FY 2014-15

Capital Improvement BUDGET & TEN-YEAR PLAN

Central Contra Costa Sanitary District

CAPITAL IMPROVEMENT BUDGET

TABLE OF CONTENTS

List of Tables

CAPITAL IMPROVEMENT BUDGET

Acronyms and Abbreviations in the CIB/CIP

AB	Assembly Bill
ADA	Americans with Disabilities Act
ADWF	Average Dry Weather Flow
AFY	Acre-feet per Year
A/N	Aeration and Nitrification
ARB	Air Resources Board
ArcSNAP	Sewer Network Analysis Program
ASB	Auxiliary Steam Boiler
AWWF	Average Wet Weather Flow
B&G	Buildings and Grounds
BAAQMD	Bay Area Air Quality Management District
CAA	Clean Air Act
CAD	Contractual Assessment District
CAFR	Comprehensive Annual Financial Report
CalOSHA	California Occupational Health and Safety Administration
CARB	California Air Resources Board
CBC	California Building Code
CCCERA	Contra Costa County Employees Retirement Association
CCCSD	Central Contra Costa Sanitary District
CCTV	Closed Circuit TV
CCWD	Contra Costa Water District
CEC	California Energy Commission
CECs	Constituents of Emerging Concern
CIB	Capital Improvement Budget
CIP	Capital Improvement Plan – covers ten years
CIPP	Cured in Place Pipe
CNWS	Concord Naval Weapons Station
Co-Gen	Cogeneration
CO2	Carbon Dioxide
COP	Certificates of Participation
CS	Collection System
CSO	Collection System Operations
CSOD	Collection System Operations Division
DAF	Dissolved Air Flotation (tanks)
DI	De-Ionized or Discrete Input
District	Central Contra Costa Sanitary District
DP	District Project
DTSC	Department of Toxic Substances
DWR	Department of Water Resources
EIR	Environmental Impact Report
Elec	Electrical
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
FCD	Contra Costa County Flood Control and Water Conservation District

CAPITAL IMPROVEMENT BUDGET

Acronyms and Abbreviations in the CIB/CIP

Fund	Sewer Construction Fund
FY	Fiscal Year – July 1 through June 30
GDI	Geographic Data Integration
GHG	Greenhouse Gas
GI	General Improvements Program
GIS	Geographic Information Systems
GPS	Global Positioning System
HOB	Headquarters Office Building
HTE	SunGard Program
HVAC	Heating, Ventilating, and Air Conditioning
IEEE	Institute of Electrical and Electronics Engineers
IFCO	Industrial Furnace Company
I/O	Input and Output
IT	Information Technology
LT	Long Term
M1	Manhole 1
MCC	Motor Control Center
MGD	Million Gallons per Day
MHF	Multiple Hearth Furnace
NACWA	National Association of Clean Water Agencies (formerly AMSA)
NPDES	National Pollutant Discharge Elimination System
NFPA	National Fire Protection Agency
O&M	Operations & Maintenance
PE	Primary Effluent
PLC	Programmable Logic Controller
PG&E	Pacific Gas & Electric Company
Ph	Phase
POB	Plant Operations Building
POD	Plant Operation Division
PPE	Personal Protective Equipment
PS	Pumping Station
PTW	Power Tools for Windows (software program)
RFP	Request for Proposal
RWQCB	Regional Water Quality Control Board
RUE	Residential Unit Equivalent
RW or ReW	Recycled Water
SCADA	Supervisory Control and Data Acquisition
SCB	Solids Conditioning Building
SCF	Sewer Construction Fund
SSC	Sewer Service Charge
SSMP	Sewer System Master Plan
SSO	Sanitary Sewer Overflow
TP	Treatment Plant
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
v	volt

CAPITAL IMPROVEMENT BUDGET

SUMMARY

Central Contra Costa Sanitary District's Capital Improvement Budget (CIB) shows planned expenditures of $25,079,000 for Fiscal Year (FY) 2014-15 from the Sewer Construction Fund for planning, design, and construction of capital projects in four CIB programs. The total proposed funding authorization required for projects in the CIB for FY 2014-15 is $50,501,017, including new allocations and estimated carry-over from FY 2013-14.

The capital program is designed to meet the following goals:

- Protect public health and the environment,
- Maintain existing assets,
- Respond to regulatory and community concerns,
- Accommodate planned future growth.

By adopting the CIB, the Board of Directors authorizes staff to pursue work on specifically identified projects in the Treatment Plant, Collection System, General Improvements, and Recycled Water Programs.

MAJOR PROJECT EMPHASIS

Although the CIB is made up of funding estimates for many individual projects, each year there are several major projects which together account for a majority of total estimated capital expenditures. In FY 2014-15, the emphasis will be on 12 large projects, which together account for $18,994,000 or 76% of the total estimated expenditures. Estimated FY 2014-15 expenditures for each of these projects are noted below.

Primary Treatment Renovation
FY 2014-15: $6,000,000 Estimated total project cost: $14,483,700
This project will renovate or replace the water and air supply pipelines at the primary sedimentation tanks. The grit handling facility will be renovated, and the scum collection system will be renovated with new scum sprays, new helical scum skimmers and drives, and stainless steel scum hoppers for Tanks 1 and 2. The scum thickening unit in the Solids Conditioning Building will also be replaced. Other primary tank improvements include installation of new baffles, replacing chain drives, sludge flight drive shafts and bearings, concrete repairs, upgrading hand railings, constructing a new level control structure, and the odor control system will be evaluated and modified as necessary. Refurbishment of Primary Effluent (PE) Pump 1 and PE Pump 2 are included in the project.

North Orinda Sewer Renovations – Phase 5
FY 2014-15: $2,675,000 Estimated total project cost: $3,422,700
This project will replace or rehabilitate approximately 8,000 feet of six-, eight-, and twelve-inch lines in North Orinda.

Walnut Creek Sewer Renovations – Phase 10
FY 2014-15: $2,700,000 Estimated total project cost: $3,373,700
This project will replace/rehabilitate approximately 8,500 feet of six- and eight-inch sewers in the Walnut Creek area.

Martinez Sewer Renovations – Phase 4
FY 2014-15: $1,700,000 Estimated total project cost: $2,276,400
This project will replace or rehabilitate approximately 6,000 to 8,000 feet of six- and eight-inch sewer pipe located in Martinez.

Information Technology Development
FY 2014-15: $1,000,000 Estimated total project cost: $5,500,000
This project provides funding for the District's computer and telecommunication technology needs.

Centrifuge and Cake Pump Upgrades
FY 2014-15: $800,000 Estimated total project cost: $4,800,000
This project will improve solids capture and reliability of the sludge dewatering equipment using information gathered under the Solids Handling Evaluation project. Additional, related work will be included in this project.

CIPP Lining
FY 2014-15: $800,000 Estimated total project cost: $3,800,000
This project will renovate approximately 3,000 feet of M1, a 42" diameter reinforced concrete pipeline located on the treatment plant site. Approximately 400 feet of the M6 force main may also be lined under this project.

Pleasant Hill – Grayson Creek Trunk
FY 2014-15: $800,000 Estimated total project cost: $6,481,000
The recommended project involves installing approximately 12,000 feet of 15-, 18-, and 24-inch relief sewers and diverting the sewage away from the capacity deficient sewers.

Asset Management Program Development
FY 2014-15: $700,000 Estimated total project cost: $3,540,000
The District is working to develop a comprehensive asset management program that will include treatment plant, collection system, general improvements, and recycled water assets, and which will help manage the lifecycle cost of owning, operating, and maintaining these assets while continuing to meet the District's mission with a tolerable level of risk. The first phase of this project will engage a consultant to assist with an asset management policy, gap analysis, and development of a five-year implementation plan. The implementation plan, once developed, will be included in future CIBs.

Development Sewerage
FY 2014-15: $700,000 **Estimated total project cost: $3,481,000**
This project provides for appropriate capitalization of District force account labor and other expenses for planning, design, and construction of developer-installed and contributed main sewer facilities.

Vehicle & Equipment Acquisition
FY 2014-15: $619,000 **Estimated total project cost: $619,000**
This project provides funding and capitalization of the District's annual purchase of vehicles and major equipment.

DAF Tank Renovation
FY 2014-15: $500,000 **Estimated total project cost: $547,500**
This project will improve the reliability of the sludge thickening process by performing structural and coating rehabilitation to the dissolved air flotation (DAF) tanks. The DAF tanks will also receive electrical, control and lighting upgrades to treatment plant standards.

CAPITAL IMPROVEMENT BUDGET SYSTEM

The CIB includes detailed information for projects in the first year of the Ten-year Capital Improvement Plan (CIP). Board authorizations are made to add funds to the four programs prior to the start of the fiscal year.

Under the CIB system, budgets are authorized for project work within the four budget programs. Budgets are established by program since precise costs for individual projects are difficult to estimate when CIB preparation often precedes project initiation by a year or more. Projections of costs for broader categories of project work can more reliably be made during budget preparation since positive and negative variations in project estimates are expected to balance in a program summation.

The program contingency accounts can be used to fund new projects which are identified after the CIB is approved, and to cover project budget overruns within specified limits. Program authorizations are expected to exceed annual expenditures during any particular budget year since larger planning studies, engineering designs, and construction contracts typically span more than one fiscal year and the budgets are authorized in full at the beginning of each phase of the projects.

As shown in Table 1, by adopting the FY 2014-15 Capital Improvement Budget (CIB), the Board authorizes allocations from the Sewer Construction Fund for planning, design, and construction of capital projects in the four programs. Approximately $23.8 million is estimated to be carried over from previous Board-authorized-but-unspent project budgets in FY 2013-14 and $26.7 million is the total required new Board authorization for projects and project phases beginning in FY 2014-15.

The total Board authorization for projects that are active in the CIB in FY 2014-15 is the sum of these two numbers, or $50.5 million. The estimated FY 2014-15 expenditure total is $25.1 million, leaving an estimated $25.4 million in authorizations for projects that carry into future years. These figures will be adjusted when actual FY 2013-14 expenditures are known and actual FY 2013-14 carryover can be determined. At that time, the Board will be informed of the corrected figures for the four programs in the CIB.

Capital Project Contingency Spending

Two types of contingency funding of capital projects are provided for: project contingency and program contingency. Table 4 identifies staff authority to approve funds for project budget overruns. The General Manager has authority to spend 15% up to a maximum of $1 million per project over the final project budget, limited by the remaining balance of the applicable program account. Any project budget overruns greater than 15% with a maximum of $1 million require Board approval.

The program contingency fund is 5% of the total Estimated Allocation (new allocations) amount approved by the Board when the Capital Budget is adopted. This amount is set aside in a separate account and is allocated to new projects that are not in the CIB. A maximum of $100,000 can be allocated by the General Manager to a project not in the CIB. The remaining 95% is placed in an account from which allocations are made for projects included in the CIB.

Table 1: Capital Improvement Budget Summary for Fiscal Year 2014-15

Program	95% of Estimated Allocation for Projects in the CIB	5% Program Contingency for projects not in the CIB	Estimated Allocation this FY (All Projects)	Estimated Carry-over from Previous FY	Total Proposed Authorization	Estimated FY 2014-15 Expenditures
Treatment Plant	$ 4,261,700	$ 224,300	$ 4,486,000	$11,498,454	$15,984,454	$ 9,045,000
Collection System	$17,232,000	$ 907,000	$18,139,000	$ 8,191,317	$26,330,317	$12,217,000
General Improvements	$ 3,302,675	$ 173,825	$ 3,476,500	$ 3,328,016	$ 6,804,516	$ 3,265,000
Recycled Water	$ 541,025	$ 28,475	$ 569,500	$ 812,230	$ 1,381,730	$ 552,000
Total this Fiscal Year	**$25,337,400**	**$1,333,600**	**$26,671,000**	**$23,830,017**	**$50,501,017**	**$25,079,000**

Table 2: Capital Improvement Budget Summary by Program and Subprogram

Program	Estimated Allocation this FY	Estimated Carry-over from Prior FY	Total Proposed Authorization	Estimated FY 2014-15 Expenditures	% of Total FY 2014-15 Expenditures
Treatment Plant					
Regulatory Compliance/Planning/Safety	$ 1,002,000			$ 732,000	2.9
One-Time Renovation	3,160,000			7,957,000	31.8
Recurring Renovation	324,000			356,000	1.4
Expansion	0			0	0
Program Subtotal	$ 4,486,000	$11,498,454	$15,984,454	$ 9,045,000	36.1
Collection System					
Renovation	10,676.000			9,466,000	37.7
Regulatory Compliance/Planning/Safety	462,000			600,000	2.4
Expansion	6,551,000			1,701,000	6.8
Pumping Stations	450,000			450,000	1.8
Program Subtotal	$18,139,000	$ 8,191,317	$26,330,317	$12,217,000	48.7
General Improvements					
Vehicles & Equipment	623,500			620,000	2.5
Management Information Systems	1,300,000			1,450,000	5.8
Projects	463,000			495,000	1.9
Asset Management Plan	1,090,000			700,000	2.8
Program Subtotal	$ 3,476,500	$ 3,328,016	$ 6,804,516	$ 3,265,000	13.0
Recycled Water					
Urban Landscaping	569,500			552,000	2.2
Program Subtotal	$ 569,500	$ 812,230	$ 1,381,730	$ 552,000	2.2
Total FY 2014-15 Budget	$26,671,000	$23,830,017	$50,501,017	$25,079,000	100.0

SEWER CONSTRUCTION FUND REVENUES AND EXPENDITURES

The Sewer Construction Fund acts as the bank to finance the Capital Program. In order to ensure that adequate funds are available, each year the expected revenues are reviewed and compared with planned expenditures and a determination made as to whether additional revenues are needed.

The sources of capital revenue are described in detail in the Capital Improvement Plan portion of this document. They fall into four major categories.

First are capacity and pumped zone fees which are charged to new users when they connect to the sewer system. These fees are based on a calculation of the cost to buy in to the current value of existing District assets. The amount of these fees collected each year varies significantly depending on the health of the housing industry and the number of new homes constructed.

Second is interest earned on the Sewer Construction Fund balance, which varies depending on the economy and the amount of money in the Fund.

Third are reimbursements from others, which consist primarily of reimbursements from the City of Concord, served by the District under contract.

The fourth major source of revenue is sewer service charges (SSC). SSC are the one revenue source that is completely within the discretion of the District Board of Directors. Therefore, each year staff evaluates the District's finances and recommends a SSC rate it determines to be prudent to sustain the Capital Improvement Program without the need for large SSC rate increases or substantial debt financing in the future. If an increase in the SSC rate is proposed, the Board of Directors conducts a public hearing, and considers all available information in coming to a final decision on setting the SSC rate.

Two years ago, the Board of Directors approved an increase in the SSC rate by $34 per Residential Unit Equivalent (RUE) for each of the last two years to fund needed capital improvements while avoiding significant debt financing. The $34 per RUE SSC increase is reflected in Table 3: Sewer Construction Fund Revenues and Expenditures on the following page. A public hearing was held on April 17, 2014, after which the Board confirmed the $34 per RUE SSC increase. With the rate increase, staff projects that expenditures will exceed revenue by approximately $2.8 million, which would require drawing from funds available in the Sewer Construction Fund.

Table 3: SEWER CONSTRUCTION FUND REVENUES AND EXPENDITURES

A summary of projected FY 2014-15 Capital Improvement Program revenue and expenditures is presented below:

		Includes $34 SSC Rate Increase
Revenues		
	Facilities Capacity Fees	$ 5,890,000
	Pumped Zone Fees	528,000
	Interest	280,000
	Ad Valorem Taxes	8,160,000
	Sewer Service Charges	3,784,000
	Reimbursements from Others:	
	City of Concord	3,305,000
	Recycled Water Sales	260,000
	Developer Fees, Charges, Other	74,000
	Total Revenues *	$ 22,281,000
Expenditures		
	Treatment Plant Program	$ 8,974,000
	Collection System Program	12,317,000
	General Improvements Program	3,136,000
	Recycled Water Program	652,000
	Total Expenditures	$ 25,079,000

A summary of Sewer Construction Funds Available Impact is Presented Below:

Projected Revenues	$ 22,281,000
Projected Expenditures	(25,079,000)
Draw From Funds Available	$ (2,798,000)

More specific information regarding expenditure categories is included in the Capital Improvement Plan.

* Revenue is first recorded in the O&M budget until O&M costs are offset. Any additional revenue will be recorded in the Sewer Construction Fund.

AUTHORIZATION LIMITS

Under the established CIB system, the District Board of Directors and staff have well-defined authority limits. The Board of Directors authorizes funds for the four CIB programs (Treatment Plant, Collection System, General Improvements, and Recycled Water) from the Sewer Construction Fund at the beginning of each fiscal year. The Capital Improvement Program Authorization Limits are detailed in Table 4, which follows.

Once the CIB is approved by the Board, the General Manager has the authority to allocate funds to the individual projects contained in the CIB up to the total program budget. If a project is not included in the CIB, the General Manager can allocate contingency funds up to $100,000. If an individual equipment item is not included in the CIB, the General Manager can allocate funds up to $50,000 per item. The General Manager can allocate funds from program accounts to cover project budget overruns, up to 15% of the final project budget established at the time of the construction contract award, with a maximum of $1,000,000 per project. Finally, the General Manager may award construction contracts less than $100,000 and authorize consultant agreements less than $100,000.

The Board of Directors also has an ongoing role after it approves the CIB and the CIP. Specific Board approval is required for award of construction contracts over $100,000, for consultant agreements over $100,000 and for project overruns in excess of 15% of the final project budget or over $1,000,000 per project. In addition, any allocation to a new project not included in the CIB that exceeds $100,000 must be authorized by the Board.

Table 4: Capital Improvement Program Authorization Limits

Action		General Manager	Board of Directors
Approve Capital Plan		None	No limit
Authorize Capital Program budgets		None	No limit
Allocate funds to individual project budgets		Total program budget plus contingency[1]	No Board authorization required
Authorize Consultant Contracts	Professional Consulting Services	$100,000 or less	Greater than $100,000
	Technical Consulting Services.	$100,000 or less	Greater than $100,000
	Professional Eng. Services.	$100,000 or less	Greater than $100,000
Allocate funds from program contingency accounts to projects not included in the CIB		$100,000 or less per project[2]	Greater than $100,000
Individual equipment items and equipment contingency in the Equipment Budget		Up to amount specified in Equipment Budget including contingency	Above amount specified in Equipment Budget including contingency
Individual equipment items not in the Equipment Budget		$50,000 or less	Greater than $50,000
Authorize supplemental funds to program budgets/ contingency accounts		Not applicable	Sewer Construction Fund balance
Allocate funds for project budget overruns after award of construction contract		15% of final project budget[1,2,3] or up to a maximum of $1,000,000 per project, whichever is less	Greater than 15% of final project budget[3] or above $1,000,000 per project
Award construction contracts[4]		$100,000 or less	Greater than $100,000
Authorize construction change orders	Additive	$100,000 or less	Greater than $100,000
	Deductive	No limit	No Board authorization required
Subcontractor substitutions		All substitutions unless protested by subcontractor	Substitutions protested by subcontractor
Construction project acceptance		All projects	Informational announcement to the Board
Close out project		All projects	Memo provided to the Board at end of FY

[1] Limited by the remaining balances of the applicable program and contingency account
[2] Limited by the remaining balance of the applicable program contingency account
[3] Final project budget is established at time of award of construction contract
[4] Bid protests and rejection of all bids must go to Board regardless of dollar amount

TREATMENT PLANT PROGRAM

TABLE OF CONTENTS

TREATMENT PLANT PROGRAM

TABLE OF CONTENTS

(Continued)

Page No.

