CITY OF ALBANY

WASTEWATER FINANCIAL PLAN AND RATE REVIEW

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WASTEWATER FINANCIAL PLAN AND RATE REVIEW

EXECUTIVE SUMMARY

The City of Albany (City) was incorporated in 1908 as a charter city. The City is situated in northern Alameda County between the East Bay Hills and the San Francisco Bay along Interstate 80, and is the northern gateway to Alameda County. The City owns and maintains 35 miles of sewer pipelines. These pipelines discharge to a trunk sewer (the "North Interceptor") that runs along the east shore of the San Francisco Bay. The trunk sewer is owned, operated, and maintained by East Bay Municipal Utility District, Special District 1 (EMBUD).

The City's 35 mile collection system serves a population of approximately 17,000 residents and covers an area of approximately 1.5 square miles. The wastewater collected from the City's service area is treated by EBMUD's wastewater treatment facilities in the City of Oakland. The collection system was originally constructed in the early 20th century with cross connection structures; during storm events untreated sewer flowed from the sewer collection system and discharged to streams, creeks, and the Bay.

In 1987 the State Regional Water Quality Control Board (SRWQCB) issued a Cease and Desist Order (CDO) to the cities of Albany, Berkeley, Emeryville, Oakland, Piedmont, Alameda, EBMUD, and Stege Sanitary District.

Sewer System Management Plan (SSMP) Resolution #09-36 dated July 6, 2009 was adopted by the Albany City Council to approve the combined SSMP. SSMPs have been required for public sanitary sewer collection systems by the Regional Water Quality Control Board Resolution on July 7, 2005 and by the Statewide General Waste Discharge Requirements (WDR) for Sanitary Sewer Systems, Order No. 2006-003-DWQ, adopted by the State Water Quality Control Board.

The SSMP was developed and implemented to prevent or significantly reduce Sanitary Sewer Overflows (SSOs) from public sewer systems. The goals of the SSMP are: (1) to properly manage, operate and maintain all parts of the wastewater collection system, (2) to provide adequate capacity to convey peak flows, (3) to minimize the frequency of SSOs, and (4) to mitigate the impact of SSOs.

A major objective of the SSMP is to reduce the potential for SSOs by reducing the amount of infiltration and inflow (I&I) of groundwater/stormwater into the sewer system, which then reaches the EBMUD Trunk Sewers. The City of Albany has been a leader in the San Francisco Bay region, and the entire State of California by adopting an upper lateral compliance program. This program significantly reduces I&I by requiring that homeowners demonstrate that upper laterals are "tight" upon sale of their home or construction of major improvements (improvements in excess of 5 percent of the value of

the house). Reductions in I&I reduces the amount of pumping and energy required to process wastewater at EBMUD's pump station and treatment plant during significant rainfall events.

In May of 2009 the United States Environmental Protection Agency issued an Administrative Order (AO) to EBMUD, the City of Albany, and the other EBMUD satellite communities. Prior to the issuance of the AO, EBMUD and its satellites were permitted to discharge wastewater with less than secondary treatment at specified locations during rainfall events that exceeded a recurrence interval of 5 years. The AO prohibits this practice and requires EBMUD and its satellites to "tighten" up the collection system to reduce rainfall infiltration and inflow as necessary to eliminate the wetweather discharges to the bay.

In order to meet the requirements of the AO the City will need to increase the rate at which aging wastewater collection facilities are rehabilitated and/or replaced. This will require an increase in the Capital Improvement Program expenditures. This increase was not included in the previously authorized increase in rates approved by the Council in 2007.

Figure 1
Wastewater Financial Plan and Rate Review
City of Albany
Cease and Desist Order

Sanitary Sewer Overflows (SSOs) from sewer collection systems throughout California cities and communities have often caused beach closures, pollution of creeks and a threat to public health. A consensus has developed among the public, regulatory agencies and municipal sewer agencies that there is a need to develop and implement a comprehensive Sewer System Management Plan (SSMP) to prevent or significantly reduce SSOs from public sewer systems.

1987	State Regional Water Quality Control Board (SRWQCB) issued a Cease and Desist Order (CDO) to the Cities of Albany, Berkeley, Emeryville, Oakland, Piedmont, Alameda, EBMUD and Stege Sanitary District - permission to continue to discharge treated wastewater to the SF Bay was conditioned upon each City adopting a Sewer Compliance Plan, administered under the National Pollution Elimination System (NPDES) Permit - the City's NPDES permit requires participation in regionally administered Infiltration and Inflow Correction Program (I/ICP) - since 1987 the City has replaced approximately 11 of the 35 miles of public sewer mains in the system - since 1993 the City has been proactively implementing and enforcing private sewer lateral rehabilitation program
May 2006	State Water Board adopted Statewide General Waste Discharge Requirements (WDR) for Sanitary Sewer Systems, Order No. 2006-003-DWQ - required development and implementation of Sewer System Management Plan (SSMP)
August 2006	Phase 1 City's SSMP certified to State and local Water Boards
August 2007	Phase 2 City's SSMP certified to State and local Water Boards
August 2008	Phase 3 City's SSMP certified to State and local Water Boards
May 2009	EPA issued Administrative Order (AO) for maintenance, operations, and data collection
July 6, 2009	Council adopted Resolution No. 09-36 approving combined SSMP
2012	EPA Cease and Desist - gather data and set up flow allocation plan - City CIP needs to match flow allocation

Source: City of Albany

The City is largely built-out. The City's collection system was generally designed with adequate capacity for existing and future development and does not have a history of capacity-based sewer system overflows (SSOs). The system has been designed to handle peak wet weather flows. The City has already established a process to assess current and future capacity requirements for its collection system facilities.

