1,000 lbs)	$477.16	$489.19	162	1,000 lbs	$79,249
SS($ per 1,000 lbs)	$225.40	$232.35	136	1,000 lbs	$31,599
					$376,851

TABLE 5-2B
Average Rates for Fiscal Years 2015-16 and 2016-17
City of Tracy 2013-2014 Wastewater Rate Study

	Monthly Charge				
Residential	**Proposed 2013-14 and 2014-15**	**Average Rate 2015-16 and 2016-17**			
Single-Family Residential	$34.00	$37.30			
Multiple-Family Dwellings	$28.75	$31.60			
Septage (per 1,000 gallons)	$66.90	$75.15			
	Minimum Charge		**Volume Charge per CCF**		
Commercial Classes	**Proposed**	**Average Rate**	**Proposed**	**Average Rate**	
Commercial I	$28.75	$31.60	$2.00	$1.98	
Commercial II	$28.75	$31.60	$2.86	$2.91	
Commercial III	$28.75	$31.60	$4.59	$4.89	
Industrial Charges, except Leprino	**Proposed**	**Average Rate**			
Capacity Charges					
Flow ($ per MGD)	$285,430	$296,548			
BOD ($ per lb)	$31.07	$32.26			
SS ($ per lb)	$47.47	$49.38			
Use Charges					
Flow ($ per MG)	$767	$839			
BOD ($ per 1,000 lbs)	$521.19	$601.37			
SS($ per 1,000 lbs)	$249.83	$288.51			
Charges for Leprino	**Proposed**	**Average Rate**	**Loadings**		**Total Charge**
Capacity Charges					
Flow ($ per MGD)	$258,289	$274,170	0.63	mgd	$162,722
BOD ($ per lb)	$28.23	$29.91	420	lbs/day	$11,858
SS ($ per lb)	$43.13	$45.79	500	lbs/day	$21,564
Use Charges					
Flow ($ per MG)	$334	$389	209	mg	$69,859
BOD ($ per 1,000 lbs)	$489.19	$568.14	162	1,000 lbs	$79,249
SS($ per 1,000 lbs)	$232.35	$270.32	136	1,000 lbs	$31,599
					$376,851

TABLE 5-3
Residential Sewer Rate Comparison
City of Tracy 2013-2014 Wastewater Rate Study

City	Current Rate
Dublin/San Ramon	$29.62
Stockton	$31.22
Tracy, proposed	**$34.00**
Turlock	$35.90
Merced	$40.29
Livermore	$40.75
Sacramento	$43.76
Lathrop	$47.70
Manteca	$51.25