Recurring Renovation (Tab 3)

TREATMENT PLANT PROGRAM

This section includes detailed information for the Treatment Plant Program. Table TP-1 presents project listings and budget information. Detailed project information, schedules, and cash flow tables are presented in individual project sheets.

OVERVIEW

The Treatment Plant Program continues with asset preservation, future regulatory compliance, major renovation and one-time improvements, and seismic strengthening.

Regulatory Compliance/Planning/Safety (Tab 1)

This subprogram includes projects that emphasize preparing for future regulations and treatment plant planning, which includes pilot testing various new technologies. Work will be done to investigate new furnace permitting requirements and install incinerator emissions improvements. A plan will be developed in conjunction with Department of Toxic Substances Control (DTSC) to address the issue of contaminated soil at the plant site. A long term project to identify and remove any hazardous materials at the Treatment Plant will continue. In addition further investigations will be conducted on ammonia toxicity and evaluation of appropriate treatment to remove it. Safety and security improvements will continue, and work on the Plant of the Future plan will be done, although this project is not in the CIB for 2014-15 and will require a supplemental authorization.

One-Time Renovation (Tab 2)

This subprogram includes three high expenditure projects. The largest project is the Primary Treatment Renovation Project, a two-year effort that will renovate the primary facilities. The second project, Centrifuge and Cake Pump Upgrades, will improve solids capture and reliability of the sludge dewatering equipment. The third large project, Seismic Upgrades for the pump and Blower Building, will retrofit the Pump and Blower Building to current design standards.

Recurring Renovation (Tab 3)

Projects in this subprogram are targeted at asset preservation. The main project in this program is the Piping Renovations and Replacement, Phase 8. Other projects include Plant Energy Optimization, Urgent Repairs, Laboratory Repairs and Upgrades, Concrete Renovation, and Plant Electrical and Instrumentation.

Expansion (Tab 4)

There are no projects in the Expansion program in FY 2014-15.

Table TP-1: Treatment Plant Subprogram/Project List

Subprogram / Project No. / Project Title			Estimated Total Project Expenditures	Estimated Expenditures To 6/30/2014	Anticipated Allocations FY 2014-15	Estimated Expenditures FY 2014-15
1	Reg. Compliance/Planning/Safety					
	7312	Ash Facility Improvements	41,000	10,000	0	1,000
	pTP47	Walnut Cr / Grayson Cr Levee Rehab	620,000	0	20,000	10,000
	pTP31	Permitting Study for New Furnace	26,000	0	21,000	1,000
	pTP33	Treatment Plant Soil Remediation	152,000	50,000	0	1,000
	7284	TP Hazard Identification & Remediation	753,600	197,600	100,000	6,000
	7315	Plant of the Future Roadmap	450,000	0	250,000	100,000
	7301	Treatment Plant Planning	4,084,500	1,913,500	371,000	371,000
	7311	TP Safety Enhancements - Phase 4	340,000	100,000	240,000	240,000
	pTP08	TP Safety Improvements Program	41,000	15,000	0	1,000
	pTP23	TP Security Upgrade	82,000	11,000	0	1,000
		Subprogram Total	6,864,000	2,696,000	1,002,000	732,000
2	One-Time Renovation					
	7286	Centrifuge & Cake Pump Upgrades	4,800,000	0	2,000,000	800,000
	7308	Co-Gen Controls Upgrade	1,300,000	1,240,000	0	60,000
	pTP03	Plant Cyber Security	70,000	60,000	0	5,000
	7309	DAF Tanks Renovation	690,000	90,000	600,000	500,000
	pTP42	Plant Control System I/O Replacement	4,000,000	0	30,000	10,000
	pTP41	Plant Control System Network Upgrades	320,000	0	80,000	80,000
	7304	PLC System Upgrades	758,700	118,700	80,000	80,000
	7285	Primary Treatment Renovation	14,383,700	6,923,700	0	6,000,000
	7291	Pump & Blower Bldg Seismic Upgrades	3,836,300	436,300	150,000	122,000
	7292	Switchgear Refurbishment - Phase 2	1,336,800	306,800	120,000	100,000
	7297	Wet and Dry Scrubber Replacement	7,871,100	51,100	100,000	100,000
		Subprogram Total	44,452,300	9,468,300	3,160,000	7,957,000
3	Recurring Renovation					
	pTP45	Electrical Cable Replacement	2,370,000	0	10,000	10,000
	none	TP Facilities Renovations Program	2,890,000	50,000	50,000	50,000
	pTP16	Coating Renovation	5,402,000	1,000	0	1,000
	pTP30	Concrete Renovation	656,000	5,000	1,000	1,000
	pTP32	Plant Energy Optimization	90,000	75,000	0	15,000
	pTP24	Laboratory Upgrades and Repair	438,000	0	48,000	48,000
	pTP29	Pavement Renovation	256,000	5,000	5,000	1,000
	7310	Piping Renovations - Phase 8	1,750,000	100,000	150,000	150,000
	7254	Cathodic Protection Systems Replacement	571,300	551,300	0	10,000
	pTP06	Electrical and Instrumentation Replacement	100,000	10,000	0	10,000
	7265	TP Equipment Replacement	1,268,100	1,068,100	50,000	50,000
	7314	Urgent Repairs Blanket Contract	50,000	10,000	10,000	10,000
		Subprogram Total	15,841,400	1,875,400	324,000	356,000
		Program Total	67,157,700	14,039,700	4,486,000	9,045,000

Ash Facility Improvements

Project Manager, Department/Division:
Edgar Lopez, Engineering/Capital Projects

Project Purpose:
This project will improve ash containment within the Solids Conditioning Building (SCB).

Project History:

The ash system collects the ash at the bottom of the furnaces and conveys it to storage bins located on the third floor northwest corner of the SCB. A vacuum method is used to transmit the ash through the SCB where it is collected by filters and storage cyclones prior to disposal. The filter and storage location is not isolated from other processes within the SCB, so ash spreads through the building, resulting in expensive and difficult housecleaning.

Project Description:
This project will make improvements to limit the amount of ash dispersed within the SCB and contain the storage area.

Project Location:
Solids Conditioning Building

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$41,000
Design	-	-	$0
Construction	09/18/2013	06/30/2018	$0
		Total:	**$41,000**

Estimated expenditures this FY are: **$1,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Ash Facility Improvements / 1
Project Number/Filename: 7312 / ash_facility
Project Manager/% Expansion: Lopez / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	1,000	0	10,000	0	0
B. Anticipated Allocations	11,000	0	20,000	0	10,000	0
C. Authorized this Year	11,000	1,000	20,000	10,000	10,000	0
D. Estimated Expenditures	(10,000)	(1,000)	(10,000)	(10,000)	(10,000)	0
E. Estimated Carry-over	1,000	0	10,000	0	0	0

Walnut Creek/Grayson Creek Levee Rehabilitation

Project Manager, Department/Division:
Dan Frost, Engineering/ Environmental Services

Project Purpose:
The goal of this project is for the Contra Costa County Flood Control and Water Conservation District (FCD) to reduce the risk of flood damage to the treatment plant.

Project History:
The treatment plant site is bordered by Walnut and Grayson Creeks. The FCD and the US Army Corps of Engineers (USACE) built levees along these two creeks to control flooding in the region. The FCD owns and maintains the levees.

Based on recent modeling, the levees currently only provide protection from a 30-year storm. The current flood protection standard is to provide protection against the 200-year water surface and to consider the potential for sea level rise and climate change.

Project Description:
The FCD is pursuing grant funding for 50% of the total project costs. The FCD and the District have agreed to partner on this project and share the remaining costs. The FCD will be the lead agency on this project and the District will provide support as needed for design review and construction coordination.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2014	01/01/2015	$10,000
Design	01/01/2015	06/30/2015	$10,000
Construction	07/01/2015	12/31/2018	$600,000
		Total:	**$620,000**

Estimated expenditures this FY are: **$10,000**
Anticipated Allocations this FY are: **$20,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Walnut Creek / Grayson Creek Levee Rehabilitation / 1
Project Number/Filename: pTP47 / creek_levee_rehab
Project Manager/% Expansion: Frost / 0

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
A. Current Carry-over	0	10,000	0	300,000	0	0
B. Anticipated Allocations	20,000	0	600,000	0	0	0
C. Authorized this Year	20,000	10,000	600,000	300,000	0	0
D. Estimated Expenditures	(10,000)	(10,000)	(300,000)	(300,000)	0	0
E. Estimated Carry-over	10,000	0	300,000	0	0	0

Permitting Study for New Furnace

Project Manager, Department/Division:
Andrew Antkowiak, Engineering/Capital Projects

Project Purpose:
Determine feasible future solid handling options.

Project History:
In early 2011, the EPA made changes to the Clean Air Act (CAA) to include sewage sludge incinerators in the category of solid waste incinerators. This changed the emission limits on nine pollutants. Current evaluation shows that the new limits can be attained by the District's existing Multiple Hearth Furnaces. Depending on new regulations the District may need to change the solids handling process. In order to determine feasible future solids handling options the District will investigate what permits and what requirements are needed to replace or install new incinerators.

Project Description:
Investigate what permits and requirements are needed to replace the existing Multiple Hearth Furnaces or install new fluidized bed incinerators. This study will be performed in conjunction with work being done on other projects.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2014	06/30/2017	$26,000
Design	-	-	$0
Construction	-	-	$0
		Total:	**$26,000**

Estimated expenditures this FY are: **$1,000**
Anticipated Allocations this FY are: **$25,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Permitting Study for New Furnace / 1
Project Number/Filename: pTP31 / permit_study_furnace
Project Manager/% Expansion: Antkowiak / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	0	24,000	0	0	0
B. Anticipated Allocations	0	25,000	1,000	0	0	0
C. Authorized this Year	0	25,000	25,000	0	0	0
D. Estimated Expenditures	0	(1,000)	25,000	0	0	0
E. Estimated Carry-over	0	24,000	0	0	0	0

Treatment Plant Soil Remediation

Project Manager, Department/Division:
Andrew Antkowiak, Engineering/Capital Projects

Project Purpose:
Relocate or remove and dispose of the contaminated soil in the area northeast of existing aeration tanks.

Project History:
In the 1960s, spoils from the Shell Refinery were brought onto the plant site. The spoils were contaminated with organic sludge, lead, sulfate dirt, tars and other contaminants. Approximately 150,000 cubic yards of the contaminated soil is located in the surcharge area. In order to site any new facilities in this area, the contaminated soil needs to be relocated on site or removed and disposed of at an appropriate class landfill. A separate project is characterizing and developing alternatives for relocation or removal of the contaminated soil.

Project Description:
Refine the alternatives, select the appropriate method and relocate or remove and dispose of the contaminated soils located northeast of the existing aeration tanks.

Project Location:
Treatment Plant area northeast of existing aeration tanks.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2012	07/01/2016	$52,000
Design	07/01/2016	07/01/2018	$100,000
Construction	07/01/2018	06/30/2023	$0
		Total:	**$152,000**

Estimated expenditures this FY are: **$1,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Treatment Plant Soil Remediation / 1
Project Number/Filename: pTP33 / plant_soil_rem
Project Manager/% Expansion: Antkowiak / 0

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	27,000	2,000	1,000	0	0
B. Anticipated Allocations	52,000	0	0	0	50,000	50,000
C. Authorized this Year	52,000	27,000	2,000	1,000	50,000	50,000
D. Estimated Expenditures	(25,000)	(25,000)	(1,000)	(1,000)	(50,000)	(10,000)
E. Estimated Carry-over	27,000	2,000	1,000	0	0	40,000

Treatment Plant Hazard Identification and Remediation

Project Manager, Department/Division:
Edgar Lopez, Engineering/Capital Projects

Project Purpose:
Increase personnel safety by identifying and reducing exposure to hazardous materials within the treatment plant.

Project History:
Recent construction projects have encountered hazardous materials requiring abatement, such as asbestos in pipe insulation, roofing materials, or lead paint. Exposure amounts and durations are limited by CalOSHA. Knowledge of these materials ahead of time allows District staff, the design engineer, or the contractor to properly prepare and equip themselves with Personal Protective Equipment (PPE), monitors and plan for medical surveillance. District staff performs urgent, and sometimes unscheduled, work to maintain operation of the facility, which hinders the ability to conduct testing in advance of their work to determine if hazardous materials are present and allow proper planning or mitigation to occur.

Project Description:
Develop a remediation plan to identify hazards and begin design and remediation efforts to reduce the potential for exposure within the plant to hazardous materials where feasible.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	10/01/2009	07/01/2012	$227,600
Construction	07/01/2012	06/30/2020	$526,000
		Total:	**$753,600**

Estimated expenditures this FY are: **$6,000**
Anticipated Allocations this FY are: **$100,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: TP Hazard Identification & Remediation / 1
Project Number/Filename: 7284 / TP_Hazard_ID
Project Manager/% Expansion: Lopez / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	7,000	27,000	121,000	127,000	177,000
B. Anticipated Allocations	125,000	100,000	100,000	106,000	150,000	150,000
C. Authorized this Year	125,000	107,000	127,000	227,000	277,000	327,000
D. Estimated Expenditures	(118,000)	(80,000)	(6,000)	(100,000)	(100,000)	(100,000)
E. Estimated Carry-over	7,000	27,000	121,000	127,000	177,000	227,000

Plant of the Future Roadmap

Project Manager, Department/Division:
Dan Frost, Engineering/Environmental Services

Project Description:
The Plant of the Future Roadmap is the recommended next phase from the 2011 Plant of the Future visioning exercise completed as part of District Project 7287 – Treatment Plant Master Plan Update. This project was funded as a Contingency project in FY 2013-14. Expenditures for 2014-15 and beyond were initially included in DP 7287, which will be closed out at the end of 2013-14. The Plant of the Future Roadmap will be a living plan flexible to changing regulatory drivers that will provide a framework for current and future planning efforts and capital projects consistent with the District's Strategic Plan, including:

- Update of previous 1999 Capacity Study and 1987 Master Plan maximizing use of past and current projects, reports, and research
- Coordination with the asset management program to address aging infrastructure
- Development of capital improvement project alternatives and costs to deal with projected flows and loadings and potential air, solids, and water regulations (e.g. furnace air emissions, greenhouse gases, nutrients, and constituents of emerging concern)
- Holistic evaluation of treatment plant alternatives considering cross media impacts to solids, liquids, and air processes and emissions, energy and steam management, and related impacts to operations and maintenance
- Piloting of innovative technologies and incorporation of pilot results into the Roadmap recommendations
- Interdepartmental planning and coordination to select optimal project alternatives, and implement near-term capital projects and optimization of on-going operations consistent with the long-term vision

The FY 2014-15 estimated expenditures are for expected pilot efforts only. Additional costs are expected to start and complete the Plant of the Future Roadmap.

Project Location:
Entire treatment plant

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	04/10/2014	07/01/2017	$450,000
Design	---	---	$0
Construction	---	---	$0
		Total:	**$450,000**

Estimated expenditures this FY are: **$100,000**
Anticipated Allocations this FY are: **$250,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Plant of the Future Roadmap / 1
Project Number/Filename: 7315 / Plant_
Project Manager/% Expansion: Frost / 80

	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	0	150,000	0	0
B. Anticipated Allocations	100,000	250,000	100,000	0	0
C. Authorized this Year	100,000	250,000	250,000	0	0
D. Estimated Expenditures	(100,000)	(100,000)	(250,000)	0	0
E. Estimated Carry-over	0	150,000	0	0	0

Treatment Plant Planning

Project Manager, Department/Division:
Dan Frost, Engineering/Environmental Services

Project Purpose:
Provide funding for feasibility and pilot-scale system work needed if emerging regulatory initiatives require Treatment Plant process modifications to maintain compliance.

Project History:
As wastewater regulations continue to develop and as new wastewater treatment technology becomes available, process modifications may be required in the Treatment Plant. Recently, staff has completed the URS model for greenhouse gas and conducted an exercise to scope the plant of the future for CCCSD. The District's NPDES permit for 2012-17 required a Facilities Plan which contained three elements:

1. Investigation of potential process optimization
2. Review and evaluation of new technology and proposed regulations
3. Characterization of material east of existing aeration basins

Project Description:
This project includes all three elements listed above. It also includes modeling of effluent ammonia in Suisun Bay and a nitrification rate study that includes potential for cyanide inhibition due to the scrubber water recycle stream. This project may also include pilot studies to assess technologies and develop design/operation parameters.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2011	05/10/2012	$4,084,500
Design	-	-	$0
Construction	05/10/2012	06/30/2022	$0
		Total:	**$4,084,500**

Estimated expenditures this FY are: **$371,000**
Anticipated Allocations this FY are: **$371,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Treatment Plant Planning / 1
Project Number/Filename: 7301 / TP_planning
Project Manager/% Expansion: Frost / 0

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	39,000	1,065,000	810,000	371,000	300,000	300,000
C. Authorized this Year	39,000	1,065,000	810,000	371,000	300,000	300,000
D. Estimated Expenditures	(39,000)	(1,065,000)	(810,000)	(371,000)	(300,000)	(300,000)
E. Estimated Carry-over	0	0	0	0	0	0

Treatment Plant Safety Enhancements Phase 4

Project Manager, Department/Division:
Brad Leidecker, Engineering/Capital Projects

Project Purpose:
To enhance plant safety through identification of safety concerns, repairs and capital improvements.

Project History:
The District and the treatment plant have very active and aggressive safety programs that are administered by separate committees. These committees are responsible for addressing safety concerns as identified by the craftsmen, or to respond to the ever-changing regulatory requirements. Often this response will require construction of a capital project. The first three phases of this program addressed various safety repairs and improvements.

Project Description:
This phase of the Safety Enhancements Project will include previously identified safety repairs and improvements not yet included in a construction project.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	09/01/2013	05/01/2014	$100,000
Construction	05/01/2014	11/30/2014	$240,000
		Total:	**$340,000**

Estimated expenditures this FY are: **$240,000**
Anticipated Allocations this FY are: **$240,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: TP Safety Enhancements Phase 4 / 1
Project Number/Filename: 7311 / TP_Safety_Enh_4
Project Manager/% Expansion: Leidecker / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	100,000	240,000	0	0	0	0
C. Authorized this Year	100,000	240,000	0	0	0	0
D. Estimated Expenditures	(100,000)	(240,000)	0	0	0	0
E. Estimated Carry-over	0	0	0	0	0	0

Treatment Plant Safety Improvements Program

Project Manager, Department/Division:
Andrew Antkowiak, Engineering/Capital Projects

Project Purpose:
This project will provide funding for safety projects.

Project History:
The District and the treatment plant have very active and aggressive safety programs that are administered by separate committees. These committees are responsible for addressing safety concerns as identified by the craftsmen, or to respond to the ever-changing regulatory requirements. Often this response will require construction of a capital project.

Project Description:
Install safety improvements for the treatment plant identified through District safety programs.