Capacity issues are increasingly caused by aging infrastructure rather than growth. Collection system rehabilitation projects are funded by a combination of connection fees and sewer service charges. These combined revenues are tracked in a 5-year rolling Capital Improvement Plan (CIP), which includes almost $4.5 million in project expenditures.

The City selected Bartle Wells Associates, independent public finance advisors, to prepare a financing plan to help determine whether or not long-term financing will be required to fund the SSMP. Bartle Wells Associates reviewed the City's current sewer revenue and spending programs and recommend various funding schemes including long-term financing that may be necessary to implement the SSMP program.

Sewer Enterprise Finances

The City maintains a Sewer Enterprise Fund (Enterprise) for the purpose of managing the revenues and expenses associated with its wastewater system. The Enterprise's primary revenue sources are wastewater service charges, connection and inspection fees, and interest income. Anticipated revenues for fiscal year 2009/10 are shown below. The Enterprise's current annual charge for a single-family residence is $303.48. The Enterprise also receives a fee from new connections and inspections. The current budget is based on minimal new development.

Revenue	2009/10
Service charges	$2,172,000
Connection/Inspection Fees	30,000
Interest	100,000
Total	$2,302,000

Wastewater Facilities

The City owns and maintains 35 miles of sewer mains and 10 miles of lower laterals. These pipelines discharge to a trunk sewer (the "North Interceptor") that runs along the east shore of the San Francisco Bay. The trunk sewer is owned, operated, and maintained by East Bay Municipal Utility District, Special District 1 (EBMUD).

The City's 35 mile collection system serves a population of approximately 17,000 residents and covers an area of approximately 1.5 square miles. The wastewater collected from the City's service area is treated by EBMUD's wastewater treatment facilities in the City of Oakland. The collection system was originally constructed in the early 20th century with cross connections to storm drain systems that provided for

overflows to storm drain systems through cross connection structures; untreated sewage also flowed from the sewer collection system and discharged to streams, creeks, and the Bay during storm events.

In recent years, concern about sanitary sewer overflows (SSOs) has become a critical water quality issue in the Bay Area. The San Francisco Bay Regional Water Quality Control Board (Regional Board) has initiated a regulatory program to reduce SSOs from sewers in the Bay Area. The program regulates a group of seven East Bay communities that flow to EBMUD's treatment plant. Besides Albany, these communities include Stege Sanitary District and the Cities of Alameda, Berkeley, Emeryville, Oakland, and Piedmont.

The City of Albany's collection system was generally designed with adequate capacity for existing and future development and does not have a history of capacity-based sewer system overflows (SSOs). Any capacity issues are increasingly caused by aging infrastructure rather than growth. The City has already established a process to assess current and future capacity requirements for its collection system facilities.

Spot Repair and Rehabilitation Program

The City is projecting to gradually increase the funding for spot repairs and pipeline rehabilitation. In fiscal year 2010/11spending will be approximately $470,000 and will continue to gradually increase each fiscal year. The Spot Repair and Rehabilitation Program will pay for ongoing general maintenance and repairs within the sewer system.

Capital Improvements

Over the next five years the City intends to fund almost $6 million in capital expenditures through two programs/projects: the SSMP and the Collection System Project. The SSMP will include projects such as sewer cleaning and television inspection, GIS development, and Fats, Oils, and Grease (FOG) prevention. The focus of the Collection System Project is to rehabilitate wastewater collection mains throughout the City.

Financing Plan & Minimum Reserve Fund

A combination of reserves and "pay as you go" will be used to fund the compliance program and capital projects. This financing plan has developed a minimum reserve requirement for the City to maintain. The Enterprise requires reserves for operating working cash as well as a capital reserve and depreciation reserve. The recommended minimum Operating fund balance has been developed to encompass 60% of the annual operational, administrative, and repair costs. This target is intended to equal the O&M expenses incurred each year between May and December, the gap in time each year when the City has limited revenues before the sewer service charges are collected with the property taxes. A capital/emergency minimum reserve of $1.5 million is recommended. This amount is minimal, but should be available for capital cost over-runs and

unanticipated repairs. The City can control the timing of spending on planned capital projects.

The total minimum balance would amount to almost $2.8 million for 2010/11. The Operating fund reserve should be annually adjusted based on actual operating expenses. The capital/emergency reserve fund should be adjusted at least every five years.

In order to meet this obligation, a "pay as you go" program is recommended. Under such a program the annual sewer service charge will need to be increased. Sewer service charge revenues are the only funds under City control available for this purpose. The table below shows the recommended level of future monthly service charges over the next five years.

