# Attachment A Sewer Rate Increase Methodology

The methodology used to determine the sewer rates was based on several factors. The following table indicates costs associated with these factors for each sewer/sanitation district and represents only the 2007-2008 Fiscal Year. Also listed below is additional information which defines the factors and provides information regarding anticipated increases in existing expenditures, planned improvement projects, new expenditures based on interagency agreements, anticipated expenditures due to new requirements for collection systems, and contingency planning. The County sewer/sanitation districts are unique as they have relatively small customer bases to support the required activities and financial commitments. The number of connections per district and approximate age of the sewer infrastructure is presented in the subsequent table.

Components of Sewer Service Charge Rate Increase for Fiscal Year 2007-2008													
		IN DISTRICT			OUT OF DISTRICT								
Treatment Facility	Sewer District	O&M		Regulation Compliance		District CIP		Treatment		Out of District CIP		Total	
City of Burlingame	Burlingame Hills SMD	\$	109,675	\$	25,632	\$	198,425	\$	198,800	\$	5,645	\$	538,177
City of San Mateo	Crystal Springs CSD	\$	271,783	\$	70,954	\$	243,302	\$	413,254	\$ *	430,075	\$	1,429,368
South Bayside System Authority	Devonshire CSD	\$	53,162	\$	16,062	\$	91,005	\$	99,918	\$	0	\$	260,147
	Edgewood SMD	\$	4,849	\$	198	\$	0	\$	6,930	\$	0	\$	11,977
	Emerald Lake Heights SMD - Zone 1	\$	80,616	\$	39,182	\$	0	\$	71,370	\$	0	\$	191,168
	Emerald Lake Heights SMD - Zone 2	\$	140,249	\$	68,166	\$	43,665	\$	617,000	\$	0	\$	869,080
	Fair Oaks SMD	\$	1,221,690	\$	374,019	\$	755,270	\$ 2	2,031,000	\$	0	\$ 4	1,381,979
	Harbor Industrial SMD	\$	23,123	\$	12,810	\$	10,661	\$	40,260	\$	0	\$	86,854
	Kensington Square SMD	\$	8,101	\$	3,066	\$	26,287	\$	31,300	\$	0	\$	68,754
	Oak Knoll SMD	\$	12,832	\$	7,693	\$	14,010	\$	48,700	\$	0	\$	83,235
	Scenic Heights CSD	\$	5,619	\$	3,135	\$	6,485	\$	19,520	\$	0	\$	34,759
	Total	\$	1,931,699	\$	620,917	\$	1,389,110	\$	3,578,052	\$	435,720	\$ 7	7,955,498

<sup>\*</sup> A portion of the out-of-district CIP for the Crystal Springs County Sanitation District is based on a 15-year loan to finance the District's portion of the City of San Mateo's current wastewater treatment plant capital improvement project.

### **OPERATION AND MAINTENANCE (O&M)**

Projected O&M costs were calculated based on the average of actual expenditures for the 2001-02 through 2005-06 Fiscal Years and have been increased by 4% per year for the proposed rates. O&M costs include: preventative maintenance activities (Sewer Crew, Road Division, Root Control, and Pest Control), on-call and emergency service response, administration, drafting support, and computer system support. The proposed rates include a three percent (3%) contingency applied to operation and maintenance costs.

## **REGULATION COMPLIANCE**

#### **SSMP** Requirements

The SSMP must contain the following elements:

- Collection system management goals
- Organization of personnel, including the chain of command and communications
- Overflow emergency response plan
- Fat, Oils and Grease (FOG) control program
- Legal authority for permitting flows into the system, inflow/infiltration control as well as enforcement of proper design, installation, and testing standards, and inspection requirements for new and rehabilitated sewers
- Measures and activities to maintain the wastewater collection system
- Design and construction standards
- Capacity Management
- Monitoring plan for SSMP program effectiveness
- Periodic SSMP Audits, periodic SSMP updates, and implementation of program
- Communication Program

The SSMP elements will require additional funding to support the required work. The rate structure includes funding for the following key components of the SSMP:

Closed Circuit Television Inspection (CCTV) – The sewer facilities within the districts will be televised once every six years (1/6 every year) to obtain condition assessment information about the system. Last year the Department recommended televising once every three years (1/3 every year). This element has been adjusted to reduce the cost to each district.

**Spot Repairs** – Repairs to the sewer facilities will be performed as identified through the CCTV inspections. The Department has estimated that two percent (2%) of the sewer pipes televised will require repair.

**Regulatory Requirements and Reporting –** Costs associated with specific reporting requirements and development of the SSMP.

**Equipment Upgrades** – Necessary equipment replacement, upgrades, or purchases needed to continue maintaining district facilities effectively.