Project Location:
Entire treatment plant

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2011	07/01/2012	$0
Design	-	-	$0
Construction	07/01/2012	06/17/2020	$41,000
		Total:	**$41,000**

Estimated expenditures this FY are: **$1,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: TP Safety Improvements FY 2011-12 thru 2019-20 / 1
Project Number/Filename: pTP08 / TP_SafetyPGM
Project Manager/% Expansion: Antkowiak / 0

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
A. Current Carry-over	0	36,000	31,000	26,000	25,000	20,000
B. Anticipated Allocations	41,000	0	0	0	0	0
C. Authorized this Year	41,000	36,000	31,000	26,000	25,000	20,000
D. Estimated Expenditures	(5,000)	(5,000)	(5,000)	(1,000)	(5,000)	(5,000)
E. Estimated Carry-over	36,000	31,000	26,000	25,000	20,000	15,000

Treatment Plant Security Upgrade

Project Manager, Department/Division:
Shari Deutsch, Administrative/Safety & Risk Management

Project Purpose:
Reduce the District's exposure to liability and property loss; meet reliability/safety standards and reduce operations and maintenance expenses.

Project History:
The District has experienced loss of property in the past and improvements to the security system are being identified and refined. Also, the current national security situation may require additional security measures for essential public services.

Project Description:
This project will identify and implement projects to improve the security of District personnel and property. This project could include, but is not limited to, installation of alarm systems at critical sites on District property, additional gates in the perimeter security fencing, upgrading plant security cameras, signage, and improving general area lighting.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	03/01/2013	06/30/2022	$82,000
		Total:	**$82,000**

Estimated expenditures this FY are: **$1,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Treatment Plant Security Upgrade
Project Number/Filename: pTP23 / TP_Security
Project Manager/% Expansion: Deutsch / 0

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	11,000	1,000	0	10,000	0
B. Anticipated Allocations	12,000	0	0	20,000	0	20,000
C. Authorized this Year	12,000	11,000	1,000	20,000	10,000	20,000
D. Estimated Expenditures	(1,000)	(10,000)	(1,000)	(10,000)	(10,000)	(10,000)
E. Estimated Carry-over	11,000	1,000	0	10,000	0	10,000

Centrifuge and Cake Pump Upgrades

Project Manager, Department/Division:
Edgar Lopez, Engineering/Capital Projects

Project Purpose:
The purpose of this project is to improve solids capture and reliability of the sludge dewatering equipment.

Project History:
The existing centrifuges and cake pumps will have been in service for more than 24 years by 2014. The design life of rotating equipment is generally around 15 years. While routine rotation of the operational and stand-by centrifuge helps increase the operating lifespan, Operations can expect more frequent and extensive O&M requirements as the centrifuges and cake pumps continue to age. Historical plant data has shown that that the solids capture has decreased throughout the years. In addition, as centrifuge design and materials of construction continue to develop, the next generation of centrifuges is expected to last longer, cost less to operate, and produce a drier sludge, which would result in less furnace fuel to burn.

Project Description:
This project will use the information gathered under the Solids Handling Evaluation project and make improvements to the dewatering equipment and process for construction. Additional, related tasks will be included in this project as appropriate.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2014	01/01/2014	$0
Design	01/01/2014	07/01/2014	$350,000
Construction	07/01/2014	06/30/2017	$4,450,000
		Total:	**$4,800,000**

Estimated expenditures this FY are: **$ 800,000**
Anticipated Allocations this FY are: **$2,000,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Centrifuge & Cake Pump Upgrades / 2
Project Number/Filename: 7286 / cent_cake_pump_upg
Project Manager/% Expansion: Lopez / 0

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
A. Current Carry-over	0	1,200,000	400,000	0	0	0
B. Anticipated Allocations	2,000,000	1,400,000	1,400,000	0	0	0
C. Authorized this Year	2,000,000	2,600,000	1,800,000	0	0	0
D. Estimated Expenditures	(800,000)	(2,200,000)	(1,800,000)	0	0	0
E. Estimated Carry-over	1,200,000	400,000	0	0	0	0

Co-Gen Controls Upgrade

Project Manager, Department/Division:
Jason DeGroot, Engineering/Capital Projects

Project Purpose:
Replace the obsolete controls for the cogeneration turbine. In order to have a long-term service agreement that covers all parts and labor for a fixed monthly charge.

Project History:
The cogeneration system was installed in the early 1990's and the original control system and electro-hydraulic fuel deliver/control system are now obsolete.

Project Description:
The existing electro-hydraulic fuel deliver/control system will be replaced by an electronically controlled system. The existing control panel will be replaced. Field devices such as fire detection, pressure and temperature switches and other instrumentation will be replaced to work with the new control system. The design and installation of new interconnect wiring and other equipment will be performed by outside vendors and/or District Staff. Additional work included for the controls upgrade include: vibration monitoring equipment, remote monitoring equipment, turbine starting system replacement (with electric starter motor), and related equipment.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$250,000
Construction	01/01/2013	06/30/2015	$1,050,000
		Total:	**$1,300,000**

Estimated expenditures this FY are: **$60,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Co-Gen Controls Upgrade / 2
Project Number/Filename: 7308 / Co-Gen_Reno
Project Manager/% Expansion: DeGroot / 0

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	98,000	60,000	0	0	0
B. Anticipated Allocations	100,000	1,199,000	0	0	0	0
C. Authorized this Year	100,000	1,297,000	60,000	0	0	0
D. Estimated Expenditures	(2,000)	(1,237,000)	(60,000)	0	0	0
E. Estimated Carry-over	98,000	60,000	0	0	0	0

Plant Cyber Security

Project Manager, Department/Division:
Nathan Morales, Operations / Plant Operations

Project Purpose:
Protect the plant from electronic breaches through the plant control system, electrical distribution system, and/or equipment.

Project History:
In 2008, NACWA informed the District of the newly-identified risk for major service interruption through cyber vulnerabilities. The Water Sector Coordinating Council and the Department of Homeland Security developed a security sensitive Mitigation Plan, which included identification of all Programmable Language Controllers and Variable Frequency Drives for the plant's electrical and instrumentation systems; installation of electronic locks and intrusion alarms at Substation 82; installation of additional cameras to monitor the treatment plant; testing the integrity of the existing firewall; and obtaining a Cisco switch for electrical substation security. Some recommendations have already been implemented. This project will address the remaining, more costly measures.

Project Description:
The project will evaluate the plant control system and electrical distribution system for vulnerabilities to electronic breaches. If vulnerabilities are identified, then solutions will be identified, evaluated, and implemented to address these vulnerabilities.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2011	07/01/2012	$0
Design	07/01/2012	07/01/2013	$45,000
Construction	07/01/2013	06/30/2016	$25,000
		Total:	**$70,000**

Estimated expenditures this FY are: **$5,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Plant Cyber Security / 2
Project Number/Filename: pTP03 / cyber security
Project Manager/% Expansion: Morales / 0

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
A. Current Carry-over	0	0	15,000	10,000	5,000	0
B. Anticipated Allocations	25,000	25,000	20,000	0	0	0
C. Authorized this Year	25,000	25,000	35,000	10,000	5,000	0
D. Estimated Expenditures	(25,000)	(10,000)	(25,000)	(5,000)	(5,000)	0
E. Estimated Carry-over	0	15,000	10,000	5,000	0	0

DAF Tanks Renovation

Project Manager, Department/Division:
Brad Leidecker, Engineering/Capital Projects

Project Purpose:
To improve the reliability of the sludge thickening process by performing structural and coating rehabilitation to the dissolved air flotation (DAF) tanks.

Project History:
The District uses three DAF tanks, installed in approximately 1986, to thicken secondary sludge. In 2013, DAF Tank 1 required emergency repairs as a result of significant metal loss and failure of the rotating skimmer arms. Following the failure, each of the DAF tanks were sequentially taken out of service for detailed inspection and condition assessment. While inspection results showed Tank 1 was in the worst condition, it was recommended all tanks receive coating, structural and various repairs as a result of corrosion and wear.

Project Description:
The project will primarily include structural and protective coating rehabilitation to DAF Tanks 2 and 3. DAF Tank 1 will receive additional rehabilitation, which was not performed or not adequately performed during the 2013 emergency repairs. The project will also include electrical, control and lighting upgrades to plant standards.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	05/01/2013	07/01/2014	$70,000
Construction	07/01/2014	11/01/2014	$620,000
		Total:	**$690,000**

Estimated expenditures this FY are: **$500,000**
Anticipated Allocations this FY are: **$600,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: DAF Tank Renovation / 2
Project Number/Filename: 7309 / DAF_Tank_Reno
Project Manager/% Expansion: Leidecker / 0

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	92,000	10,000	0	0	0
B. Anticipated Allocations	100,000	0	600,000	0	0	0
C. Authorized this Year	100,000	92,000	610,000	0	0	0
D. Estimated Expenditures	(8,000)	(82,000)	(500,000)	0	0	0
E. Estimated Carry-over	92,000	10,000	0	0	0	0

Plant Control System I/O Replacement

Project Manager, Department/Division:
Nate Morales, Plant Operations/Operations

Project Purpose:
Upgrade the Treatment Plant Programmable Logic Controller Input and Output (I/O) cards and associated hardware with current technology to maintain reliable operation and vendor support.

Project History:
The first treatment plant I/O was installed in 1986. The number of I/O cards in use has increased from relatively few to nearly 1,800. Approximately 1,100 of these are currently obsolete. Replacement units cannot be purchased from the manufacturer nor are they fully supported. The District maintains an inventory of over 100 spare I/O cards to replace units as they fail.

Project Description:
This project will replace the treatment plant's obsolete I/O cards along with their mounting racks, communication modules, and power supplies with modern, fully supported products.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	07/01/2014	06/30/2020	$4,000,000
		Total:	**$4,000,000**

Estimated expenditures this FY are: **$10,000**
Anticipated Allocations this FY are: **$30,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Plant Control System I/O Replacement / 2
Project Number/Filename: pTP42 / IO_replacement
Project Manager/% Expansion: Morales / 0

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
A. Current Carry-over	0	20,000	10,000	(10,000)	3,990,000	2,230,000
B. Anticipated Allocations	30,000	0	0	4,300,000	0	0
C. Authorized this Year	30,000	20,000	10,000	4,290,000	3,990,000	2,230,000
D. Estimated Expenditures	(10,000)	(10,000)	(20,000)	(300,000)	(1,760,000)	(1,900,000)
E. Estimated Carry-over	20,000	10,000	(10,000)	3,990,000	2,230,000	330,000

Plant Control System Network Upgrades

Project Manager, Department/Division:
David Hefflefinger, Plant Operations/Operations

Project Purpose:
Upgrade the Plant Control System Ethernet Network to Industrial Ethernet standards.

Project History:
In 2006 the District's plant installed a new Ethernet based supervisory control and data acquisition (SCADA) system.

At the time the SCADA system was installed Ethernet was limited to the servers only and was redundant. Over time the Ethernet system expanded to the entire plant but the redundancy was not maintained. Currently, the primary path for plant data traffic runs over the Ethernet system that is neither redundant nor sufficiently reliable to meet control system standards.

Project Description:
Industrial Ethernet defines a set of standards for redundancy and reliability that are required for failsafe operation. This project will install and configure industrial type network switches, and install fiber optic lines to meet the standards for Industrial Ethernet for the plant control system. Additionally software shall be installed to allow remote programming and maintenance.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	07/01/2014	06/30/2018	$320,000
		Total:	**$320,000**

Estimated expenditures this FY are: **$80,000**
Anticipated Allocations this FY are: **$80,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Plant Control System Network Upgrades / 2
Project Number/Filename: pTP41 / network_upgrades
Project Manager/% Expansion: Hefflefinger / 0

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	80,000	80,000	80,000	80,000	0	0
C. Authorized this Year	80,000	80,000	80,000	80,000	0	0
D. Estimated Expenditures	(80,000)	(80,000)	(80,000)	(80,000)	0	0
E. Estimated Carry-over	0	0	0	0	0	0

PLC System Upgrades

Project Manager, Department/Division:
Chuck Burnash, Plant Operations/Operations

Project Purpose:
Upgrade Programmable Logic Controller (PLC) system to current technology for increased performance and improved compatibility.

Project History:
The first PLCs were installed in the treatment plant in 1986. The number of PLCs has increased from the original 2 to more than 30. Programming software for the newer PLCs no longer runs efficiently on the older programming units.

Project Description:
This project will continue to upgrade the treatment plant's PLC system by:

- Providing and upgrading hardware and software necessary to maintain the PLC application.
- Replacing older computers with newer ones capable of running current software.
- Upgrading older PLC models to maintain compatibility with new equipment.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$90,000
Construction	07/01/2012	06/17/2022	$668,700
		Total:	**$758,700**

Estimated expenditures this FY are: **$80,000**
Anticipated Allocations this FY are: **$80,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: PLC System Upgrades - FY 12-13 thru 21-22 / 2
Project Number/Filename: 7304 / plc_upgrades
Project Manager/% Expansion: Burnash / 0

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	21,000	21,000	21,000	0	0
B. Anticipated Allocations	60,000	80,000	80,000	59,000	80,000	80,000
C. Authorized this Year	60,000	101,000	101,000	80,000	80,000	80,000
D. Estimated Expenditures	(39,000)	(80,000)	(80,000)	(80,000)	(80,000)	(80,000)
E. Estimated Carry-over	21,000	21,000	21,000	0	0	0

Primary Treatment Renovation

Project Manager, Department/Division:
Clint Shima, Engineering/Capital Projects

Project Purpose:
This project will improve the reliability of the Primary Treatment area of the plant.

Project History:
Two of the four primary sedimentation tanks were constructed in the mid-1960s and the other two tanks were constructed in the mid-1970s as part of the 5A expansion project. Some components are corroding and nearing the end of their service life.

Project Description:
Renovate or replace the spray water and air supply pipelines at the primary sedimentation tanks. The primary scum collection system will be renovated with new scum sprays, new helical scum skimmers and drives, and a stainless steel scum hopper for Tanks 1 and 2. The scum thickening unit in the Solids Conditioning Building will also be replaced. Other primary tank improvements include installation of new baffles, replacing chain drives, sludge flight drive shafts and bearings, concrete repairs, upgrading hand railings, replacing the 22227 primary level control valve, replacing the primary MCCs and PLC panels, and installing new grit washing equipment. Refurbishment of Primary Effluent (PE) Pump 1 and PE Pump 2 are included in the project.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	07/01/2010	07/01/2011	$1,266,600
Construction	07/01/2011	06/30/2016	$13,117,100
		Total:	**$14,383,700**

Estimated expenditures this FY are: **$6,000,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Primary Treatment Renovation / 2
Project Number/Filename: 7285 / PrimaryTrtRenov
Project Manager/% Expansion: Shima / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	3,186,000	8,023,000	2,023,000	0	0
B. Anticipated Allocations	4,460,000	10,487,000	0	0	0	0
C. Authorized this Year	4,460,000	13,673,000	8,023,000	2,023,000	0	0
D. Estimated Expenditures	(1,274,000)	(5,650,000)	(6,000,000)	(1,460,000)	0	0
E. Estimated Carry-over	3,186,000	8,023,000	2,023,000	563,000	0	0

Pump & Blower Building Seismic Upgrades

Project Manager, Department/Division:
Jason DeGroot, Engineering/Capital Projects

Project Purpose:
Improve the seismic safety of the Pump & Blower Building.

Project History:
In January 2008, California adopted the 2007 California Building Code (2007 CBC). Among the updates in the 2007 CBC were significant changes to seismic design. In 2009 a seismic evaluation was completed of treatment plant facilities (Martinez Wastewater Treatment Plant Seismic Vulnerability Assessment of Selected Facilities, December 2009). Included in the evaluation are recommendations to bring the Pump & Blower Building in line with current seismic design standards.

Project Description:
Make seismic improvements to the Pump & Blower Building.

Project Location:
Pump & Blower Building

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2010	07/01/2011	$0
Design	07/01/2011	01/01/2012	$536,300
Construction	01/01/2012	06/30/2017	$3,300,000
		Total:	**$3,836,300**

Estimated expenditures this FY are: **$122,000**
Anticipated Allocations this FY are: **$150,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Pump & Blower Bldg Seismic Upgrade / 2
Project Number/Filename: 7291 / seismic_P&B_upg
Project Manager/% Expansion: DeGroot / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	119,000	119,000	147,000	778,000	0
B. Anticipated Allocations	405,000	150,000	150,000	3,181,000	0	0
C. Authorized this Year	405,000	269,000	269,000	3,328,000	778,000	0
D. Estimated Expenditures	(286,000)	(150,000)	(122,000)	(2,550,000)	(750,000)	0
E. Estimated Carry-over	119,000	119,000	147,000	778,000	0	0

Switchgear Refurbishment, Phase 2

Project Manager, Department/Division:
Clint T. Shima, Engineering/Capital Projects

Project Purpose:
Refurbish electrical switchgear to maintain the electrical reliability of the treatment plant.

Project History:
The electrical switchgear throughout the plant was installed in the 1970s and has been well maintained using preventative techniques, such as thermographic imaging, to identify potential problems and correct them prior to failure. Inspections in 2003 and 2004 showed that many of the trip units on the circuit breakers required replacement. Circuit breakers have been sent out for Class 1 reconditioning and trip unit replacement on an as-needed basis.

Project Description:
The remaining 480v circuit breakers (approx 66, Westinghouse/Cutler-Hammer), will be refurbished over a five-year period. Work also includes replacement of the switchgear and circuit breakers in Substation 16, as well as 2400v breakers at Substation 52, Substation 40, and air breakers at Substation 82. The labor and coordination will be performed by District maintenance staff.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	01/01/2010	07/01/2013	$206,800
Construction	07/01/2013	06/30/2018	$1,130,000
		Total:	**$1,336,800**

Estimated expenditures this FY are: **$100,000**
Anticipated Allocations this FY are: **$120,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Switchgear Replacement - ph 2 / 2
Project Number/Filename: 7292 / switch_2
Project Manager/% Expansion: Shima / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	(7,000)	43,000	63,000	73,000	73,000
B. Anticipated Allocations	100,000	250,000	120,000	250,000	450,000	167,000
C. Authorized this Year	100,000	243,000	163,000	313,000	523,000	240,000
D. Estimated Expenditures	(107,000)	(200,000)	(100,000)	(240,000)	(450,000)	(240,000)
E. Estimated Carry-over	(7,000)	43,000	63,000	73,000	73,000	0

Wet and Dry Scrubber Replacement

Project Manager, Department/Division:
Clint Shima, Engineering/Capital Projects

Project Purpose:
Replace the wet and dry scrubbers on each Multiple Hearth Furnace (MHF) based on the recommendations from the November 2005 Solids Handling Facilities Plan Update and the 2008 Black & Veatch Metals Removal Report.

Project History:
The Solids Handling Facilities Plan was updated in 2005. Incinerator Rx and Industrial Furnace Company (IFCO) determined that the Multiple Hearth Furnaces were in excellent condition and could last 20 or more years with current O&M practices. Included in the recommendations was that both the dry cyclone and the wet particulate scrubber were showing signs of wear and could use updating or replacement. Operations staff has also reported problems with the scrubber piping.

Project Description:
Replace the wet and dry scrubbers, and their associated piping and equipment on the MHFs. The project also includes side stream treatment of the scrubber water for the removal of cyanide if nitrification is required.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2011	06/01/2010	$51,000
Design	06/01/2010	07/01/2016	$800,100
Construction	07/01/2016	06/30/2019	$7,020,000
		Total:	**$7,871,100**

Estimated expenditures this FY are: **$100,000**
Anticipated Allocations this FY are: **$100,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Wet and Dry Scrubber Replacement / 2
Project Number/Filename: 7297 / wet_scrub_repl
Project Manager/% Expansion: Shima / 0

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
A. Current Carry-over	0	5,000	10,000	59,000	59,000	59,000
B. Anticipated Allocations	5,000	5,000	100,000	100,000	500,000	6,841,000
C. Authorized this Year	5,000	10,000	110,000	159,000	559,000	6,900,000
D. Estimated Expenditures	0	0	(51,000)	(100,000)	(500,000)	(3,400,000)
E. Estimated Carry-over	5,000	10,000	59,000	59,000	59,000	3,500,000

Cathodic Protection Systems Replacement

Project Manager, Department/Division:
Edgar Lopez, Engineering/Capital Projects

Project Purpose:
To extend the useful life of the District treatment plant facilities, structures and pipelines through cathodic protection.