Equivalent Residential Unit (ERU)	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
	$25.29	$28.25	$31.25	$34.25	$37.25	$40.25

Impact on Customers

To implement a rate increase, the City needs to follow certain notification procedures established by Proposition 218 passed by the voters in 1996. These procedures include the requirement to establish a basis for the rate increase. Available engineering studies and this report will establish the necessary basis. Then the City Council must call for a public hearing to discuss rates and mail a notice to properties within the City. The public hearing may be held no earlier than 45 days after notices are mailed. If less than 50% of the ratepayers protest, then the Council may approve rates adjustments up to but not exceeding the level discussed in the mailed notification. Bartle Wells Associates recommends that the City adopt rates sufficient for at least four years and preferably five years.

INTRODUCTION

The City of Albany (City) provides wastewater collection to approximately 5,700 parcels within the City. The City is facing a number of challenges, including:

- **Capital needs:** The City must fund significant capital needs. Projects are required to replace aging collection mains and to reduce Inflow and Infiltration (I&I). The City has developed the cost and timing of its capital projects within its rolling 5-year Capital Improvement Plan (CIP).
- **Additional services:** The City must conform to the requirements in the 1987 Cease and Desist Order from the State Regional Water Quality Control Board and the 2009 EPA Administrative Order that specify major facilities replacements. In addition, state and federal requirements for sewer collection agencies are becoming more stringent.

The City selected Bartle Wells Associates, Independent Public Finance Advisors, to prepare a financing plan to help determine whether or not long-term financing will be required to fund the CIP. Bartle Wells Associates reviewed the City's current sewer revenue and spending programs and recommend various funding schemes including long-term financing that may be necessary to implement the CIP.

WASTEWATER FACILITIES

The City of Albany (City) was incorporated in 1908. The City is situated in northern Alameda County between the East Bay Hills and the San Francisco Bay along Interstate 80, and is the northern gateway to Alameda County. The City owns and maintains 35 miles of sewer pipelines. These pipelines discharge to a trunk sewer (the "North Interceptor") that runs along the east shore of the San Francisco Bay. The trunk sewer is owned, operated, and maintained by East Bay Municipal Utility District, Special District 1 (EMBUD).

The City's 35 mile collection system serves a population of approximately 17,000 residents and covers an area of approximately 1.5 square miles. The wastewater collected from the City's service area is treated by EBMUD's wastewater treatment facilities in the City of Oakland. The collection system was originally constructed in the early 20th century with cross connection structures; during storm events untreated sewer flowed from the sewer collection system and discharged to streams, creeks, and the Bay.

SEWER ENTERPRISE FINANCES

The City maintains a sewer enterprise fund to meet operational and capital spending targets and to provide a quality level of service for its customers.

Sewer Enterprise Fund

All of the sewer revenues are deposited in the Sewer Enterprise Fund, and then are transferred to the General Fund to pay operational expenses. Operational expenses such as costs incurred from employee salaries and benefits, repairs, maintenance and

engineering, and operational costs associated with compliance with the system's National Pollutant Discharge Elimination System (NPDES) permit.

Revenues of the Sewer Enterprise Fund include sewer service charges, interest earnings, and connection and inspection fees. It is assumed that interest earnings will be 1.1 percent on cash reserves. A target minimum fund balance has been developed based on 60% of non-capital expenses plus a $1.5 million minimum capital reserve.

Fund Balances

For the FY 2009/10 budget, the Sewer Enterprise expects to have a total of approximately $10 million available in cash from all its funds. The majority of the funds are held in the Capital Project Fund. Not all of these funds are available for operations and capital. Certain funds are already encumbered for accounts payable and capital projects. In addition, a debt service reserve of $637,288 is restricted by revenue bond covenants. For purposes of this financial plan about $4.5 million is available for wastewater operations as of June 30, 2009. The Enterprise fund balances are shown in Table 1 below.

Table 1
Wastewater Financial Plan and Rate Review
City of Albany
Fund Balances

	Projected Fund Balance*
Capital Project Sewer	$10,071,000
Depreciation Reserve	$63,000
Sewer Operations Reserve	$89,000

*Projected as of June 30, 2009
Source: City of Albany
Budget for FY 2008/09 and 2009/10

Revenues

As discussed, the Sewer Enterprise's primary source of revenue is service charges. Interest earnings and connection and inspection fees provide nominal additional revenue. Approximately 99 percent of the Enterprise's revenues are collected from sewer service charges, which is the major source of revenue that the City can establish and control.

The City levies a sewer service charge to recover the costs of maintaining, repairing, and replacing its sewer collection lines. The City only direct bills a very small portion of its customers; the balance is collected by Alameda County on the property tax rolls.

Sewer Service Units

Determining sewer service units is essential to predicting the revenues from sewer service charges. The City currently provides sewer collection service to approximately 7,280 sewer service units or equivalent residential units (ERUs). A sewer service unit or ERU is a customer that discharges wastewater flow equivalent to a residential unit. Each residential unit is assigned 1.0 sewer service unit. A customer that discharges twice the flow of an average residential unit would be assigned two sewer service units. The City is a mix of residential, commercial, and institutional customers. About 87 percent of these sewer service units are single or multi-family residential and the remainder are commercial, industrial, or public customers.

Table 2 details the sewer service inventory for the City for fiscal year 2009/10.