#### **DISTRICT CAPITAL IMPROVEMENT PROJECTS (CIP)**

Funding for the CIPs identified in the Sewer Master Plan, which have not yet been constructed have been factored into the rate structure, with the exception of the Crystal Springs County Sanitation District. The CIP list is District specific and estimated costs have been allocated to the appropriate districts. The proposed rates include a five percent (5%) contingency applied to capital improvement project costs.

## TREATMENT AND TRANSPORT

South Bayside System Authority (SBSA) provides sewage treatment for all the County sewer/sanitation districts, with the exception of the Burlingame Hills SMD and the Crystal Springs CSD. The City of Burlingame provides treatment to the Burlingame Hills SMD and the City of San Mateo provides treatment for the Crystal Springs CSD.

The following table indicates the approximate age of the district's facilities, the number of connections, the number of equivalent residential units per district, and the agencies that provide downstream transport and treatment to the County sewer/sanitation districts.

County Sewer/Sanitation District Information									
Sewer/Sanitation District	Age of Sewer Facilities (yrs)*  Number of Connections		Equivalent Residential Units	Downstream Transport Agency	Treatment Facility				
Burlingame Hills SMD	72	420	426	City of Burlingame	City of Burlingame				
Crystal Springs CSD	60	1,429	1,501	Town of Hillsborough City of San Mateo	City of San Mateo				
Devonshire CSD	51	275	293	City of San Carlos					
Edgewood SMD	1	18	18	City of Redwood City					
Emerald Lake Heights SMD – Zone 1	60	205	205	City of San Carlos	SBSA				
Emerald Lake Heights SMD – Zone 2	24	1,397	1,451	City of Redwood City	SDSA				
Fair Oaks SMD	77	7,345	12,597	City of Redwood City	]				
Harbor Industrial SMD	56	63	234	City of San Carlos					

County Sewer/Sanitation District Information								
Sewer/Sanitation District	Age of Sewer Facilities (yrs)*  Number of Connections		Equivalent Residential Units	Downstream Transport Agency	Treatment Facility			
Kensington Square SMD	51	74	74	City of Redwood City				
Oak Knoll SMD	50	114	118	118 City of Redwood City				
Scenic Heights CSD	58	55	58	City of San Carlos				

<sup>\*</sup>Age of facilities estimated based on district formation date.

**SBSA** – SBSA is preparing a multi-million dollar capital improvement plan for their treatment facility. Costs associated with the capital improvements will be passed on to their customers and have been incorporated into the rate structure. The O&M costs at the treatment plant are estimated to increase by 7% per year based on historical trends and have been factored into the proposed rates. For districts that flow through the City of San Carlos, we have calculated the rates to include the 7% increase after the 60% increase has been fully implemented.

**City of Redwood City** – The City of Redwood City incorporated SBSA increases into a 26% rate increase last year which affected the Fair Oaks SMD, Oak Knoll SMD, Kensington Square SMD, Emerald Lake Heights SMD Zone 2, and Edgewood SMD. The City is in the process of a rate increase for the 2007-08 fiscal year. The proposed rates have incorporated an anticipated increase from the City.

**City of San Carlos** – The City of San Carlos is in the second year of a 60% rate increase. The increase for the 2006-07 fiscal year was 30%, the increase for the 2007-08 fiscal year will be 22%, and the remaining 12% increase in the 2008-09 fiscal year. These increases have been incorporated into the rate calculations for Devonshire CSD, Scenic Heights CSD, Emerald Lake Heights SMD – Zone 1, and Harbor Industrial SMD.

**City of San Mateo** – The treatment costs for Crystal Springs CSD are estimated to increase by 7% for the 2007-08 fiscal year.

**City of Burlingame** – The treatment costs for Burlingame Hills SMD are estimated to increase by 10% for each fiscal year.

### **OUT OF DISTRICT CIP**

Out of District CIP expenses refer to downstream agency projects whereby the project costs can be passed through to a specific district based on existing interagency agreements. These projects include transport or treatment facility upgrades.

Crystal Springs County Sanitation District – These costs include loan payments to be made to the General Fund over a 7-year period for a \$1,000,000 loan made to the District. The loan was necessary to finance unanticipated project reimbursement obligations of the District in the amount of \$1,177,573.13 to the Town of Hillsborough for a previous capital improvement project. The Town of Hillsborough also plans to upgrade other sewer mains, which transport sewage from the Crystal Springs CSD. The estimated cost of the upgrade is \$8.6 million. Crystal Springs CSD's proportionate share of the Town's proposed project is estimated to be \$4.02 million.

The City of San Mateo will be upgrading their treatment facility and transmission lines during the next six fiscal years. The City will be completing a \$30.5 million upgrade to their treatment facility this fall and plans to construct additional upgrades to the treatment facility estimated to cost \$10 million. Additional upgrades to the City's transmission lines are estimated at \$24 million. Crystal Springs CSD's proportionate share of the City's projects has been estimated at \$6.25 million, which includes the anticipated \$1.357 Million for the current treatment plant project.