Project History:
A master plan for treatment plant cathodic protection was prepared in 2006-07 and updated in 2010-11. The update identified facilities that needed replacement and improvements over the next five-year period and identified existing facilities requiring further investigation.

Project Description:
The current project will prioritize and implement urgent work recommended by the master plan update. Cathodic protection systems that are not providing adequate protection will be repaired and/or replaced, and any other facilities that may require cathodic protection will be identified. It is anticipated that several systems will require refurbishment over the next few years.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	07/01/2006	02/01/2007	$255,900
Construction	02/01/2007	06/17/2016	$315,400
		Total:	**$571,300**

Estimated expenditures this FY are: **$10,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: TP Cathodic Prot Sys Repl / 3
Project Number/Filename: 7254 / TP_cathodic
Project Manager/% Expansion: Lopez / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	54,000	49,000	39,000	0	0
B. Anticipated Allocations	600,000	0	0	0	0	0
C. Authorized this Year	600,000	54,000	49,000	39,000	0	0
D. Estimated Expenditures	(546,000)	(5,000)	(10,000)	(10,000)	0	0
E. Estimated Carry-over	54,000	49,000	39,000	29,000	0	0

Coating Renovation

Project Manager, Department/Division:
Edgar Lopez, Engineering/Capital Projects

Project Purpose:
Extend the useful life and minimize corrosion of select treatment plant equipment, piping, and surfaces through the application of coatings.

Project History:
The original treatment plant was built in the late 1940s. Since then, there have been multiple additions and expansions. Much of the process infrastructure has received limited coating or repainting. Prior phases of this project applied coatings to many components at the plant. During the summer of 2009, KTA-Tator, Inc. performed an evaluation of the protective coatings on the components around the treatment plant. The work was part of the Treatment Plant Protective Coatings, Phase 4 (DP 7247) project.

The Treatment Plant Asset Management Plan project (DP 7269) is documenting recent renewal and replacement projects and will ultimately provide recommendations for future renewal and/or replacement of equipment and facilities at the treatment plant.

Project Description:
Recommendations from both projects listed above will be used to plan future phases of the long-term protective coating program.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$1,000
Design	-	-	$1,000
Construction	07/01/2013	06/30/2022	$5,400,000
		Total:	**$5,402,000**

Estimated expenditures this FY are: **$1,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Coating Renovation / 3
Project Number/Filename: pTP16 / Coating_renov
Project Manager/% Expansion: Lopez / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	99,000	98,000	98,000	198,000	198,000
B. Anticipated Allocations	100,000	0	600,000	500,000	0	1,202,000
C. Authorized this Year	100,000	99,000	698,000	598,000	198,000	1,400,000
D. Estimated Expenditures	(1,000)	(1,000)	(600,000)	(400,000)	0	(1,400,000)
E. Estimated Carry-over	99,000	98,000	98,000	198,000	198,000	0

Concrete Renovation

Project Manager, Department/Division:
Edgar Lopez, Engineering/Capital Projects

Project Purpose:
Renovate concrete throughout the treatment plant.

Project History:
In 2009, the TP Asset Management project funded several condition assessments in the plant including one for concrete structures by Villalobos & Associates. Defects identified included cracking, corrosion, and spalling. The defects were prioritized for repair.

Project Description:
Renovate concrete structures where urgent repairs were identified in the condition assessment. This work will be incorporated into concurrent capital projects as appropriate. Future phases will address the remaining repairs and any additional ones that are identified.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$6,000
Construction	07/01/2013	06/30/2019	$650,000
		Total:	**$656,000**

Estimated expenditures this FY are: **$1,000**
Anticipated Allocations this FY are: **$1,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Concrete Renovation / 3
Project Number/Filename: pTP30 / Concrete_renov
Project Manager/% Expansion: Lopez / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	5,000	1,000	50,000	50,000	50,000	500,000
C. Authorized this Year	5,000	1,000	50,000	50,000	50,000	500,000
D. Estimated Expenditures	(5,000)	(1,000)	(50,000)	(50,000)	(50,000)	(500,000)
E. Estimated Carry-over	0	0	0	0	0	0

Electrical/Instrumentation Replacement Program

Project Manager, Department/Division:
Andrew Antkowiak, Engineering/Capital Projects

Project Purpose:
Identify deficiencies in the existing electrical and instrumentation system components and replace them prior to failure.

Project History:
The electrical/instrumentation system throughout the plant was installed in the mid-1970s, with significant upgrades from several major projects. However, the majority of equipment is 35 years old.

Project Description:
Replace antiquated and poor-performing field instrumentation and electrical equipment and systems. Appropriate upgrading will also be included to meet the latest governing codes such as the National Electric Code.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	07/01/2013	06/17/2023	$100,000
		Total:	**$100,000**

Estimated expenditures this FY are: **$10,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Plant Electrical and Instrumentation Repl / 3
Project Number/Filename: pTP06 / TP_ElecInstr
Project Manager/% Expansion: Antkowiak / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	10,000	0	0	0	0
B. Anticipated Allocations	20,000	0	10,000	10,000	10,000	10,000
C. Authorized this Year	20,000	10,000	10,000	10,000	10,000	10,000
D. Estimated Expenditures	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)
E. Estimated Carry-over	10,000	0	0	0	0	0

Electrical Cable Replacement

Project Manager, Department/Division:
Edgar Lopez, Engineering/ Capital Projects

Project Purpose:
The purpose of this project is to identify deficiencies in the existing electrical system and replace cables prior to failure.

Project History:
Treatment Plant operation is dependent on the electrical power system including the collection of feeders from the main substations to the local area substations. Loss or failure of these power conveyances would disrupt the plant's electrical system.

Project Description:
This project will evaluate the treatment plant's electrical feeders, and replace deficient cables due to age, undersize or functional obsolescence.

Project Location:
Entire treatment plant

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	07/01/2014	06/30/2023	$2,370,000
		Total:	**$2,370,000**

Estimated expenditures this FY are: **$10,000**
Anticipated Allocations this FY are: **$10,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: TP Electrical Cable Repl - LT / 3
Project Number/Filename: pTP45 / TP_E_cable
Project Manager/% Expansion: Lopez / 0

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	10,000	240,000	240,000	240,000	240,000	500,000
C. Authorized this Year	10,000	240,000	240,000	240,000	240,000	500,000
D. Estimated Expenditures	(10,000)	(240,000)	(240,000)	(240,000)	(240,000)	(500,000)
E. Estimated Carry-over	0	0	0	0	0	0

Equipment Replacement Program

Project Manager, Department/Division:
Andrew Antkowiak, Engineering/Capital Projects

Project Purpose:
Reduce maintenance costs, increase reliability, and improve operations through replacement or reconditioning of technologically obsolete, worn-out, maintenance intensive equipment, or equipment that is no longer supported by its manufacturer.

Project History:
The initial work on this project assembled a list of current equipment; verified equipment name, number, and size; acquired design records; and estimated equipment life and replacement cost. Several major pieces of equipment are reaching the end of their service life and require replacement/upgrading or reconditioning. The Treatment Plant Asset Management Plan project is documenting recent projects and will be used to provide recommendations for additional renewal and replacement needs.

Project Description:
Following are examples of equipment included in this project:

Filter Plant Polymer Pumps	Influent Pump Wear Rings	Scum Tank Assy.
3WLP 12" Strainer	Waste Steam Exchanger Shell	Headworks A/C
Grease Separator		

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	07/01/2007	06/17/2018	$1,018,100
Construction	07/01/2007	06/17/2018	$250,000
		Total:	**$1,268,100**

Estimated expenditures this FY are: **$50,000**
Anticipated Allocations this FY are: **$50,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: TP Equipment Replacement / 3
Project Number/Filename: 7265 / TP_EquipRepl
Project Manager/% Expansion: Antkowiak / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	49,000	49,000	49,000	54,000	0
B. Anticipated Allocations	1,067,000	50,000	50,000	55,000	46,000	0
C. Authorized this Year	1,067,000	99,000	99,000	104,000	100,000	0
D. Estimated Expenditures	(1,018,000)	(50,000)	(50,000)	(50,000)	(100,000)	0
E. Estimated Carry-over	49,000	49,000	49,000	54,000	0	0

Laboratory Upgrades and Repair

Project Manager, Department/Division:
Edgar Lopez, Engineering/Capital Projects

Project Purpose:
Repair, replace, and/or upgrade the treatment plant laboratory equipment.

Project History:
The District's laboratory was built in 2001 and operates several critical systems to maintain the facilities required to conduct testing. Such systems include hot water storage and distribution, compressed air, temperature control (heating and cooling), chiller, ventilation, hoods, vacuum system, and DI water. As these systems age, repairs and/or replacements/upgrades will be needed so that the laboratory remains operational.

Project Description:
This is a multi-year program to repair and upgrade the laboratory. Project work identified to date includes the following:

- Hot water heat exchangers and tanks are corroded.
- HVAC control systems are obsolete and outdated.
- DI tank may need replacement/ upgrade.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	07/01/2014	06/30/2024	$438,000
		Total:	**$438,000**

Estimated expenditures this FY are: **$48,000**
Anticipated Allocations this FY are: **$48,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Laboratory Upgrades & Repair / 3
Project Number/Filename: pTP24 / lab_upgrade_repair
Project Manager/% Expansion: Lopez / 0

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	48,000	50,000	0	0	60,000	50,000
C. Authorized this Year	48,000	50,000	0	0	60,000	50,000
D. Estimated Expenditures	(48,000)	(50,000)	0	0	(60,000)	(50,000)
E. Estimated Carry-over	0	0	0	0	0	0

Pavement Renovation

Project Manager, Department/Division:
Edgar Lopez, Engineering/Capital Projects

Project Purpose:
Renovate pavement throughout the treatment plant to maximize service life and maintain safe conditions.

Project History:
In 2009, the TP Asset Management project funded several condition assessments in the plant including one for asphalt pavement by Fugro West, which identified future renovations.

Project Description:
Renovate asphalt pavement as identified in multiple phases based on the condition assessment and changing condition of the pavement over time.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$56,000
Construction	07/01/2013	06/30/2023	$200,000
		Total:	**$256,000**

Estimated expenditures this FY are: **$1,000**
Anticipated Allocations this FY are: **$5,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Pavement Renovation / 3
Project Number/Filename: pTP29 / Pavement_renov
Project Manager/% Expansion: Lopez / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	0	4,000	4,000	4,000	4,000
B. Anticipated Allocations	5,000	5,000	50,000	50,000	50,000	50,000
C. Authorized this Year	5,000	5,000	54,000	54,000	54,000	54,000
D. Estimated Expenditures	(5,000)	(1,000)	(50,000)	(50,000)	(50,000)	(50,000)
E. Estimated Carry-over	0	4,000	4,000	4,000	4,000	4,000

Piping Renovations, Phase 8

Project Manager, Department/Division:
Brad Leidecker, Engineering/Capital Projects

Project Purpose:
To improve the reliability of the piping systems above and below ground in the treatment plant by inspection, renovation, and replacement where required.

Project History:
During the 5A project, numerous piping systems were installed throughout the treatment plant. These pipes carry the processed wastewater, sludge, steam, air, and other utility services between the various sections of the plant. These pipes have been in place for more than 40 years. Some of these pipes are leaking due to corrosion. The first seven phases of this program renovated or replaced various piping systems.

Project Description:
This phase of the Treatment Plant Piping Renovations Project will include previously identified piping renovations and replacement work not yet included in a construction project.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$100,000
Design	-	-	$150,000
Construction	07/01/2013	06/30/2016	$1,500,000
		Total:	**$1,750,000**

Estimated expenditures this FY are: **$150,000**
Anticipated Allocations this FY are: **$150,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Piping Renovations - phase 8 / 3
Project Number/Filename: 7310 / piping_reno_8
Project Manager/% Expansion: Leidecker / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	100,000	150,000	1,500,000	0	0	0
C. Authorized this Year	100,000	150,000	1,500,000	0	0	0
D. Estimated Expenditures	(100,000)	(150,000)	(1,500,000)	0	0	0
E. Estimated Carry-over	0	0	0	0	0	0

Plant Energy Optimization

Project Manager, Department/Division:
Edgar Lopez, Engineering/Capital Projects

Project Purpose:
Increase energy efficiency and decrease greenhouse gas emissions for the treatment plant.

Project History:
The implementation of AB 32 causes energy consumers to evaluate their energy use and develop carbon offsetting efficiencies to comply with new regulations. A number of potential energy efficiency projects are being refined. Many of these concepts are from the 2010 HDR report "AB 32 Compliance and Energy Optimization Evaluation." These project concepts require further evaluation and an understanding of potential implementation issues before implementation can move forward.

Project Description:
Evaluate proposed energy optimization projects. Many projects include rebates from PG&E. Staff will coordinate work with PG&E in order to obtain rebates and improve the payback of implemented projects. Current proposals to be evaluated include installing variable frequency drives on the furnace's combustion air blowers. As other energy efficiency proposals are made they will be included in this evaluation project.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2011	12/01/2011	$0
Design	12/01/2011	08/01/2012	$90,000
Construction	08/01/2012	06/30/2015	$0
		Total:	**$90,000**

Estimated expenditures this FY are: **$15,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Plant Energy Optimization / 3
Project Number/Filename: pTP32 / energy optimize
Project Manager/% Expansion: Lopez / 0

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
A. Current Carry-over	0	25,000	0	15,000	0	0
B. Anticipated Allocations	50,000	0	40,000	0	0	0
C. Authorized this Year	50,000	25,000	40,000	15,000	0	0
D. Estimated Expenditures	(25,000)	(25,000)	(25,000)	(15,000)	0	0
E. Estimated Carry-over	25,000	0	15,000	0	0	0

Treatment Plant Facilities Renovations Program

Project Manager, Department/Division:
Edgar Lopez, Engineering/Capital Projects

Project Purpose:
This project will investigate and renovate the treatment plant facilities including buildings, roofs, roads, HVAC, and the drainage system.

Project History:
In the mid-1980s, the treatment plant building roofs and paved areas were inspected and evaluated. A priority list was developed and a replacement program was implemented. Several other facilities will also be evaluated. Heavy construction traffic also continues to deteriorate the existing pavement within the plant site.

Project Description:
The Treatment Plant Asset Management Plan project is documenting recent renewal and replacement projects and will ultimately be used to provide recommendations for any additional renewal and replacement needs of equipment and facilities at the treatment plant due to aging or functional obsolescence.

Project Location:
Entire treatment plant

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	07/01/2013	06/30/2023	$2,890,000
		Total:	**$2,890,000**

Estimated expenditures this FY are: **$50,000**
Anticipated Allocations this FY are: **$50,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: TP Facilities Renov Pgm - LT / 3
Project Number/Filename: none / TP_FacilRenov
Project Manager/% Expansion: Lopez / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	50,000	50,000	100,000	100,000	100,000	500,000
C. Authorized this Year	50,000	50,000	100,000	100,000	100,000	500,000
D. Estimated Expenditures	(50,000)	(50,000)	(100,000)	(100,000)	(100,000)	(490,000)
E. Estimated Carry-over	0	0	0	0	0	10,000

Urgent Repairs Blanket Contract

Project Manager, Department/Division:
Edgar Lopez, Engineering/Capital Projects

Project Purpose:
Provide staff the capability to perform immediate electrical, mechanical, and other miscellaneous repairs within the treatment plant.

Project Description:
Urgent treatment plant projects which require immediate repairs or replacement may arise anytime during the current fiscal year. These projects may be triggered by:

- Equipment or process piping failure
- Comply with regulatory or code issues
- Impacts operational procedures or process
- Safety hazards

Projects included in this category are those that cannot be completed by the District's Plant Maintenance staff, and cannot afford the longer timeline to be incorporated in the budget process. This project will include bidding and executing a blanket contract that will allow the District to use a contractor for urgent construction work.

Project Location:
Treatment Plant

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	07/01/2013	02/01/2014	$0
Construction	02/01/2014	02/01/2023	$50,000
		Total:	**$50,000**

Estimated expenditures this FY are: **$10,000**
Anticipated Allocations this FY are: **$10,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Urgent Repairs Blanket Contract / 3
Project Number/Filename: 7314 / urgent_repairs
Project Manager/% Expansion: Lopez / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	10,000	10,000	10,000	10,000	10,000	0
C. Authorized this Year	10,000	10,000	10,000	10,000	10,000	0
D. Estimated Expenditures	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)	0
E. Estimated Carry-over	0	0	0	0	0	0

COLLECTION SYSTEM PROGRAM

TABLE OF CONTENTS

COLLECTION SYSTEM PROGRAM

TABLE OF CONTENTS

(Continued)

COLLECTION SYSTEM PROGRAM

This section includes detailed information for the Collection System Program. Table CS-1 presents specific project listings showing authorizations and allocations for total project costs. The subprogram names are used to categorize the projects among the several reasons for which the District does work.

OVERVIEW

The major points of emphasis for the Collection System Program in FY 2014-15 are:

- Renovate sewers as they reach the end of their useful lives to avoid structural failure, reduce dry-weather overflows, and control maintenance costs;
- Expand sewer and pumping facilities to accommodate approved growth in the District's service area;
- Upgrade District sewers to relieve capacity constraints;
- Improve the reliability of pumping stations; and
- Respond to regulatory requirements related to sanitary sewer overflows (SSOs).

The process for project identification, prioritization, and scheduling includes six major components:

- The Collection System Master Plan Update (2010), which identified capacity limitations for lines 10 inches in diameter and larger;
- Results from the District's TV inspection program that identify lines in need of rehabilitation or replacement;
- CSO maintenance records including overflows and stoppages;
- The Pumping Station Inventory Update (2011), which identified necessary capacity and reliability improvements;
- Collection system facility plans, which identify capacity limitations in the six through ten inch lines; and
- Coordination with capital improvement programs for paving and pipeline projects of other agencies/utilities.

This process allows staff to establish priorities and schedules for the individual elements of the system that are incorporated into the capital budget and plan. Assessment tools, such as CCTV inspection, are utilized to confirm the need for projects. After priorities and schedules are set, projects proceed to design and construction. At each step of the process, the level of accuracy in project scope, schedule and cost improves. The Collection System Program is comprised of the following subprograms.

Renovation (Tab 1)

Currently, there are more than 1,500 miles of sewer in the District's Collection System. Sewers and associated facilities have fixed useful lives. When a sewer nears the end of its useful life, maintenance costs, infiltration/inflow rates, and the threat of structural degradation increase. Proper management of the District's Collection System requires a program for the renovation of sewers that have reached the end of their useful lives.

In the FY 2014-15 Capital Budget, the largest renovation projects focus on multiple sites in Orinda, Lafayette, Martinez, and Walnut Creek.

The FY 2001-02 CIB initiated a District-wide TV inspection program to help identify and prioritize renovation needs. In FY 2013-14, the TV inspection program focused on high maintenance and problem areas in Orinda, Lafayette, and Walnut Creek. Beginning in FY 2014-15, the TV Inspection program was moved from the capital program to the Operations and Maintenance (O&M) budget.