Table 2
Wastewater Financial Plan and Rate Review
City of Albany
Summary of Sewer Service Units

User Type	# Parcels	# ERU*
Residential - single family	3,773	3,827
Residential - multi-family	1,410	2,523
Commercial	271	693
Industrial	12	46
School	3	7
Albany Unified School District	-	30
Orientation Center for the Blind	-	8
University Village (by agreement, 2008/09 = $15,908)	-	52
USDA (based on water consumption, 2007/08 = $22,282)	-	73
Church	5	5
Lodgehall & Clubhouse	2	2
Public Agency	163	0
Public Utility	17	0
Vacant Residential Tract Lot	1	0
Other	40	16
Total	5,697	7,282

* ERU = Equivalent Residential Unit
Source: LCC, Inc. and City of Albany

Sewer Service Charge Amount

The sewer service charge has increased annually since 2003/04. This increase has been on the order of 1 percent to 6 percent annually. The current monthly sewer service charge is $25.29 per ERU. Sewer service charges are billed and collected by the County Auditor-Controller's Office on a semiannual basis. Payments are due November 1 and February 1 of the fiscal year in which the service is provided.

Resolution #07-37 approved by Albany City Council on July 2, 2007, increased the sewer service charge by $8 for fiscal years 2007/08 through 2009/10, and continues the Consumer Price Index (CPI) increase until 2017.

Table 3 details the sewer service charge for a sewer service unit over the last eight years.

Table 3
Wastewater Financial Plan and Rate Review
City of Albany
Historical Sewer Service Charges

Fiscal Year	Monthly Rate per ERU	% Increase
2009/10	$25.29	6%
2008/09	23.84	6%
2007/08	22.46	6%
2006/07	21.12	2%
2005/06	20.71	1%
2004/05	20.46	2%
2003/04	20.10	2%
2002/03	19.78	

Source: City of Albany
Sewer System Management Plan
August 2008

The sewer service charge revenue collected from each user type under the current charge is shown in Table 4. Approximately 87 percent of the service charge revenues are collected from residential customers.

Table 4
Wastewater Financial Plan and Rate Review
City of Albany
Summary of Current Surcharge FY 2009/10

User Type	# ERU	Rate/ERU	Annual Revenue
Residential - single family	3,827	$25.29	$1,161,417.96
Residential - multi-family	2,523	25.29	765,528.30
Commercial	693	25.29	210,196.32
Industrial	46	25.29	13,960.08
School	7	25.29	2,160.78
Albany Unified School District	30	25.29	9,004.25
Orientation Center for the Blind	8	25.29	2,418.74
University Village (1)	52	25.29	15,907.98
USDA (2)	73	25.29	22,282.24
Church	5	25.29	1,517.40
Lodgehall & Clubhouse	2	25.29	606.96
Other	16	25.29	4,886.03
Total	7,282		$2,209,887.03

1 - By agreement, based on FY 2008/09 billing
2 - Based on water consumption, based on 2007/08 billing
Source: LCC, Inc. and City of Albany

Connection Fees

Connection or capacity fees are fees paid by new customers connecting to the sewer system. There is not much new development within the City's service area, so this is not a major revenue source. Under California law, new development cannot be charged more than the costs to provide capacity to serve that new development. There are specific provisions of law dealing with accounting for connection fees. They must be held in a separate fund and their use must be reported each year. The City's current connection fee is $1,158 per ERU. This analysis assumes that two ERUs will come onto the system each year.

Expenses

Sewer Enterprise operating and maintenance expenses are budgeted at $1,026,000. The Enterprise also incurs an annual expense for the funding of debt service. The Enterprise refinanced its debt in 2004 with the issuance of refunding revenue bonds. The revenue bonds will be paid off in FY 2023/2024 and the remaining debt service payments from now until then will average approximately $635,000 per year. The debt service schedule is shown in Table 5.

The Sewer Fund transfers to money to the Debt Service Fund to provide payment for sewer bond interest and principal. A Reserve Fund is required and must maintain a balance of (1) maximum amount of principal of and interest on the Bonds coming due and payable in the current of any future Bond Year, (2) 10% of the principal amount of the Bonds, or (3) 125% of average annual debt service on the Bonds.

Table 5
Wastewater Financial Plan and Rate Review
City of Albany
2004 Sewer Revenue Bonds
Debt Service Schedule

Year Ending	Principal	Interest	Total
2005	$320,000	$286,382.31	$606,382.31
2006	325,000	303,202.50	628,202.50
2007	330,000	296,702.50	626,702.50
2008	340,000	290,102.50	630,102.50
2009	350,000	282,622.50	632,622.50
2010	355,000	273,697.50	628,697.50
2011	370,000	263,402.50	633,402.50
2012	380,000	251,747.50	631,747.50
2013	395,000	239,017.50	634,017.50
2014	410,000	225,192.50	635,192.50
2015	425,000	210,432.50	635,432.50
2016	440,000	194,707.50	634,707.50
2017	455,000	177,987.50	632,987.50
2018	475,000	160,242.50	635,242.50
2019	495,000	141,242.50	636,242.50
2020	515,000	120,947.50	635,947.50
2021	540,000	99,317.50	639,317.50
2022	560,000	76,367.50	636,367.50
2023	585,000	52,287.50	637,287.50
2024	610,000	26,840.00	636,840.00
Total	$8,675,000		

Source: City of Albany
2004 Sewer Revenue Bond Official Statement

Revenues and Expenses

The Sewer Enterprise's total budgeted operating revenue for FY 2010 is approximately $2.2 million and the operating expense is $1.0 million. This yields a net operating revenue of $1.2 million. Capital revenues include $30,000 from connection fees, and capital expenses consisting of CIP projects and debt service in the amount of $1.6 million.