Urgent projects may arise during a fiscal year or in the closing months of the prior fiscal year. These projects, which cannot afford the longer timeline to be incorporated in the year-long budget process, are included in this category of projects.

Smaller collection system projects are initiated through the ongoing collection system planning process. This planning activity evaluates capacity of sewers smaller than 12-inches in diameter on a case-by-case basis when triggered by one of the following:

- Capacity-related overflows
- Structural failure in a pipe
- Maintenance records indicate a persistent problem

By agreement with California River Watch, repairs of defective sewer pipes within two hundred feet of creeks will be given higher priority.

Regulatory Compliance/Planning/Safety (Tab 2)

The collection system planning process ensures timely reconstruction and replacement of the sewer collection system as needed. In the short term, the process ensures that developers pay their fair share for downstream improvements to provide capacity needed within the sewer main system. In the long term, it ensures that developments are not connected to deficient sewers. The Collection System Master Plan update process was completed in FY 2009-10 to accommodate the changing general and specific plans of the County and the municipalities that are served where higher densities of development are being widely adopted.

A Pumping Station Inventory document is periodically updated to include information as projects are completed.

Expansion (Tab 3)

Priorities called out in the Collection System Master Plan Update of 2010 have been used to establish the list of projects to be included in the Capital Improvement Plan for capacity reasons. Design of the trunk sewer improvements along the Grayson Creek Corridor in Pleasant Hill started in FY 2012-13 and will continue in 2014-15, with major project construction to take place in 2015-16. The subprogram includes Development Sewerage for 2014-15 and Contractual Assessment District projects.

Pumping Stations (Tab 4)

The Pumping Stations subprogram focuses on reliability, safety and operational improvements of pumping stations. The Buchanan South Pumping Station Replacement Sewer project will include removal of the South Buchanan Station and conversion to a gravity system.

Table CS-1: Collection System Subprogram/Project List

Subprogram / Project No. / Project Title			Estimated Total Project Expenditure	Estimated Expenditures To 6/30/2014	Anticipated Allocations FY 2014-15	Estimated Expenditures FY 2014-15
1	Renovation					
	8425	Cathodic Protection Systems - Phase 1	500,000	0	500,000	450,000
	8424	CIPP/Lining – Phase 1	3,800,000	0	3,800,000	800,000
	pCS2	Concrete Pipe Renovation Program	9,000	1,000	1,000	1,000
	8410	Cathodic Protection System Repl Program	806,900	56,900	0	50,000
	5976	Diablo Sewer Renovations - Ph 2	3,563,000	3,558,000	0	5,000
	8404	Lafayette Sewer Renovation - Ph 8	2,304,500	2,299,500	0	5,000
	none	Lafayette Sewer Renovations - Ph 10	3,505,000	0	250,000	55,000
	8421	Lafayette Sewer Renovations - Ph 9	3,350,000	100,000	550,000	450,000
	8415	Martinez Sewer Renovations - Ph 4	2,276,400	476,400	2,000,000	1,700,000
	8411	North Orinda Sewer Renovations - Ph 5	3,422,700	747,700	0	2,675,000
	8423	North Orinda Sewer Renovations - Ph 6	3,250,000	0	100,000	100,000
	5991	Pleasant Hill Sewer Renovations - Ph 2	3,400,000	250,000	400,000	50,000
	pCS1	Collection System Renovation Program	775,000	50,000	25,000	25,000
	8405	CIPP Project – FY 2013-14	2,978,000	2,928,000	0	50,000
	8413	Walnut Creek Sewer Renovations - Ph 10	3,373,700	673,700	2,600,000	2,700,000
	8422	Walnut Creek Sewer Renovations - Ph 11	3,150,000	0	250,000	100,000
	5982	Pipeburst Blanket Contract	687,200	462,200	0	75,000
	5999	CIPP Blanket Contract	372,200	147,200	100,000	75,000
	pCS4	Collection System Urgent Projects	450,000	50,000	50,000	50,000
	8417	Survey Monument Installation Project	500,700	100,700	50,000	50,000
		Subprogram Total	42,474,300	11,901,300	10,676,000	9,466,000
2	Reg. Compliance/Planning/Safety					
	8418	Collection System Modeling Upgrade	951,100	251,100	250,000	250,000
	8419	Collection System Planning	1,400,000	140,000	120,000	140,000
	5993	Forcemain Assessment	304,800	129,800	66,800	90,000
	5962	Manhole Remote Level Monitoring	350,700	230,700	25,200	120,000
		Subprogram Total	3,006,600	751,600	462,000	600,000

Table CS-1: Collection System Subprogram/Project List (Continued)

Subprogram / Project No. / Project Title			Estimated Total Project Expenditure	Estimated Expenditures To 6/30/2014	Anticipated Allocations FY 2014-15	Estimated Expenditures FY 2014-15
3	Expansion					
	8402	Contractual Assessment Districts	4,200,000	1,500,000	750,000	200,000
	8420	Development Sewerage	3,481,000	681,000	700,000	700,000
	pCS33	Trunk Sewer Expansion Program	9,000	1,000	1,000	1,000
	8412	Pleasant Hill - Grayson Creek Trunk	6,481,000	581,000	5,100,000	800,000
	Subprogram Total		14,171,000	2,763,000	6,551,000	1,701,000
4	Pumping Stations					
	pCS34	Misc. Force Main Improvements	40,000	0	0	0
	pCS31	Pump Station Hazard ID	30,000	25,000	5,000	5,000
	pCS36	Pumping Station Arc Flash Study	100,000	0	100,000	110,000
	5941	PS Equip & Piping Replacement	782,500	622,500	15,000	10,000
	8408	Pumping Stations Master Plan	350,000	120,000	85,000	80,000
	8406	Pump Station Safety & Security Imp	305,000	60,000	245,000	245,000
	Subprogram Total		2,159,300	1,369,300	450,000	450,000
	Program Total		61,811,200	16,785,200	18,139,000	12,217,000

Cathodic Protection Systems Replacement Program

Project Manager, Department/Division:
Sasha Mestetsky, Engineering/Capital Projects

Project Purpose:
This project will continue a District-wide cathodic protection survey of all underground facilities, including the pumping stations and buried metallic piping, by replacing existing spent facilities and installing new systems where required.

Project History:
The District is responsible for maintenance and operation of pumping stations and collection system pipelines. These facilities and systems along with other miscellaneous underground structures require continuous protection and monitoring. A comprehensive cathodic protection survey of the collection system, pumping stations and treatment plant was originally prepared in 2008 and was updated in 2012.

Project Description:
This project will include continued monitoring of the cathodic protection systems and development of future cathodic protection projects. Work on this project will be coordinated with similar efforts in the treatment plant and recycled water systems.

Project Location:
Throughout the District service area.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$375,900
Construction	07/01/2012	06/30/2023	$431,000
		Total:	**$806,900**

Estimated expenditures this FY are: **$50,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Cathodic Protection System Replacement - 12-13 thru 21-22
Project Number/Filename: 8410 / cs_cathodic
Project Manager/% Expansion: Mestetsky / 0

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	193,000	143,000	93,000	93,000	93,000
B. Anticipated Allocations	200,000	0	0	100,000	100,000	100,000
C. Authorized this Year	200,000	193,000	143,000	193,000	193,000	193,000
D. Estimated Expenditures	(7,000)	(50,000)	(50,000)	(100,000)	(100,000)	(100,000)
E. Estimated Carry-over	193,000	143,000	93,000	93,000	93,000	93,000

Cathodic Protection Systems - Phase 1

Project Manager, Department/Division:
Michael Penny, Engineering/Capital Projects

Project Purpose:
This project will repair, update, and upgrade underground facilities, including the pumping stations and buried metallic piping, by replacing existing spent facilities and installing new systems where required.

Project History:
A comprehensive cathodic protection survey of the collection system, pumping stations and treatment plant was prepared in 2008 and was updated in 2012. Based on the results of the survey, the Cathodic Protection System Replacement project developed the scope and initial design concepts for this project.

Project Description:
This project will include required maintenance, replacement, and/or addition of cathodic protection systems to those sites identified as high or moderate priority in the 2012 survey update. Work includes installation of new anode beds, vent piping, test stations, and induced current cathodic protection systems on the treatment plant site, eight pump stations, and six force mains. Miscellaneous corrosion related repairs will be included in the scope of this project.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	04/01/2014	06/30/2016	$500,000
		Total:	**$500,000**

Estimated expenditures this FY are: **$450,000**
Anticipated Allocations this FY are: **$500,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Cathodic Protection Ph 1 / 1
Project Number/Filename: 8425 / Cathodic_Prot_1
Project Manager/% Expansion: Penny / 0

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
A. Current Carry-over	0	50.000	0	0	0	0
B. Anticipated Allocations	500,000	0	0	0	0	0
C. Authorized this Year	500,000	50,000	0	0	0	0
D. Estimated Expenditures	(450,000)	(50,000)	0	0	0	0
E. Estimated Carry-over	50,000	0	0	0	0	0

Collection System Renovation Program

Project Manager, Department/Division:
Sasha Mestetsky, Engineering/Capital Projects

Project Purpose:
To systematically replace or renovate small-diameter sewers to control future maintenance requirements and costs, to minimize the number of overflows, to limit the quantity of rainfall entering the collection system, and to improve the level of service provided (as measured by stoppages, private property damage, traffic problems, entry onto private property) to the residents/ratepayers.

Project History:
The District's over 1,500-mile collection system has pipe segments that range in age from new to more than 100 years old. Some of the pipe segments are at or near the end of their useful life as evidenced by their need for frequent maintenance, high rate of infiltration, and/or threat of structural collapse. More than 300 miles of the small-diameter sewers in the collection system were constructed prior to 1956. The methods and materials of construction used at that time do not currently perform well, and they are the source of over 90 percent of the dry-weather collection system overflows.

In January 2001, USEPA released a proposed regulation setting out requirements for capacity analysis, management, operation and maintenance of sewer systems. The proposed regulation was immediately withdrawn by the incoming administration. In the absence of the federal program, all California Regional Water Quality Control Boards have included similar requirements in regulation. An order was also promulgated by the State Water Resources Control Board during 2005. In many regions, the State program has replaced the Regional program. While the State's Order has precedence over the Regional regulation for the SF Bay region, periodically, there are issues requiring duplicate reporting.

The District implemented a sewer renovation program in 1991. Since that time, an annual allowance for this renovation program has been included in the Capital Improvement Budget and Plan.

Project Description:
The Collection System Renovation Program is an ongoing series of projects. Candidate sewer line segments are identified, evaluated, and placed on a priority list for replacement or renovation. Within the Collection System Operations and Engineering Departments, staff identifies the candidate sewer lines. These line segments are grouped by geographical area into projects totaling 5,000 to 15,000 feet of sewer replacement or renovation. In FY 2014-15, the renovation program plan is to construct Martinez Sewer Renovations Phase 4, North Orinda Phase 5, and Walnut Creek Phase 10. In addition, design will begin or continue on North Orinda Phase 6, Walnut Creek Phase 11, and Lafayette Phases 9 and 10.

Blanket contracts for cured-in-place lining and pipe bursting were bid in the last few years and work continues under these contracts this year. The blanket contracts will allow the District to address critical renovations throughout the service area in a more timely fashion. A multi-year cathodic protection program to evaluate and renovate existing systems will continue during this fiscal year.

The multi-year television inspection of the collection system continues as Operations and Maintenance work and is no longer being done under a capital project. The information will be used in conjunction with the renovation strategy to develop the appropriate yearly expenditure levels. In addition, technology demonstration projects will be conducted to evaluate various manhole rehabilitation products and no dig pipeline rehabilitation methods.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2013	07/01/2014	$0
Design	-	-	$25,000
Construction	07/01/2014	06/30/2022	$750,000
		Total:	**$775,000**

Estimated expenditures this FY are: **$25,000**
Anticipated Allocations this FY are: **$25,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Collection System Renovation Program / 1
Project Number/Filename: pCS16 / csr_program_LT
Project Manager/% Expansion: Mestetsky / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	50,000	25,000	100,000	100,000	100,000	100,000
C. Authorized this Year	50,000	25,000	100,000	100,000	100,000	100,000
D. Estimated Expenditures	(50,000)	(25,000)	(100,000)	(100,000)	(100,000)	(100,000)
E. Estimated Carry-over	0	0	0	0	0	0

CIPP Project – FY 2013-14

Project Manager, Department/Division:
Sasha Mestetsky, Engineering/Capital Projects

Project Description:
This project will renovate approximately 2,600 feet of existing large diameter deteriorated corrugated metal and reinforced concrete pipeline located in South Main between Hill Road and Lilac Drive in Walnut Creek Utilizing cured in place pipe (CIPP). Approximately 1,450 feet of large diameter deteriorated corrugated metal pipe will also be renovated in Lancaster Road between Westwood Court and Orchard Lane using CIPP. An additional 3,800 feet of large diameter reinforced concrete pipe will be renovated on the Shell Refinery Property and east along Marina Vista to Highway I-680.

Project Location:
Walnut Creek and Martinez

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2011	06/30/2012	$0
Design	06/30/2012	05/03/2013	$700,000
Construction	05/03/2013	06/30/2015	$2,278,000
		Total:	**$2,978,000**

Estimated expenditures this FY are: **$50,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: 2013 & 2014 CIPP Project / 1
Project Number/Filename: 8405 / csr_SouthMainSlip
Project Manager/% Expansion: Mestetsky / 0

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
A. Current Carry-over	0	122,000	294,000	50,000	0	0
B. Anticipated Allocations	260,000	750,000	1,968,000	0	0	0
C. Authorized this Year	260,000	872,000	2,262,000	50,000	0	0
D. Estimated Expenditures	(138,000)	(578,000)	(2,212,000)	(50,000)	0	0
E. Estimated Carry-over	122,000	294,000	50,000	0	0	0

CIPP/Lining, Phase 1

Project Manager, Department/Division:
Sasha Mestetsky, Engineering/Capital Projects

Project Description:
This project will renovate approximately 3,000 feet of M1, a 42" diameter reinforced concrete pipeline located on the treatment plant site. Approximately 400 feet of the M6 force main may also be lined under this project. Design work is scheduled to start in 2014-15, with major construction early in 2015-16.

Project Location:
CCCSD Treatment Plant Site

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	07/01/2014	06/30/2016	$3,800,000
		Total:	**$3,800,000**

Estimated expenditures this FY are: **$800,000**
Anticipated Allocations this FY are: **$3,800,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: CIPP Lining Project / 1
Project Number/Filename: 8424 / CIPP_lining
Project Manager/% Expansion: Mestetsky / 0

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
A. Current Carry-over	0	3.000.000	0	0	0	0
B. Anticipated Allocations	3,800,000	0	0	0	0	0
C. Authorized this Year	3,800,000	3,000,000	0	0	0	0
D. Estimated Expenditures	(800,000)	(3,000,000)	0	0	0	0
E. Estimated Carry-over	3,000,000	0	0	0	0	0

Diablo Sewer Renovations, Phase 2

Project Manager, Department/Division:
Mark Wenslawski, Engineering/Capital Projects

Project Purpose:
The existing sewer running along Calle Arroyo and through property at #1903 to #1963 Alameda Diablo are very shallow (as little as 1-ft of cover), notoriously flat and generally in poor condition. Diablo Phase 2 proposes to lower and increase fall for these lines by re-laying downstream lines at lower slopes and realigning the sewer in various places to avoid conflicts.

Project Description:
The Diablo Sewer Renovations, Phase 2 project will replace/relocate approximately 8,000 feet of 6-inch and 8-inch sewer pipe in the public right of way and easements. The project is scheduled for construction in FY 2012-13 and FY 2013-14, with minor additional work in 2014-15.

Project Location:
Diablo service area.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	08/01/2009	06/01/2009	$0
Design	06/01/2009	06/01/2013	$717,200
Construction	06/01/2013	06/17/2015	$2,845,800
		Total:	**$3,563,000**

Estimated expenditures this FY are: **$5,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Diablo Renovations - ph 2 / 1
Project Number/Filename: 5976 / csr_diablo2
Project Manager/% Expansion: Wenslawski / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	(17,000)	5,000	0	0	0
B. Anticipated Allocations	700,000	2,863,000	0	0	0	0
C. Authorized this Year	700,000	2,846,000	5,000	0	0	0
D. Estimated Expenditures	(717,000)	(2,841,000)	(5,000)	0	0	0
E. Estimated Carry-over	(17,000)	5,000	0	0	0	0

Lafayette Sewer Renovations, Phase 8

Project Manager, Department/Division:
Nancy Molina, Engineering/Capital Projects

Project Purpose:
The Lafayette Sewer Renovations, Phase 8 project will replace/rehabilitate approximately 8,300 feet of 6 and 8-inch sewer pipe predominately in the South Peardale area. The design of this project has been completed with construction scheduled to be completed this fiscal year.

Project Location:
Locations throughout city of Lafayette service area.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2010	07/01/2011	$0
Design	07/01/2011	07/01/2012	$759,100
Construction	07/01/2012	06/30/2015	$1,545,400
		Total:	**$2,304,500**

Estimated expenditures this FY are: **$5,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Lafayette Sewer Renovation - ph 8 / 1
Project Number/Filename: 8404 / csr_laf8
Project Manager/% Expansion: Molina / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	1,068,000	4,000	0	0	0
B. Anticipated Allocations	2,304,000	0	0	0	0	0
C. Authorized this Year	2,304,000	1,068,000	4,000	0	0	0
D. Estimated Expenditures	(1,236,000)	(1,064,000)	(5,000)	0	0	0
E. Estimated Carry-over	1,068,000	4,000	(1,000)	0	0	0

Lafayette Sewer Renovations, Phase 9

Project Manager, Department/Division:
Nancy Molina, Engineering/Capital Projects

Project Purpose:
The Lafayette Sewer Renovations, Phase 9 project will replace/rehabilitate approximately 5,000 to 10,000 feet of 6 and 15-inch sewer in Lafayette. The design of this project started in FY 2013-14 with construction scheduled for FY 2014-15.

Project Location:
Locations mainly in the city of Lafayette service area.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2013	09/01/2013	$0
Design	09/01/2013	04/01/2014	$650,000
Construction	04/01/2014	06/30/2017	$2,700,000
		Total:	**$3,350,000**

Estimated expenditures this FY are: **$450,000**
Anticipated Allocations this FY are: **$550,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Lafayette Sewer Renovations - ph 9 / 1
Project Number/Filename: 8421 / csr_Lafayette9
Project Manager/% Expansion: Molina / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	0	100.000	300.000	0	0
B. Anticipated Allocations	100,000	550,000	2,700,000	0	0	0
C. Authorized this Year	100,000	550,000	2,800,000	300,000	0	0
D. Estimated Expenditures	(100,000)	(450,000)	(2,500,000)	(300,000)	0	0
E. Estimated Carry-over	0	100,000	300,000	0	0	0

Lafayette Sewer Renovations, Phase 10

Project Manager, Department/Division:
Nancy Molina, Engineering/Capital Projects

Project Purpose:
The Lafayette Sewer Renovations, Phase 10 project will replace/rehabilitate approximately 5,000 to 10,000 feet of sewer ranging in size from six to fifteen-inches in Lafayette. The design of this project will start in FY2014-15 with construction scheduled for FY 2015-16.