Table 6 details actual and budgeted revenues and expenses for 2008/09 and 2009/10.

Table 6
Wastewater Financial Plan and Rate Review
City of Albany
Projection of Operating Revenue and Expenses

	Audit 2008/09	Adopted Budget 2009/10
Revenue		
Sewer service charges	2,036,803	2,040,889
Connection/inspection fees	23,243	30,000
Interest (estimated 2009/10)	107,285	100,000
Total revenue	2,167,331	2,170,889
Expense		
General Fund Expenditures		
Salaries and benefits	499,953	529,785
Services and supplies	242,957	244,730
Other expenditures	251,449	251,449
Subtotal operations expense	994,359	1,025,964
Capital Projects & Debt Service		
CIP Expenditures	2,584,633	945,868
2004 Sewer revenue bond payments	632,623	628,698
Subtotal capital & debt	3,217,256	1,574,566
Total expense	4,211,615	2,600,530
Net annual revenue	($2,044,284)	($429,641)

Source: City of Albany
CAFR Year Ended June 30, 2009
Budget for FY 2008-29 and 2009-10

CAPITAL IMPROVEMENT PROGRAM

The City has developed a rolling five-year capital improvement program (CIP) to comply with requirements from the Regional Board and maintain its collection system. Sewer System Management Plan (SSMP) Resolution #09-36 dated July 6, 2009 was adopted by the Albany City Council to approve the combined SSMP. SSMPs have been required for public sanitary sewer collection systems by the Regional Water Quality Control Board Resolution on July 7, 2005 and by the Statewide General Waste Discharge Requirement

(WDR) for Sanitary Sewer Systems, Order No. 2006-003-DWQ, adopted by the State Water Quality Control Board.

The SSMP was developed and implemented to prevent or significantly reduce Sanitary Sewer Overflows (SSOs) from public sewer systems. The goals of the SSMP are: (1) to properly manage, operate and maintain all parts of the wastewater collection system, (2) to provide adequate capacity to convey peak flows, (3) to minimize the frequency of SSOs, and (4) to mitigate the impact of SSOs.

A major objective of the SSMP is to reduce the potential for SSOs by reducing the amount of infiltration and inflow (I&I) of groundwater/stormwater into the sewer system, which then reaches the EBMUD Trunk Sewers. The City of Albany has been a leader in the San Francisco Bay region, and the entire State of California by adopting an upper lateral compliance program. This program significantly reduces I&I by requiring that homeowners demonstrate that upper laterals are "tight" upon sale of their home or construction of major improvements (improvements in excess of 5 percent of the value of the house). Reduction in I&I reduces the amount of pumping and energy required to process wastewater at EBMUD's pump station and treatment plant during significant rainfall events.

Specific projects within the SSMP include sewer cleaning and television inspection, GIS development, and Fats, Oils, and Grease (FOG) prevention.

In addition to the SSMP, the five-year CIP includes capital expenditures for the Spot Repair and Rehabilitation Program and the Collection System Project. The City's collection system was generally designed with adequate capacity for existing and future developments and does not have a history of capacity-based sewer system overflows (SSOs). The system has been designed to handle peak wet weather flows. The City has already established a process to assess current and future capacity requirements for its collection system facilities. Expenditures for the Spot Repair and Rehabilitation Program and Collection System Project will be used to replace segments of collection mains throughout the system.

An additional commitment to the rehabilitation and replacement of the City's wastewater collection facilities is now being required. This commitment to reducing and eliminating Sanitary Sewer Overflows to the San Francisco Bay has been mandated by the May 2006 Administrative Order (AO) issued to EBMUD, to the City and to the other EBMUD satellites by the Environmental Protection Agency (EPA). The funding that will be required for the accelerated program required under the AO will exceed that which is currently budgeted for in the existing rate structure.

The staff report prepared by Staff in June of 2007 in support of Resolution #07-37 indicated that the purpose of the increase authorized by that Resolution and subsequent Proposition 218 proceeding was intended to fund the proposed pre-emptive and proactive maintenance of the City's sanitary sewer system that had been mandated by the WDR

and the SSMP. The report by the City staff indicated that the increase would not be adequate to cover increased capital improvement program expenditures, should unforeseen deficiencies in the system be discovered or should the regulatory authorities determine that an increased rate of replacement of the City's aging wastewater collection facilities be required.

Table 7 shows the planned expenditures for the CIP over the next ten years, which total over $17.5 million. Given that only $4.5 million is currently available in the reserves, the Sewer Enterprise must develop other revenue sources to fully fund the CIP.

Table 7
Wastewater Financial Plan and Rate Review
City of Albany
Sewer Program Expenses

	Budgeted 2009/10	Planned 2010/11	Planned 2011/12	Planned 2012/13	Projected 2013/14	Projected 2014/15	Projected 2015/16	Projected 2016/17	Projected 2017/18	Projected 2018/19	Projected 2019/20
Operations and Maintenance	1,026,000	1,057,000	1,089,000	1,122,000	1,155,000	1,189,000	1,225,000	1,262,000	1,300,000	1,339,000	1,380,000
2004 Sewer Revenue Bonds Payments	629,000	633,000	632,000	634,000	635,000	635,000	635,000	633,000	635,000	636,000	636,000
Spot Repairs and Rehabilitation (1)	250,000	330,000	375,000	425,000	475,000	500,000	547,000	563,000	580,000	580,000	580,000
SSMP (2)											
Cleaning and television inspection	153,000	158,000	163,000	168,000	173,000	178,000	183,000	188,000	194,000	200,000	206,000
Condition assessment	11,000	11,000	12,000	12,000	12,000	13,000	13,000	14,000	14,000	14,000	15,000
GIS development	11,000	11,000	12,000	12,000	12,000	13,000	13,000	14,000	14,000	14,000	15,000
Capacity assessment	11,000	11,000	12,000	12,000	12,000	13,000	13,000	14,000	14,000	14,000	15,000
FOG prevention	5,000	6,000	6,000	6,000	6,000	6,000	7,000	7,000	7,000	7,000	7,000
Online reporting and misc program costs	5,000	6,000	6,000	6,000	6,000	6,000	7,000	7,000	7,000	7,000	7,000
Total SSMP	196,000	203,000	211,000	216,000	221,000	229,000	236,000	244,000	250,000	256,000	265,000
Collection System Projects											
North of Brighton Easement	500,000										
Masonic Marin to Washington		670,000									
West Side of Albany Hill			840,000								
Solano Ave. Masonic to Ventura				1,000,000							
Future Projects (1)					1,030,000	1,061,000	1,093,000	1,126,000	1,159,000	1,194,000	1,230,000
Total Collection System Projects	500,000	670,000	840,000	1,000,000	1,030,000	1,061,000	1,093,000	1,126,000	1,159,000	1,194,000	1,230,000
Grand Total	$2,601,000	$2,893,000	$3,147,000	$3,397,000	$3,516,000	$3,614,000	$3,736,000	$3,828,000	$3,924,000	$4,005,000	$4,091,000

1 - Allowance after other operating and capital expenses
2 - Escalated at 3% per year from 2007, projected by BWA
Source: City of Albany
Summary of Capital Project Expenditures Fiscal Year 1500000

FINANCING CAPITAL PROJECTS

In addition to funding from reserves, the City has several options for financing its CIP including "pay as you go" funding, issuing debt, or a combination of these options and funding from reserves. Although the City has historically minimized its debt to save on interest costs, borrowing is an appropriate course of action when capital projects have long useful lives. They will benefit customers over many years, and it is equitable for those future customers to help pay for the projects.

The most appropriate debt financing methods for the City's projects are revenue bonds and state revolving fund loans, if available. Initially, the City could use its reserves to plan and design the projects and then finance them at the time of construction. Various options for issuing debt are described in detail in the following sections.

Revenue Bonds and Certificates of Participation (COPs)

The City of Albany is a charter city with the authority to issue revenue bonds according to Chapter 4-6 of the City's Municipal Code. COPs are a form of long-term financing contracts, secured by the City's revenues. A COP for practical purposes is a revenue bond. The City enters into an agreement with a trustee bank under which it purchases a project and agrees to make a stream of payments. The bank then sells shares, or participations, in the City's payments, in increments of $5,000 each. The COPs are underwritten, traded, and sold like any municipal bond issue. The terms are established when the COPs are issued and remain in force while they are outstanding. The City can issue COPs very easily. The process takes three to four months.

Bank Loans

Bank loans, private placements, and leases typically offer slightly higher interest rates than bonds, but also have lower costs of issuance. This generally makes bank loans a cost-effective option for smaller borrowings, historically under $5 million. However, depending on current interest rates, bank loans may be cost-effective for financings upwards of $10 million depending on the underlying credit of the City. Short-term bank loans and lines of credit are sometimes used to provide interim financing that will eventually be taken out with long-term debt. For example, agencies with limited fund reserves may use a line of credit to fund planning and design costs prior to issuing long-term bonds when construction begins. The legal covenants securing loans and lines of credit are generally similar to those of revenue bonds or COPs.

Clean Water State Revolving Fund Loans

The State Water Resources Control Board (SWRCB) adminsters the Clean Water SRF loan program. This program provides below-market rate loans to finance wastewater treatment plant improvements. Priority is given to those projects that address human health hazards and treatment systems that are not meeting their waste discharge requirements.

This program offers a number of advantages over other lending options. Primary among them is the very low interest rate, historically averaging 2.5%, and the maximum issuance amount of $50

million per year. Another advantage is that no payments on the loan are due until 12 months afterthe project has been in service. This allows the City as many as four years (from the start of design and construction) to slowly build sewer service charges to the appropriate levels to meet future repayment of the loan. During that time, connection fees can be saved expressly for the purposes of meeting debt service in the future. Additionally, the SWRCB does not require the same level of security for repayment of the loan as a market rate security would. There is no reserve fund requirement, and although the City must pledge to repay the loan on time, and to maintain revenues sufficient to do so, there is some level of flexibility in using impact fees to repay a portion of the debt. The process to secure an SRF loan often requires a year or more.

CASH FLOW PROJECTION

Using the assumptions detailed in the previous sections a cash flow has been developed. Increased sewer service charges are needed to meet operating costs and increased capital costs associated with the SSMP. These increases will also maintain the target reserve levels mentioned in the previous sections.