Project Location:
Locations primarily in the City of Lafayette service area.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2014	09/01/2014	$0
Design	09/01/2014	07/01/2016	$355,000
Construction	07/01/2016	06/30/2018	$3,150,000
		Total:	**$3,505,000**

Estimated expenditures this FY are: **$55,000**
Anticipated Allocations this FY are: **$250,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Lafayette Sewer Renovations - ph 10 / 1
Project Number/Filename: none / csr_Lafayette10
Project Manager/% Expansion: Molina / 0

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
A. Current Carry-over	0	195.000	300.000	200.000	0	0
B. Anticipated Allocations	250,000	255,000	3,000,000	0	0	0
C. Authorized this Year	250,000	450,000	3,300,000	200,000	0	0
D. Estimated Expenditures	(55,000)	(150,000)	(3,100,000)	(200,000)	0	0
E. Estimated Carry-over	195,000	300,000	200,000	0	0	0

Martinez Sewer Renovations, Phase 4

Project Manager, Department/Division:
Michael Penny, Engineering/Capital Projects

Project Description:
The Martinez Sewer Renovations, Phase 4 project will replace or rehabilitate approximately 6,000 to 8,000 feet of 6- and 8-inch sewer pipe located in the public right of way and easements. Design started in FY 2012-13 with major construction in FY 2014-15.

Project Location:
Locations mainly in the city of Martinez service area.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	07/01/2012	07/01/2014	$476,400
Construction	07/01/2014	06/30/2016	$1,800,000
		Total:	**$2,276,400**

Estimated expenditures this FY are: **$1,700,000**
Anticipated Allocations this FY are: **$2,000,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Martinez Sewer Renovations Phase 4 / 1
Project Number/Filename: 8415 / csr_Martinez4
Project Manager/% Expansion: Penny / 0

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	124,000	(34,000)	334,000	0	0
B. Anticipated Allocations	150,000	110,000	2,000,000	0	0	0
C. Authorized this Year	150,000	234,000	2,034,000	334,000	0	0
D. Estimated Expenditures	(26,000)	(200,000)	(1,700,000)	(100,000)	0	0
E. Estimated Carry-over	124,000	(34,000)	334,000	0	0	0

North Orinda Sewer Renovations, Phase 5

Project Manager, Department/Division:
Mark Wenslawski, Engineering/Capital Projects

Project Purpose:
The North Orinda Sewer Renovations, Phase 5 project will replace/rehabilitate approximately 8,000 feet of 6, 8, and 12-inch line in North Orinda. The design started in FY 2012-13 with construction scheduled for completion in FY 2014-15.

Project Location:
Locations mainly in the city of Orinda service area.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2012	09/01/2012	$0
Design	09/01/2012	07/01/2013	$547,700
Construction	07/01/2013	06/30/2015	$2,875,000
		Total:	**$3,422,700**

Estimated expenditures this FY are: **$2,675,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: North Orinda Sewer Renovations - ph 5 / 1
Project Number/Filename: 8411 / csr_NOrinda5
Project Manager/% Expansion: Wenslawski / 0

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	(23,000)	2,675,000	0	0	0
B. Anticipated Allocations	425,000	2,998,000	0	0	0	0
C. Authorized this Year	425,000	2,975,000	2,675,000	0	0	0
D. Estimated Expenditures	(448,000)	(300,000)	(2,675,000)	0	0	0
E. Estimated Carry-over	(23,000)	2,675,000	0	0	0	0

North Orinda Sewer Renovations, Phase 6

Project Manager, Department/Division:
Mark Wenslawski, Engineering/Capital Projects

Project Purpose:
The North Orinda Sewer Renovations, Phase 6 project will replace/rehabilitate approximately 5,000 to 10,000 feet of 6, 8, and 12-inch line in North Orinda. The design work was scheduled to start in FY 2013-14 with construction scheduled for completion in FY 2016-17.

Project Location:
Locations mainly in the city of Orinda service area.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2013	09/01/2015	$0
Design	09/01/2015	07/01/2016	$500,000
Construction	07/01/2016	06/30/2017	$2,750,000
		Total:	**$3,250,000**

Estimated expenditures this FY are: **$100,000**
Anticipated Allocations this FY are: **$100,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: North Orinda Sewer Renovations - ph 6 / 1
Project Number/Filename: 8423 / csr_NOrinda6
Project Manager/% Expansion: Wenslawski / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	100,000	100,000	0	0	0
B. Anticipated Allocations	100,000	100,000	50,000	3,000,000	0	0
C. Authorized this Year	100,000	200,000	150,000	3,000,000	0	0
D. Estimated Expenditures	0	(100,000)	(150,000)	(3,000,000)	0	0
E. Estimated Carry-over	100,000	100,000	0	0	0	0

Pleasant Hill Sewer Renovations, Phase 2

Project Manager, Department/Division:
Sasha Mestetsky, Engineering/Capital Projects

Project Description:
The Pleasant Hill Sewer Renovations, Phase 2 project will replace/rehabilitate approximately 5,000 to 10,000 feet in the range of 6 and 8-inch sewer pipe in the public right of way and easements throughout the city of Pleasant Hill. Design of this project will start in FY 2011-12 with construction scheduled in FY 2016-17.

This project will be coordinated with the Pleasant Hill - Grayson Creek trunk sewer project, which is in the Expansion subprogram.

Project Location: City of Pleasant Hill

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	12/01/2008	07/01/2011	$0
Design	07/01/2011	07/01/2015	$500,000
Construction	07/01/2015	06/30/2017	$2,900,000
		Total:	**$3,400,000**

Estimated expenditures this FY are: **$50,000**
Anticipated Allocations this FY are: **$400,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Pleasant Hill Sewer Renovations - ph 2 / 1
Project Number/Filename: 5991 / csr_ph2
Project Manager/% Expansion: Mestetsky / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carrv-over	0	267.000	150.000	500.000	2.900.000	0
B. Anticipated Allocations	400,000	0	400,000	2,600,000	0	0
C. Authorized this Year	400,000	267,000	550,000	3,100,000	2,900,000	0
D. Estimated Expenditures	(133,000)	(117,000)	(50,000)	(200,000)	(2,900,000)	0
E. Estimated Carry-over	267,000	150,000	500,000	2,900,000	0	0

Walnut Creek Renovations, Phase 10

Project Manager, Department/Division:
Nancy Molina, Engineering/Capital Projects

Project Purpose:
The Walnut Creek Renovations, Phase 10 project will replace/rehabilitate approximately 8,500 feet of 6 and 8-inch sewer in the public right of way and easements throughout the City of Walnut Creek. Design of this project started in FY 2012-13 with construction scheduled for FY 2014-15.

Project Location:
Locations are mainly in the city of Walnut Creek service area.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2012	09/01/2012	$0
Design	09/01/2012	07/01/2013	$673,700
Construction	07/01/2013	06/30/2015	$2,700,000
		Total:	**$3,373,700**

Estimated expenditures this FY are: **$2,700,000**
Anticipated Allocations this FY are: **$2,600,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Walnut Creek Sewer Renovations - ph 10 / 1
Project Number/Filename: 8413 / csr_WC10
Project Manager/% Expansion: Molina / 0

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	55.000	55.000	0	0	0
B. Anticipated Allocations	329,000	400,000	2,600,000	0	0	0
C. Authorized this Year	329,000	455,000	2,655,000	0	0	0
D. Estimated Expenditures	(274,000)	(400,000)	(2,700,000)	0	0	0
E. Estimated Carry-over	55,000	55,000	0	0	0	0

Walnut Creek Renovations, Phase 11

Project Manager, Department/Division:
Nancy Molina, Engineering/Capital Projects

Project Purpose:
The Walnut Creek Renovations, Phase 11 project will replace/rehabilitate approximately 5,000 to 10,000 feet of six-and eight-inch sewer in the public right of way and easements throughout the City of Walnut Creek. Design of this project will start in FY2014-15 with construction scheduled for FY2016-17.

Project Location:
Locations are mainly in the City of Walnut Creek service area.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2014	09/01/2014	$0
Design	09/01/2014	05/01/2016	$350,000
Construction	05/01/2016	06/30/2017	$2,800,000
		Total:	**$3,150,000**

Estimated expenditures this FY are: **$100,000**
Anticipated Allocations this FY are: **$250,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Walnut Creek Sewer Renovations - ph 11 / 1
Project Number/Filename: 8422 / csr_WC11
Project Manager/% Expansion: Molina / 0

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
A. Current Carry-over	0	150,000	150,000	0	0	0
B. Anticipated Allocations	250,000	150,000	2,750,000	0	0	0
C. Authorized this Year	250,000	300,000	2,900,000	0	0	0
D. Estimated Expenditures	(100,000)	(150,000)	(2,900,000)	0	0	0
E. Estimated Carry-over	150,000	150,000	0	0	0	0

Collection System Urgent Projects

Project Manager, Department/Division:
Sasha Mestetsky, Engineering/Capital Projects

Project Purpose:
This project will restore and protect sewers damaged or threatened during winter storms. In addition, the program will address structurally deficient sewers identified by CSO.

Project History:
During major storm events, sewers at various locations may be damaged or threatened. In some cases, landslides or soil erosion may undermine the sewers. The repair and restoration of these sewers is typically time sensitive. In addition, the District has embarked on an extensive investigation of the condition of its sewer system. Occasionally, sewers in very poor condition are identified and cannot wait for incorporation into the CIB/CIP. Such situations will be addressed under this program.

Project Location:
Throughout the District.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2013	07/01/2014	$0
Design	-	-	$0
Construction	07/01/2014	06/17/2022	$450,000
		Total:	**$450,000**

Estimated expenditures this FY are: **$50,000**
Anticipated Allocations this FY are: **$50,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Collection System Urgent Projects - FY 2013-14 thru 22-23 /
Project Number/Filename: pCS40 / csu_LT
Project Manager/% Expansion: Mestetsky / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	50,000	50,000	50,000	50,000	50,000	50,000
C. Authorized this Year	50,000	50,000	50,000	50,000	50,000	50,000
D. Estimated Expenditures	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)
E. Estimated Carry-over	0	0	0	0	0	0

CIPP Blanket Contract

Project Manager:
Alex Rozul, Collection Systems Operation

Project Description:
Urgent pipeline projects which require immediate repairs may arise anytime during current fiscal year.

These projects may be triggered by one of the following situations:

- imminent threat of pipe break or collapse
- potential for an overflow
- structural failure in a pipe

Projects included in this category are those that cannot be completed by the District's Collection System Operations Department, and cannot afford the longer timeline to be incorporated in the year-long budget process. This project will include bidding and executing a blanket contract that will allow the District to use a contractor to perform urgent CIPP lining work.

Project Location:
Throughout the service area.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	07/01/2010	08/14/2013	$44,100
Construction	08/14/2013	06/30/2018	$328,100
		Total:	**$372,200**

Estimated expenditures this FY are: **$75,000**
Anticipated Allocations this FY are: **$100,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: CIPP Blanket Contract / 1
Project Number/Filename: 5999 / csu_CIPP
Project Manager/% Expansion: Rozul / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	45,000	45,000	70,000	100,000	50,000
B. Anticipated Allocations	92,000	100,000	100,000	80,000	0	0
C. Authorized this Year	92,000	145,000	145,000	150,000	100,000	50,000
D. Estimated Expenditures	(47,000)	(100,000)	(75,000)	(50,000)	(50,000)	(50,000)
E. Estimated Carry-over	45,000	45,000	70,000	100,000	50,000	0

Pipeburst Blanket Contract

Project Manager:
Alex Rozul, Collection Systems Operation

Project Description:
Urgent pipeline projects which require immediate repairs may arise anytime during current fiscal year.

These projects may be triggered by one of the following situations:

- imminent threat of pipe break or collapse
- potential for an overflow
- structural failure in a pipe

Projects included in this category are those that cannot be completed by the District's Collection System Operations Department, and cannot afford the longer timeline to be incorporated in the year-long budget process. This project will include bidding and executing a blanket contract that will allow the District to use a contractor to perform urgent pipebursting work.

Project Location:
Throughout the service area.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	07/01/2010	03/01/2011	$18,000
Construction	03/01/2011	06/30/2018	$669,200
		Total:	**$687,200**

Estimated expenditures this FY are: **$75,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Pipeburst Blanket Contract / 1
Project Number/Filename: 5982 / csu_burst
Project Manager/% Expansion: Rozul / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	266,000	166,000	91,000	41,000	50,000
B. Anticipated Allocations	628,000	0	0	0	59,000	0
C. Authorized this Year	628,000	266,000	166,000	91,000	100,000	50,000
D. Estimated Expenditures	(362,000)	(100,000)	(75,000)	(50,000)	(50,000)	(50,000)
E. Estimated Carry-over	266,000	166,000	91,000	41,000	50,000	0

Concrete Pipe Renovation Program

Project Manager, Department/Division:
Sasha Mestetsky, Engineering/Capital Projects

Project Purpose:
Identify concrete pipe that will require remedial action.

Project History:
Large diameter sewers are usually made of concrete. This project will identify and schedule concrete sewers requiring remedial action.

Project Description:
The ongoing corrosion inspection and TV inspection programs will identify additional reaches of concrete pipe that will need some level of remedial action. This information will be used to identify and schedule needed projects.

Project Location:
Locations throughout the District.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$9,000
Construction	07/01/2013	06/17/2022	$0
		Total:	**$9,000**

Estimated expenditures this FY are: **$1,000**
Anticipated Allocations this FY are: **$1,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Concrete Pipe Renovation Program / 1
Project Number/Filename: pCS22 / con_co
Project Manager/% Expansion: Mestetsky / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	1,000	1,000	1,000	1,000	1,000	1,000
C. Authorized this Year	1,000	1,000	1,000	1,000	1,000	1,000
D. Estimated Expenditures	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)
E. Estimated Carry-over	0	0	0	0	0	0

Survey Monument Installation Project

Project Manager, Department/Division:
Greg St. John, Engineering/Environmental Services

Project Purpose:
This project will provide resources necessary to fulfill Survey's professional and legal obligation to reference and replace survey monuments that are destroyed during the construction process.

Project History:
Sewer renovation projects frequently remove survey monuments either because the monument lies directly in the path of the new sewer or in the pavement restoration zone. The survey monument installations will be throughout the District service area wherever sewer renovation projects have been completed. Survey monuments must be replaced according to California law (§8771 Business and Professions Code).

Project Description:
The current project scope of work consists of the installation of survey monuments that were removed during sewer renovation. This project will allow Survey staff to work with a contractor to restore the required survey monuments.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	10/05/2012	06/30/2022	$500,700
		Total:	**$500,700**

Estimated expenditures this FY are: **$50,000**
Anticipated Allocations this FY are: **$50,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Survey Monument Installation / 1
Project Number/Filename: 8417 / survey_monument
Project Manager/% Expansion: St. John / 0

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	50,000	50,000	50,000	0	0
B. Anticipated Allocations	50,000	50,000	50,000	0	50,000	50,000
C. Authorized this Year	50,000	100,000	100,000	50,000	50,000	50,000
D. Estimated Expenditures	(0)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)
E. Estimated Carry-over	50,000	50,000	50,000	0	0	0

Collection System Modeling Upgrade

Project Manager, Department/Division:
Justin Waples, Engineering/Environmental Services

Project Purpose:
Implement and calibrate a hydraulically dynamic model of the Collection System by acquiring a commercially available modeling platform.

Project History:
The State Water Resources Control Board requires each wastewater collection system agency to assess current and future capacity requirements for collection system facilities. Present commercially-available hydraulic models have little in common with the District's existing hydraulic model, which is a stand-alone static snapshot and has limited modeling capabilities and limited future service life.

Project Description:
The District has obtained and is migrating to InfoWorks ICM (by Innovyze) software, which is a commercial, hydraulically dynamic modeling platform that is widely used by the wastewater industry. Work will include importing pipe and structure feature data for a defined trunk system; verifying gate and stop log positions at junction structures; conducting flow monitoring over the wet season to calibrate the model; continued importation of pipe feature data for the main line system

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$951,100
Design	-	-	$0
Construction	07/01/2012	06/30/2018	$0
		Total:	**$951,100**

Estimated expenditures this FY are: **$250,000**
Anticipated Allocations this FY are: **$250,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Collection System Modeling Upgrade 12-13 thru 17-18 / 2
Project Number/Filename: 8418 / cs_model
Project Manager/% Expansion: Waples / 0

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	4,000	4,000	4,000	0	0
B. Anticipated Allocations	5,000	250,000	250,000	246,000	100,000	100,000
C. Authorized this Year	5,000	254,000	254,000	250,000	100,000	100,000
D. Estimated Expenditures	(1,000)	(250,000)	(250,000)	(250,000)	(100,000)	(100,000)
E. Estimated Carry-over	4,000	4,000	4,000	0	0	0

Collection System Planning

Project Manager, Department/Division:
Justin Waples, Engineering/Environmental Services

Project Purpose:
To identify, evaluate, and schedule short and long-term sewer improvement projects and to provide design flow rates for major facility plans.

Project History:
Staff performs on-going Collection System Planning and project priority analyses to ensure that District goals for collection system performance are met.

Project Description:
Collection System Planning studies provide the basis for improvements to the District's sewer system and flow rates for facility plans. Studies focus on Local Capacity Studies, Collection System Database Management, Flow Rates for Facility Plans, and Special Studies. This project also provides funding for small scale flow monitoring studies and technology trials and assessments and pilot studies.

Project Location:
Throughout the collection system.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$1,400,000
Design	-	-	$0
Construction	07/01/2013	06/17/2023	$0
		Total:	**$1,400,000**

Estimated expenditures this FY are: **$140,000**
Anticipated Allocations this FY are: **$120,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Collection System Planning - FY2013-14 to 2022-23 / 2
Project Number/Filename: 8419 / CS_PlanLT
Project Manager/% Expansion: Waples / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	60,000	40,000	20,000	0	0
B. Anticipated Allocations	200,000	120,000	120,000	120,000	140,000	140,000
C. Authorized this Year	200,000	180,000	160,000	140,000	140,000	140,000
D. Estimated Expenditures	(140,000)	(140,000)	(140,000)	(140,000)	(140,000)	(140,000)
E. Estimated Carry-over	60,000	40,000	20,000	0	0	0

Force Main Assessment

Project Manager, Department/Division:
Justin Waples, Engineering/Environmental Services

Project Purpose:
To assess and document the condition of force mains.

Project History:
The District owns or operates 19 pumping stations (PS), which pump flow into a series of force mains.

In 2013, the District developed a Force Main Asset Management Plan. This documented the force main inventory, estimated the replacement cost, identified condition assessment methods and failure modes, determined the consequence of failure of the force mains, and the likelihood of failure based on existing information. This was used to determine the risk of the assets which will be used as triggers for further condition assessments and prioritization of capital projects for rehabilitation or replacement.

Project Description:
The District will inspect the condition of force mains, with consultant assistance if necessary. The District may conduct a feasibility study for installing launching platforms and cleaning junctions at pump stations and force mains, and conduct preliminary investigations on the integrity and remaining service lives of force mains.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$304,800
Design	-	-	$0
Construction	07/01/2009	06/30/2016	$0
		Total:	**$304,800**

Estimated expenditures this FY are: **$90,000**
Anticipated Allocations this FY are: **$67,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Forcemain Assessment / 2
Project Number/Filename: 5993 / FM_assessment
Project Manager/% Expansion: Waples / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	47,000	23,000	0	0	0
B. Anticipated Allocations	127,000	26,000	67,000	85,000	0	0
C. Authorized this Year	127,000	73,000	90,000	85,000	0	0
D. Estimated Expenditures	(80,000)	(50,000)	(90,000)	(85,000)	0	0
E. Estimated Carry-over	47,000	23,000	0	0	0	0

Manhole Remote Level Monitoring

Project Manager, Department/Division:
Justin Waples, Engineering/Environmental Services

Project Description:
The District has approximately 30,000 active manhole structures throughout the service area. Some of these manholes are in remote areas where an overflow may not be detected for weeks, or in environmentally sensitive areas where an overflow would cause significant harm to creeks or reservoirs.