Connection fee revenues and interest earnings have been included in the cash flow. Table 8 shows the cash flow projection over the next ten years.

Table 8
Wastewater Financial Plan and Rate Review
City of Albany
Projection of Revenue and Expenses

	Adopted Budget 2009/10	Projected 2010/11	Projected 2011/12	Projected 2012/13	Projected 2013/14	Projected 2014/15	Projected 2015/16	Projected 2016/17	Projected 2017/18	Projected 2018/19	Projected 2019/20
Number of ERUs	7,280	7,284	7,288	7,292	7,296	7,300	7,304	7,308	7,312	7,316	7,320
Increase - amount ($/mo)		2.96	3.00	3.00	3.00	3.00	1.75	1.00	1.00	1.00	1.00
Sewer Service Charge (monthly/ERU)	$25.29	28.25	31.25	34.25	37.25	40.25	42.00	43.00	44.00	45.00	46.00
Increase - %		11.7%	10.6%	9.6%	8.8%	8.1%	4.3%	2.4%	2.3%	2.3%	2.2%
Available Beginning Fund Balance (1)	4,518,000	4,256,000	3,909,000	3,568,000	3,237,000	3,048,000	3,024,000	3,032,000	3,038,000	3,038,000	3,047,000
Revenue											
Sewer service charges	2,209,000	2,469,000	2,733,000	2,997,000	3,261,000	3,526,000	3,681,000	3,771,000	3,861,000	3,951,000	4,041,000
Interest @1.1%	100,000	47,000	43,000	39,000	36,000	34,000	33,000	33,000	33,000	33,000	34,000
Connection/inspection fees	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Total revenue	2,339,000	2,546,000	2,806,000	3,066,000	3,327,000	3,590,000	3,744,000	3,834,000	3,924,000	4,014,000	4,105,000
Expenses (2)											
General Fund Expenditures											
Salaries and benefits	530,000	546,000	562,000	579,000	596,000	614,000	632,000	651,000	671,000	691,000	712,000
Services and supplies	245,000	252,000	260,000	268,000	276,000	284,000	293,000	302,000	311,000	320,000	330,000
Other expenditures	251,000	259,000	267,000	275,000	283,000	291,000	300,000	309,000	318,000	328,000	338,000
Spot repairs and rehabilitation	250,000	330,000	375,000	425,000	475,000	500,000	547,000	563,000	580,000	580,000	580,000
2004 Sewer revenue bonds payments	629,000	633,000	632,000	634,000	635,000	635,000	635,000	633,000	635,000	636,000	636,000
Subtotal expenses	1,905,000	2,020,000	2,096,000	2,181,000	2,265,000	2,324,000	2,407,000	2,458,000	2,515,000	2,555,000	2,596,000
Capital Projects											
SSMP	196,000	203,000	211,000	216,000	221,000	229,000	236,000	244,000	250,000	256,000	265,000
Collection system projects	500,000	670,000	840,000	1,000,000	1,030,000	1,061,000	1,093,000	1,126,000	1,159,000	1,194,000	1,230,000
Total capital and debt	696,000	873,000	1,051,000	1,216,000	1,251,000	1,290,000	1,329,000	1,370,000	1,409,000	1,450,000	1,495,000
Total Annual Expenditures	2,601,000	2,893,000	3,147,000	3,397,000	3,516,000	3,614,000	3,736,000	3,828,000	3,924,000	4,005,000	4,091,000
Net Annual Revenue	(262,000)	(347,000)	(341,000)	(331,000)	(189,000)	(24,000)	8,000	6,000	0	9,000	14,000
Ending Fund Balance	4,256,000	3,909,000	3,568,000	3,237,000	3,048,000	3,024,000	3,032,000	3,038,000	3,038,000	3,047,000	3,061,000
Fund Target Minimum Balance (3)		2,712,000	2,758,000	2,809,000	2,859,000	2,894,000	2,944,000	2,975,000	3,009,000	3,033,000	3,058,000

1 - Operating cash and investments less current liabilities and revenue bond reserve. From CAFR June 30, 2009
2 - Most expenses escalated 3% annually
3 - Based on 60% of non-capital expenses plus $1.5 million minimum capital reserve
Source: Prepared by Bartle Wells Associates from information provided by the City

SERVICE CHARGE AND CONNECTION CHARGE RECOMMENDATIONS

Given the Enterprise's operational and capital funding needs, Bartle Wells Associates has made recommendations for sewer service charge and connection fee adjustments and long-term financing of the CIP.

Sewer Service Charges

As shown in Table 8, the sewer service charges must increase to fund ongoing annual costs as well as the CIP. A summary of the recommended rate increases over the next five years is shown in Table 9.

Table 9
Wastewater Financial Plan and Rate Review
City of Albany
Projected Monthly Sewer Service Charge

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Sewer Service Charge (monthly/ERU)	25.29	28.25	31.25	34.25	37.25	40.25
Increase - %		11.7%	10.6%	9.6%	8.8%	8.1%

Source: Prepared by Bartle Wells Associates

Table 10 and Figure 2 show the rate comparison of the City of Albany's current rates with the other EBMUD satellite sanitation agencies. Although the City's rates appear to be on the high end compared to the other agencies, it should be noted that some of these agencies have not raised their rates in several years or are currently undergoing rate studies.