This project will include the identification and modification of manholes with the installation of remote level monitoring products. The remote monitoring product will alert dispatch or on-call crew members via cell phone of a potential overflow or stoppage event. The early notification will allow crews to respond more quickly, reducing impacts to the environment, potential fines, and District liability.

Project Location:
Throughout the service area

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2009	10/01/2009	$0
Design	10/01/2009	07/01/2010	$83,300
Construction	07/01/2010	06/30/2015	$267,400
		Total:	**$350,700**

Estimated expenditures this FY are: **$120,000**
Anticipated Allocations this FY are: **$25,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Manhole Remote Level Monitoring / 2
Project Number/Filename: 5962 / manhole_rem_mon
Project Manager/% Expansion: Waples / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	119,000	95,000	0	0	0
B. Anticipated Allocations	250,000	76,000	25,000	0	0	0
C. Authorized this Year	250,000	195,000	120,000	0	0	0
D. Estimated Expenditures	(131,000)	(100,000)	(120,000)	0	0	0
E. Estimated Carry-over	119,000	95,000	0	0	0	0

Contractual Assessment Districts

Project Manager, Department/Division:
Russell Leavitt, Engineering/Environmental Services

Project Purpose:
The District developed a Contractual Assessment District (CAD) Program to provide a financing mechanism for the extension of public sewers into areas which are currently served by septic tanks.

Project History:
In certain instances, the cost to extend public sewers into an area serviced by septic tanks can be an extreme financial burden for one owner or even a small group of owners. The District developed the CAD Program to address this burden. The CAD process provides a means to finance the cost of sewer improvements over time at a fixed interest rate. The CAD assessments are placed on the customers' property tax bills each year until the entire amount is repaid to the District.

Project Description:
A number of CADs will likely be proposed during the budget year.

Project Location:
To be determined. CADs are currently being considered in neighborhoods in Alamo, Danville, Lafayette and Orinda.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	07/01/2011	06/30/2020	$4,200,000
		Total:	**$4,200,000**

Estimated expenditures this FY are: **$200,000**
Anticipated Allocations this FY are: **$750,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Contractual Assessment Districts / 3
Project Number/Filename: 8402 / CAD
Project Manager/% Expansion: Leavitt / 0

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
A. Current Carry-over	0	(335,000)	(835,000)	(835,000)	(285,000)	0
B. Anticipated Allocations	165,000	0	500,000	750,000	785,000	500,000
C. Authorized this Year	165,000	(335,000)	(335,000)	(85,000)	500,000	500,000
D. Estimated Expenditures	(500,000)	(500,000)	(500,000)	(200,000)	(500,000)	(500,000)
E. Estimated Carry-over	(335,000)	(835,000)	(835,000)	(285,000)	0	0

2014-15 Development Sewerage

Project Manager, Department/Division:
Tom Godsey, Engineering/Environmental Services

Project Purpose:
This project provides for appropriate capitalization of District force account labor and other expenses for planning, design, and construction of developer installed and contributed main sewer facilities.

Project Description:
The District requires property owners to pay for the main sewers needed to serve their property. Where sewers are designed and installed by developers or other private parties, District planning, plan review, right-of-way, inspection and record drawing/mapping effort is required to ensure that contributed sewers meet the District's Standard Specifications for Design and Construction. These activities are capitalized under this project. A portion of the revenue collected for plan review, right-of-way, and inspection is credited to the Sewer Construction Fund and offsets some of the expenditures made under this capital project.

Project Location:
Wherever development occurs

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$553,000
Design	-	-	$923,000
Construction	07/01/2013	06/30/2018	$2,005,000
		Total:	**$3,481,000**

Estimated expenditures this FY are: **$700,000**
Anticipated Allocations this FY are: **$700,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Development Sewerage - FY 2013-14 thru 17-18 / 3
Project Number/Filename: 8420 / devt sewer
Project Manager/% Expansion: Godsey / 100

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	681,000	700,000	700,000	700,000	700,000	0
C. Authorized this Year	681,000	700,000	700,000	700,000	700,000	0
D. Estimated Expenditures	(681,000)	(700,000)	(700,000)	(700,000)	(700,000)	0
E. Estimated Carry-over	0	0	0	0	0	0

Trunk Sewer Capacity Expansion Program

Project Manager, Department/Division:
Sasha Mestetsky, Engineering/Capital Projects

Project Purpose:
To achieve the Collection System Program goal of reducing sanitary sewer overflows by increasing the capacity of trunk sewers to accommodate planned growth by the municipalities served by CCCSD and repairing any structural deficiencies in the District's trunk sewer system (pipelines between 12-inches and 24-inches in diameter).

Project History:
In 1986, the Wastewater Collection System Master Plan identified and prioritized trunk sewer capacity deficiencies. Since then, a significant investment in the highest priority projects have been completed. An update of the Collection System Master Plan was completed in March 2010 and the program was modified to reflect the new priorities established by the Master Plan Update.

Project Description:
Under this program capacity needs will be reassessed and projects throughout the District's service area prioritized. The next capacity project is scheduled to take place in the Grayson Creek area in Pleasant Hill during fiscal year 2013-14 and 2014-15. Specific project descriptions are included on the following pages.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	07/01/2012	06/17/2024	$9,000
		Total:	**$9,000**

Estimated expenditures this FY are: **$1,000**
Anticipated Allocations this FY are: **$1,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Trunk Sewer Expansion Program / 3
Project Number/Filename: pCS33 / trunk
Project Manager/% Expansion: Mestetsky / 0

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	1,000	0	1,000	1,000	1,000	1,000
C. Authorized this Year	1,000	0	1,000	1,000	1,000	1,000
D. Estimated Expenditures	(1,000)	0	(1,000)	(1,000)	(1,000)	(1,000)
E. Estimated Carry-over	0	0	0	0	0	0

Pleasant Hill – Grayson Creek Trunk Sewer

Project Manager, Department/Division:
Nancy Molina, Engineering/Capital Projects

Project Description:
The Collection System Master Plan 2010 Update analyzed the District's entire sewer system using an updated ArcSNAP hydraulic model. The wet weather design flows to the sewers in this project corridor were calculated at 130% to 270% of full pipe capacity. The wet weather capacity-deficient sewers includes a 12-inch pipe that runs along Mercury Way from Pleasant Hill Rd. and connects into a 15-inch sewer that runs parallel to Grayson Creek to Milburn Dr.

The recommended project involves installing approximately 12,000 feet of 15-, 18-, and 24-inch relief sewers and diverting the sewage away from the existing wet weather capacity-deficient sewers. The relief sewer alignment is within city streets and extends from Pleasant Hill Rd. along Westover Dr., then Maureen Ln, Lucille Lane, and Kathleen Drive. The relief sewer will connect to a 36-inch trunk sewer at Kathleen Dr. and Ardith Lane. The City of Pleasant Hill expects to receive grant funding for paving. The District may need to include replacement of additional sewer lines to this project to avoid work in the proposed paving areas.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	07/01/2012	04/01/2014	$381,000
Construction	04/01/2014	06/30/2017	$6,100,000
		Total:	**$6,481,000**

Estimated expenditures this FY are: **$800,000**
Anticipated Allocations this FY are: **$5,100,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Pleasant Hill - Grayson Creek Trunk / 3
Project Number/Filename: 8412 / trunk_Ph_graysoncrk
Project Manager/% Expansion: Molina / 0

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	119,000	219,000	4,519,000	100,000	0
B. Anticipated Allocations	500,000	300,000	5,100,000	581,000	0	0
C. Authorized this Year	500,000	419,000	5,319,000	5,100,000	100,000	0
D. Estimated Expenditures	(381,000)	(200,000)	(800,000)	(5,000,000)	(100,000)	0
E. Estimated Carry-over	119,000	219,000	4,519,000	100,000	0	0

Miscellaneous Force Main Improvements

Project Manager, Department/Division:
Sasha Mestetsky, Engineering/Capital Projects

Project Purpose:
Install improvements to force main to allow for a condition inspection/assessment and future cleaning.

Project History:
The District maintains 16 public owned pump stations with almost 21 miles of force mains ranging in size from 4 inches to 30 inches. Due to physical limitations, inspection for force main condition has been limited to TV inspection of short reaches at the downstream end. No cleaning of force main has been performed.

Project Description:
Evaluate and install, if practical, the ability to inspect, assess and clean force mains.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2013	07/01/2016	$0
Design	-	-	$0
Construction	07/01/2016	06/30/2017	$40,000
		Total:	**$40,000**

Estimated expenditures this FY are: **$0**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Misc. Force Main Improvements / 4
Project Number/Filename: pCS34 / misc_force_main
Project Manager/% Expansion: Mestetsky / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	0	0	40,000	0	0
B. Anticipated Allocations	0	0	40,000	0	0	0
C. Authorized this Year	0	0	40,000	40,000	0	0
D. Estimated Expenditures	0	0	0	(40,000)	0	0
E. Estimated Carry-over	0	0	40,000	0	0	0

Pumping Stations Hazard Identification and Remediation

Project Manager, Department/Division:
Andrew Antkowiak, Engineering/Capital Projects

Project Purpose:
Increase personnel safety by identifying and reducing exposure to hazardous materials within District's pumping stations.

Project History:
Existing pumping stations may require some renovation in the near future or may require urgent work to maintain operations. Knowledge of materials such as asbestos in pipe insulation, roofing materials, or lead paint ahead of time allows District staff, the design engineer, or the contractor to properly prepare and equip themselves with Personal Protective Equipment (PPE), monitors, or plan for medical surveillance.

Project Description:
This project will investigate the presence of hazardous materials requiring abatement at pumping stations and will develop a plan for remediation efforts to reduce the potential for exposure within the plant to hazardous materials where feasible.

Project Location:
Pumping stations throughout the District service area.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	12/01/2012	12/01/2014	$30,000
Construction	12/01/2014	06/30/2015	$0
		Total:	**$30,000**

Estimated expenditures this FY are: **$5,000**
Anticipated Allocations this FY are: **$5,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Pump Station Hazard Identification / 4
Project Number/Filename: pCS31 / ps hazard ID
Project Manager/% Expansion: Antkowiak / 0

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	20,000	0	0	0	0
B. Anticipated Allocations	25,000	0	5,000	0	0	0
C. Authorized this Year	25,000	20,000	5,000	0	0	0
D. Estimated Expenditures	(5,000)	(20,000)	(5,000)	0	0	0
E. Estimated Carry-over	20,000	0	0	0	0	0

Pumping Station Arc Flash Study

Project Manager, Department/Division:
Edgar Lopez, Engineering/Capital Projects

Project Purpose:
Evaluate all pumping station electrical systems, provide an Arc Flash Hazard Analysis Study per the current NFPA 70E Standard for Electrical Safety, and related codes.

Project History:
The lifeline of the pumping stations electrical system is the feeders from PG&E to the main switchgear and breakers. Most of the pumping stations are equipped with backup generators, including automatic transfer when PGE power is not available. Loss or failure of these power conveyances or transfer switches would disrupt the pumping station electrical system and more importantly, pose a safety hazard to Operations staff.

Project Description:
The scope of work will include the following:

- Short –Circuit, Protective coordination, Load-Flow and Arc Flash Analysis Study per requirements outlined in the current version of NFPA 70E.
- The arc flash analysis shall be performed according to the IEEE standard 1584.
- The Study shall be done using SKM Systems Analysis Power Tools for Windows (PTW) software program.
- Arc–flash labeling of the electrical equipment.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2014	06/30/2015	$100,000
Design	-	-	$0
Construction	-	-	$0
		Total:	**$100,000**

Estimated expenditures this FY are: **$100,000**
Anticipated Allocations this FY are: **$100,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Pumping Station Arc Flash Stdy / 4
Project Number/Filename: pCS36 / PS_arc_flash
Project Manager/% Expansion: Lopez / 0

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	100,000	0	0	0	0	0
C. Authorized this Year	100,000	0	0	0	0	0
D. Estimated Expenditures	(100,000)	0	0	0	0	0
E. Estimated Carry-over	0	0	0	0	0	0

Pumping Stations Equipment and Piping Replacement

Project Manager, Department/Division:
Don Rhoads, Collection System Operations

Project Purpose:
The purpose of this project is to replace or recondition failed and obsolete pumps, piping, valves, and other equipment; to provide for proper emergency response at District pumping stations; to purchase major spare assemblies for various pieces of pumping stations equipment; and to meet new regulatory requirements.

Project Description:
The scope of work for this project includes, as examples, the following:

- Addition of control and isolation valves for shutdown and protection of the stations;
- Revisions to control strategies and equipment response times;
- Possible protections for pumping stations and equipment, if flooded;
- Investigation and installation of "pump around" capabilities;
- Development of emergency response procedures and purchasing equipment;
- Reconditioning of major pieces of equipment to original factory specifications;
- Purchase of large-dollar spare assemblies for major PS equipment;
- Other work or equipment requirements that might be defined by regulators.

Project Location:
All pumping stations

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	07/01/2007	06/30/2017	$782,500
		Total:	**$782,500**

Estimated expenditures this FY are: **$10,000**
Anticipated Allocations this FY are: **$15,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: PS Equip & Piping Repl / 4
Project Number/Filename: 5941 / PS_Equip
Project Manager/% Expansion: Rhoads / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	92,000	117,000	122,000	75,000	0
B. Anticipated Allocations	640,000	100,000	15,000	28,000	0	0
C. Authorized this Year	640,000	192,000	132,000	150,000	75,000	0
D. Estimated Expenditures	(548,000)	(75,000)	(10,000)	(75,000)	(75,000)	0
E. Estimated Carry-over	92,000	117,000	122,000	75,000	0	0

Pumping Stations Master Plan

Project Manager, Department/Division:
Justin Waples, Engineering/Environmental Services

Project Purpose:
To develop a comprehensive strategic plan for improvements to District pumping stations.

Project History:
The District's Pumping Station Master Plan was updated in 1989. Subsequently, various Planning activities associated with Pumping Stations have lacked continuity of strategic goals and have also been wanting in terms of attaining clearly defined objectives, in terms of a whole system approach.

Project Description:
To create a living document for guiding the future management of Pumping Station assets and to provide a road map for methodically integrating pumping station related Planning activities, including but not limited to, Force Main assessment, Hydrogen Sulfide control and Pumping Station Inventory. It will also provide a metric for measuring progress toward the defined goals. A consultant may be required.

Project Location:
Pumping stations throughout the District service area.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$350,000
Design	-	-	$0
Construction	07/01/2012	06/30/2018	$0
		Total:	**$350,000**

Estimated expenditures this FY are: **$80,000**
Anticipated Allocations this FY are: **$85,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Pumping Stations Master Plan / 4
Project Number/Filename: 8408 / ps_master_plan
Project Manager/% Expansion: Waples / 0

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	0	0	5,000	0	5,000
B. Anticipated Allocations	50,000	70,000	85,000	0	55,000	90,000
C. Authorized this Year	50,000	70,000	85,000	5,000	55,000	95,000
D. Estimated Expenditures	(50,000)	(70,000)	(80,000)	(5,000)	(50,000)	(95,000)
E. Estimated Carry-over	0	0	5,000	0	5,000	0

Pumping Station Safety and Security Improvements

Project Manager, Department/Division:
Brad Leidecker, Engineering/Capital Projects

Project Purpose:
The project will improve the safety and security of select pumping stations by adding or replacing surveillance, fire alarm and intrusion alarm systems.

Project History:
One of the many responsibilities of the District's safety programs is to address and support solutions for safety and security concerns identified by operations or maintenance personnel.

District pumping station operations staff has identified safety and security concerns at critical pumping stations. These stations have obsolete, inoperable or nonexistent video surveillance, fire alarm and intrusion alarm systems. A lack of pumping station security, particularly at remote stations, results in liability exposure to the District. Many of the existing fire alarm systems do not meet current fire code and are integrated with the intrusion alarm systems.

Project Description:
This project will add new or replace existing video surveillance, fire alarm and/or intrusion alarm systems at the highest priority pumping stations.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2011	05/01/2012	$0
Design	05/01/2012	02/01/2014	$0
Construction	02/01/2014	06/30/2015	$305,000
		Total:	**$305,000**

Estimated expenditures this FY are: **$245,000**
Anticipated Allocations this FY are: **$245,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Pump Station Security Improvements / 4
Project Number/Filename: 8406 / PS_Security_Imprvs
Project Manager/% Expansion: Leidecker / 0

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	0	0	60,000	245,000	0	0
C. Authorized this Year	0	0	60,000	245,000	0	0
D. Estimated Expenditures	0	0	(60,000)	(245,000)	0	0
E. Estimated Carry-over	0	0	0	0	0	0

GENERAL IMPROVEMENTS PROGRAM

TABLE OF CONTENTS

GENERAL IMPROVEMENTS PROGRAM

Table GI-1 presents project listings and detailed budget information. Detailed project information, schedules, and cash flow tables are presented in individual project sheets.

OVERVIEW

The General Improvements Program is primarily concerned with the property, administrative buildings, and equipment needs of the District.

Vehicles and Equipment Acquisition (Tab 1)

The Vehicles and Equipment subprogram comprises the items budgeted and purchased under the annual District Equipment Budget, which is included in this document. The Capital Improvement Budget includes an allowance for the equipment budget. Specific equipment items are approved through the annual budget process.

Management Information Systems (Tab 2)

The Management Information Systems subprogram reflects the importance of information technology in the daily operation of the District. The District has developed an Information Technology Master Plan which envisions implementing specific improvements and extends five years into the future. An allowance to meet anticipated future information technology needs has been included in the ten-year Capital Improvement Plan. Funding for upgrades of the District's GDI systems is included in the CIB.

Projects (Tab 3)

The Projects subprogram includes improvements to the Headquarters Office Building (HOB) and other properties, CIB preparation, easement and right-of-way acquisition, seismic upgrades of certain buildings, and projects related to District property improvements.

Asset Management Plan (Tab 4)

Effective with the 2014-15 CIB, a project for the District's Asset Management Plan, to include Treatment Plant, Collection System, General Improvements, and Recycled Water assets has been created as a separate sub-program in the General Improvements Program. As the Asset Management Plan is developed, it will be included in this section in the same way that the Equipment and IT Plans are included in the Capital Improvement Budget.