Table 10

Rate Comparison to Other EBMUD Satellite Sanitation Agencies

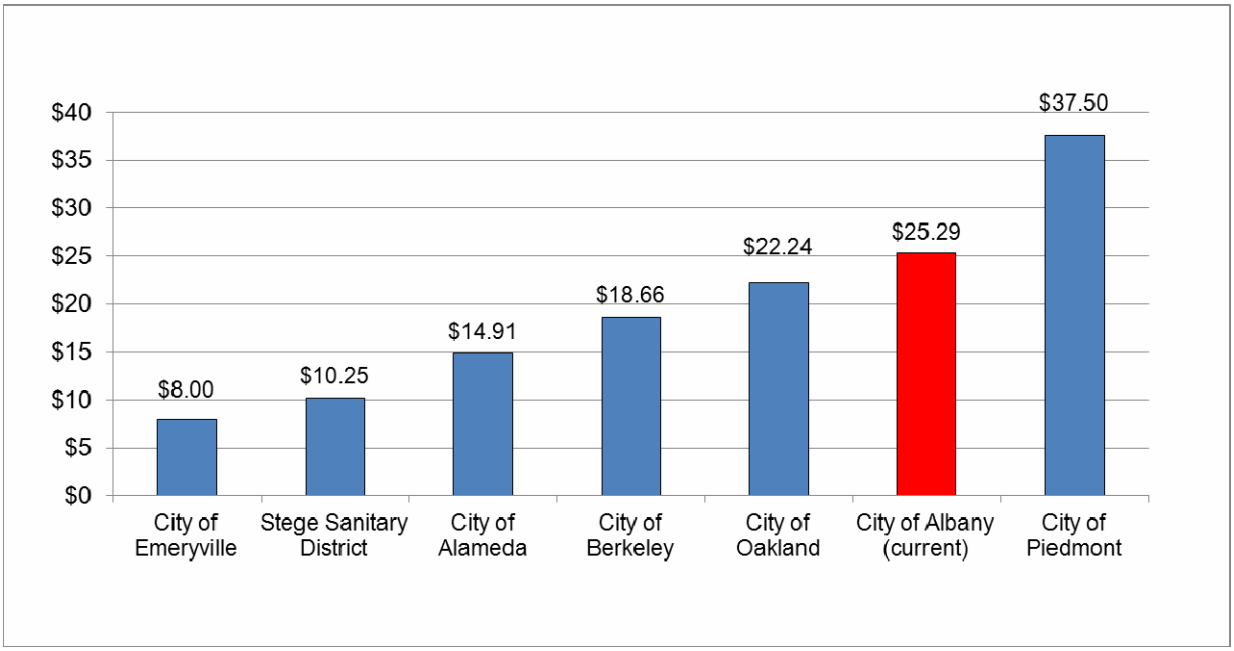
Agency	Monthly Service Charge (Single-Family Residential)*
City of Emeryville (1)	$8.00
Stege Sanitary District (2)	10.25
City of Alameda	14.91
City of Berkeley (3)	18.66
City of Oakland (3)	22.24
City of Albany	25.29
City of Piedmont (4)	37.50

* Current monthly service charge for FY2009/10 unless otherwise noted

1 - The City of Emeryville has not raised its sewer service charges since 1997
2 - Stege Sanitary District is currently performing a rate study and anticipates raising its rates for FY 2011 and beyond
3 - The service charge is based upon an estimated residential wastewater flow of 4,350 gallons per month

4 - The service charge is a flat rate for lots sized 5,000 sq ft to 10,000 sq ft

Figure 2 – Monthly Service Charges of EBMUD Satellite Sanitation Agencies



Connection Charge

The City's current connection charge is a $1,158 per residence. New commercial and industrial connections pay a charge of $180.95 per plumbing fixture plus a fee of $6.95 per gallon of grease trap capacity (for restaurants). The minimum connection charge for commercial or industrial customers is $1,200.

Revenues from connection charges must be placed in the capital expansion fund. Revenues from the inspection charge may be placed in either the general fund or the capital fund. No change is recommended for the inspection charge.

Adjusting Connection Charges

Connection charges should be adjusted regularly to prevent them from falling behind the costs of constructing new facilities. Several methods can be used to adjust the capacity charges, including:

- ENR Construction Cost Index: ENR (Engineering News-Record) magazine publishes construction cost indices monthly for 20 major U.S. cities and an average of 20 cities around the U.S. These indices can be used to estimate the change in the construction cost of facilities.
- U.S., California, or regional consumer price index.
- Interest rate and borrowing costs: The interest and borrowing costs for debt issued to finance water capital projects can be added to the connection fee annually.

Bartle Wells Associates recommend that City adjust its capacity charges annually by the change in the ENR Construction Cost Index for San Francisco. This is the most appropriate index because it directly reflects construction costs. Suggested language for implementing this policy is:

> Each year, commencing on (m/d/y) and continuing thereafter on each (m/d) , the connection fee shall be adjusted by an increment based on the change in the Engineering News-Record Construction Cost Index for San Francisco from the base index.
>
> However, the City Council may at its option determine, by resolution adopted prior thereto, that such adjustment shall not be effective for the next succeeding year, or may determine other amounts as appropriate.