Table GI-1: General Improvements Subprogram / Project List

Subprogram / Project No. / Project Title			Estimated Total Project Expenditures	Estimated Expenditures To 06/30/14	Anticipated Allocations FY 2014-15	Estimated Expenditures FY 2014-15
1	Vehicles & Equipment Acquisition					
	8515	Vehicles and Equipment Acquisition	617,200	0	617,200	617,200
	9999	Capital Project Clearing	38,300	32,500	5,800	2,800
		Subprogram Total	655,500	32,500	623,500	620,000
2	Management Information Systems					
	none	Information Technology Development	5,500,000	0	1,000,000	1,000,000
	8227	GDI - Treatment Plant	522,300	372,300	0	150,000
	8232	GDI-SMMS Replacement	1,001,400	701,400	300,000	300,000
		Subprogram Total	7,023,700	1,073,700	1,300,000	1,450,000
3	Projects					
	8237	Buffer and Rental Property Improvements	279,000	30,000	0	39,000
	8236	District Easement Acquisition	740,000	75,000	65,000	65,000
	pGI05	POD Office Improvements	490,000	0	100,000	50,000
	8230	Capital Legal Services	407,900	127,900	0	70,000
	8217	Capital Improvement Plan and Budget	1,018,000	818,800	100,000	100,000
	8233	CSOD Facilities Improvements	456,900	166,900	0	30,000
	8223	District Property Safety Improvements	279,600	259,600	20,000	20,000
	8207	General Security Access	103,000	58,000	43,000	45,000
	8234	HOB Improvements	944,500	319,500	100,000	50,000
	8226	Seismic Improvements for HOB	5,940,900	5,939,900	0	1,000
		Subprogram Total	10,695,600	7,795,600	463,000	495,000
4	Asset Management Plan					
	8238	Asset Management Program Development	3,540,000	0	1,090,000	700,000
		Subprogram Total	3,540,000	0	1,090,000	700,000
		Program Total	21,914,800	8,901,800	3,476,500	3,265,000

Vehicles and Equipment Acquisition – 2014-15

Project Manager, Department/Division:
Amal Lyon, Administrative/Finance and Accounting

Project Purpose:
To provide the District with safe and cost-effective vehicles and equipment.

Project Description:
This is the District's 2014-15 capital project for purchase of vehicles and equipment.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	07/01/2014	06/30/2015	$617,200
		Total:	**$619,000**

Estimated expenditures this FY are: **$617,200**
Anticipated Allocations this FY are: **$617,200**

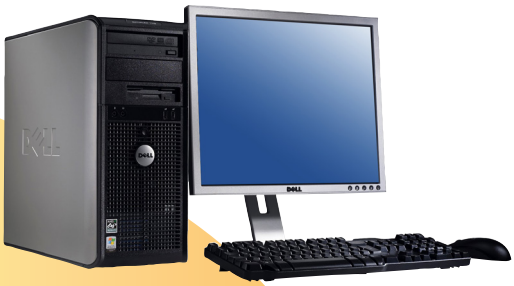
Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Vehicles & Equipment Acquisition 2014-15 / 1
Project Number/Filename: 8515 / veh_equip15
Project Manager/% Expansion: Lyon / 0

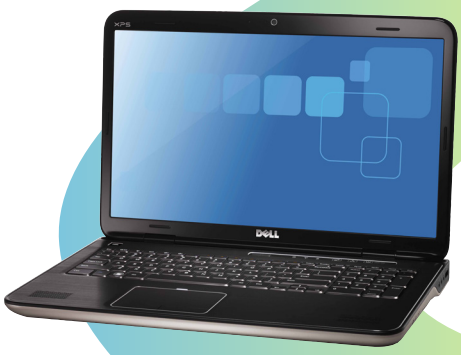
	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	617,200	0	0	0	0	0
C. Authorized this Year	617,200	0	0	0	0	0
D. Estimated Expenditures	(617,200)	0	0	0	0	0
E. Estimated Carry-over	0	0	0	0	0	0

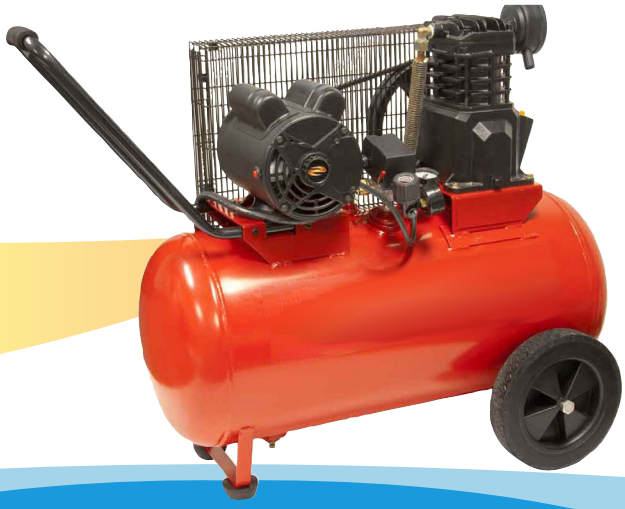
Central Contra Costa Sanitary District

Protecting Public Health and the Environment



2014-2015 EQUIPMENT BUDGET





1127B-3/14

Central Contra Costa Sanitary District
Protecting public health and the environment
5019 Imhoff Place, Martinez, CA 94553-4392

2014 - 2015 EQUIPMENT BUDGET

Introduction/Routine Procedures: The following tables show items anticipated to be purchased via the 2014 - 2015 Equipment Budget. In addition to the specific purchases, a $75,000 contingency is budgeted for unanticipated needs. When the contingency budget is utilized, a memo is sent to the General Manager who can approve purchases up to $75,000. Equipment purchased over $75,000 will be submitted for Board approval as a part of the Capital Improvement Budget.

Equipment Item Overrun: When the actual cost of an equipment budget item is more than the budgeted amount, the following guidelines should be observed:

- If the overrun does not exceed $5,000 or 10%, whichever is greater, and there are sufficient funds in the department's Equipment Budget line account to cover the overrun, then the purchase can proceed. An informational memo should be sent to the General Manager in these cases, to keep him/her aware of budget variances. When Purchasing receives their copy of the memo, the purchase may proceed.

- If the overrun exceeds the above criteria, a contingency memo, or position paper will be required. If the dollar overrun is less than $75,000, the additional funds may be requested through contingency. If the dollar overrun is more than $75,000, a position paper is required.

Substitutions: Occasionally, the need to substitute a functionally different equipment item for a previously authorized Equipment Budgeted item arises. The following procedure should be followed in these instances:

- Situation One: Where a substitution is necessary, but the total does not exceed the authorized Equipment Budgeted amount, a memo will be sent to the General Manager detailing the need for the substitution.

- Situation Two: If the substitution or an unanticipated cost increase will result in the purchase exceeding the authorized Equipment Budgeted amount, a contingency memo (up to $75,000) should be sent to the General Manager outlining the need for substitution and/or the additional amount from contingency that is required for purchase.

  In both situations, if the substitution is warranted, the General Manager will approve the memo, and Purchasing can then proceed with the procurement process after their copy of the memo is received. Changes to authorized Equipment Budgeted purchases exceeding $75,000 additional cost must be requested by a position paper to the Board.

Summarized below is a comparison of the 2014-2015 Equipment Budget with the approved budgets of the four prior years:

	2014-2015	2013-2014	2012-2013	2011-2012	2010-2011
Administrative	0	8,000	0	0	30,000
Engineering	9,000	0	0	34,867	25,000
Collection System Operations	32,500	74,000	97,050	0	0
Plant Operations	365,700	56,400	273,604	185,063	6,500
Subtotal	407,200	138,400	370,654	219,930	61,500
Vehicles					
New	0	0	0	0	290,000
Replacement	135,000	407,000	486,000	619,000	35,200
Rodding Truck orded April 2012		**241,000**			
Subtotal	135,000	648,000	486,000	619,000	325,200
Equipment Request Total	542,200	786,400	856,654	838,930	386,700
Contingency	75,000	100,000	100,000	60,000	60,000
District Total	**$617,200**	**$886,400**	**$956,654**	**$898,930**	**$446,700**
Contingency as a % of Total Budget	12.15%	11.28%	10.45%	6.67%	13.43%

CENTRAL CONTRA COSTA SANITARY DISTRICT
2014– 2015 EQUIPMENT BUDGET
ENGINEERING DEPARTMENT

Quantity	Item Description	Replacement	Productivity Office	Productivity Field	Safety	Total
ENVIRONMENTAL SERVICES						
1	Field Data Collector	9,000				9,000
	Engineering Total	9,000				9,000

CENTRAL CONTRA COSTA SANITARY DISTRICT
2014 – 2015 EQUIPMENT BUDGET
COLLECTION SYSTEM OPERATIONS DEPARTMENT

Quantity	Item Description	Replacement	Productivity Office	Productivity Field	Safety	Total
	FIELD OPERATIONS					
1	Sewer Line Rapid Assessment Tool			21,500		21,500
1	Multi-Wire TV Cable			11,000		11,000
	Subtotal			32,500		32,500
	CSO Total			32,500		32,500

CENTRAL CONTRA COSTA SANITARY DISTRICT
2014– 2015 EQUIPMENT BUDGET
PLANT OPERATIONS DEPARTMENT

Quantity	Item Description	Replacement	Productivity Office	Productivity Field	Safety	Total
	OPERATIONS					
1	All-Weather Refrigerated Auto Sampler	7,800				7,800
1	Ion Chromatography System		122,400			122,400
1	Microbiological Lab Incubator	5,100				5,100
1	Undercounter Flask Scrubber with accessories	12,000				12,000
1	Gas Chromatograph – Mass Spectrometer with Data System	99,500				99,500
1	Utility Pickup with Hand Controls				11,100	11,100
	Subtotal	124,400	122,400		11,100	257,900
	MAINTENANCE					
2	Remote Racking System, Remote Switch Actuator, and Remote Switch Operator				60,400	60,400
1	Total Hydrocarbon Analyzer	15,000				15,000
1	Fluid Handling System w/ Spill Containment			14,500		14,500
1	Horizontal Band Saw	17,900				17,900
	Subtotal	32,900		14,500	60,400	107,800
	POD Total	157,300	122,400	14,500	71,500	365,700

CENTRAL CONTRA COSTA SANITARY DISTRICT
2014 – 2015 EQUIPMENT BUDGET
VEHICLES

Quantity	Item Description	Replacement	Productivity Office	Productivity Field	Safety	Total
FLEET SERVICES						
3	Mid-Size 2 X 4 Trucks	100,500				100,500
1	Half-Ton 2 X 4 Truck	34,500				34,500
4	Vehicle Total	135,000				135,000

Capital Project Clearing Account

Project Manager, Department/Division:
Thea Vassallo, Administrative/Finance and Accounting

Project Purpose:
Provide Accounting with a mechanism within the Capital Improvement Budget to record transactions for projects that are currently not available.

Project Description:
The District's capital project clearing account used in Accounting for various reasons. Transactions are typically entered in this account under the following circumstances:

- During payroll timesheet entry when a capital project has not yet opened, has been closed, or the project number is transposed and cannot be identified at that time.
- To record purchases under projects that are not opened yet. For instance, purchases under the following year's equipment budget.
- To record unanticipated additional charges to closed projects.

The account is reconciled monthly, and transactions are re-classified to the appropriate project or asset accounts.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2008	07/01/2009	$0
Design	-	-	$0
Construction	07/01/2009	06/17/2019	$38,300
		Total:	**$38,300**

Estimated expenditures this FY are: **$2,800**
Anticipated Allocations this FY are: **$5,800**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Cap Proj Clearing / 1
Project Number/Filename: 9999 / cap_proj_clearing
Project Manager/% Expansion: Vassallo / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	0	0	3,000	0	0
B. Anticipated Allocations	10,000	22,000	5,800	1,000	1,000	1,000
C. Authorized this Year	10,000	22,000	0	1,000	1,000	1,000
D. Estimated Expenditures	(10,000)	22,000	(2,800)	(4,000)	(1,000)	(1,000)
E. Estimated Carry-over	0	0	0	0	0	0

Note: This project account is zeroed out each fiscal year.

GDI – Treatment Plant

Project Manager, Department/Division:
Carolyn Knight, Engineering/Capital Projects

Project Purpose:
Improve the effectiveness of treatment plant operations and maintenance and facilitate design of treatment plant projects by providing an interactive map of treatment plant facilities linked to various existing and proposed data sets.

Project History:
The successful implementation of the collection system graphics device interface (GDI) has indicated that a similar implementation of a GDI for the treatment plant could provide faster and more efficient access to existing and/or hard to access asset data. A pilot treatment plant GDI has been completed, and is currently being used by staff.

Project Description:
Implement a geographically based asset management tool for the treatment plant. The Treatment Plant GDI will be modeled on the collection system GDI; mirroring the graphic interface and functionality but accessing and delivering treatment plant related data sets.

Project Location:
Treatment Plant

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2008	09/01/2008	$0
Design	09/01/2008	07/01/2009	$397,300
Construction	07/01/2009	06/30/2015	$125,000
		Total:	**$522,300**

Estimated expenditures this FY are: **$150,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: GDI - Treatment Plant / 2
Project Number/Filename: 8227 / GDI_tp
Project Manager/% Expansion: Antkowiak / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	278,000	153,000	0	0	0
B. Anticipated Allocations	500,000	25,000	0	0	0	0
C. Authorized this Year	500,000	303,000	153,000	0	0	0
D. Estimated Expenditures	(222,000)	(150,000)	(150,000)	0	0	0
E. Estimated Carry-over	278,000	153,000	3,000	0	0	0

GDI-SMMS Replacement

Project Manager, Department/Division:
Carolyn Knight, Engineering/Capital Projects

Project Purpose:
Improve the effectiveness of the collection system operations and maintenance.

Project History:
Various computer-based management information systems have substantially improved the ability of District staff to manage the collection system. The disparate software programs that these systems operate on have kept staff from further improving operations by integrating these systems. The alternative to consolidating these systems is to spend significant sums upgrading the different systems.

Project Description:
Update and integrate the District's GDI software and implement GPS capability. Detailed specifications will be developed for hardware, software, programming, and training to provide a single interface, database, underlying map and modular application functionality to the asset management functions that support collection system maintenance, assessment, and renovation.

Project Location:
District-wide

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	07/01/2010	07/01/2011	$593,200
Construction	07/01/2011	06/30/2015	$408,200
		Total:	**$1,001,400**

Estimated expenditures this FY are: **$300,000**
Anticipated Allocations this FY are: **$300,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: GDI-SMMS Replacement / 2
Project Number/Filename: 8232 / GDI-SMMS_repl
Project Manager/% Expansion: Knight / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	450,000	0	0	0	0
B. Anticipated Allocations	701,000	0	300,000	0	0	0
C. Authorized this Year	701,000	450,000	300,000	0	0	0
D. Estimated Expenditures	(251,000)	(450,000)	(300,000)	0	0	0
E. Estimated Carry-over	450,000	0	0	0	0	0

Information Technology Development

Project Manager, Department/Division:
Roy Li, Administrative/Information Systems

Project Purpose:
An Information Technology Development Plan was developed by Information Technology staff to centralize efforts and funding in the development of computer and telecommunication technology within the District.

Project Description:
Due to competing funding and staffing priorities, the Information Technology Development Plan expenditure requests are being spread over more than a three-year period. The prioritization of these expenditures will be revisited on an ongoing basis and some adjustments may be made to allow funding of higher priority projects. See the following document for specific work planned.

Project Location:
District-wide

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	07/01/2014	06/30/2024	$5,500,000
		Total:	**$5,500,000**

Estimated expenditures this FY are: **$1,000,000**
Anticipated Allocations this FY are: **$1,000,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Information Technology Development / 2
Project Number/Filename: none / INF_tech
Project Manager/% Expansion: Li / 0

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	1,000,000	500,000	500,000	500,000	500,000	500,000
C. Authorized this Year	1,000,000	500,000	500,000	500,000	500,000	500,000
D. Estimated Expenditures	(1,000,000)	(500,000)	(500,000)	(500,000)	(500,000)	(500,000)
E. Estimated Carry-over	0	0	0	0	0	0

Central Contra Costa Sanitary District

INFORMATION TECHNOLOGY DEVELOPMENT

CAPITAL IMPROVEMENT BUDGET PLAN
2014-15

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The Information Technology Development CIB Plan provides direction and flexibility to meet the District's future information technology needs. Each year, District staff submits project recommendations, requests and write-ups to the Information Technology Administrator. The Management team gives their final review of the proposed CIB and IT projects, providing revisions and recommendations prior to appearing before the Capital Projects Committee for review and the Board of Directors for final approval.

The Information Technology Development CIB Plan is developed to provide funding for IT projects in one or more of the following areas:

- PC hardware and software
- District and specialized networks, systems and software applications
- Network infrastructure, security and reliability
- Data storage, backups and disaster recovery
- Internet and Intranet development
- Wireless access
- Telecommunications improvements
- Information Technology customer service and support
- Cost savings, power conservation & green alternatives

The District's Information Technology (IT) Master Plan centralizes efforts in the development of technology within the District. Input for the Master Plan was gathered through survey results, management business needs, project lists, and interviews with IT staff, along with management and departments' focus groups. The Information Technology Development project was created to provide funding for these projects.

2014-2015 IT DEVELOPMENT PLAN
Proposed 2014-15 Project Expenditures

Project Description	In Thousands
1. PC Replacement - Replace approx. 100 PCs and laptops (3 yrs and older) LCD monitors, network & desktop printers	$146
2. Engineering Support – Replace workstations, storage, software	$97
3. POD – MainSaver upgrade and training	$20
4. Source Control Database Development	$20
5. District Server Replication, Backup, and Redundancy	$140
6. Software - Desktop and Server Volume Licensing	$127
7. Replacement of old District network equipments and server	$122
8. Record retention and document management system	$145
9. IT Master Plan - ERP Consultant	$100
10. CSO – Granite XP Inspection systems, wireless IP phones	$63
11. Contingency	$20
Total Proposed Budget	**$1,000**

PROPOSED 2014-2015 PROJECTS SUMMARY

- PC replacements $146
    - Three year life cycle replacement of approximately 100 PCs, 25 laptops, monitors, and printers

- Engineering Support upgrades $97
    - Replacement for GIS workstations, server upgrades, storage capacity improvements, and Survey's training laptop

- POD (Plant) - MainSaver software upgrade $20
    - Software upgrade professional services, HTE interface programming, and training

- Source Control database development $20
    - Continue development of database for additional functionalities, reports and remote access

- District Server replication, backup, redundancy, and configuration $140
    - Local and online data backup systems for server disaster recovery and redundancy
    - Helpdesk redundant server, programming and implementation of systems

- Software – Desktop, server and other software licensing $127
    - 3rd year of 3 year installment for 300 MS Office licenses, 14 Windows server licenses, true-up licenses, and other software licenses
    - Survey's Pointcloud desktop and GIS software

- Replacement of old District network and server equipments $122
    - Replacement of end-of-support Dell PowerEdge servers

- Record retention and document management system $150
    - This is for a new system for District record and retention management, document collaboration, version control, archiving, etc. Covers system costs, implementation, licensing, support and consulting/professional services. This project is dependent on the approved IT Master Plan recommendations regarding its implementation.

- IT Master Plan - ERP Consultant $100
    - Related to IT Master Plan to consolidate applicable business applications, databases and systems. The District will need assistance in the RFP specification development, evaluation, and selection of ERP software.

- CSO – Granite XP Inspection systems, wireless phones $63

- Contingency $20

Buffer and Rental Property Improvements

Project Manager, Department/Division:
Thomas Brightbill, Engineering/Environmental Services

Project Purpose:
Protect and enhance the District's property through additions, improvements, replacements, and extraordinary repairs.

Project History:
The District owns various properties surrounding the Treatment Plant, including the Imhoff Triangle, the Kiewit parcel, 4849 Imhoff and 4737 Imhoff, and others. The Kiewit parcel has served as a buffer zone for the Treatment Plant and has been the site of a clean fill operation for several years. The Imhoff properties also serve as a buffer between the Treatment Plant and nearby neighborhoods, and are used as rental property and to house some District work groups and equipment.

Project Description:
This project will fund needed improvements to the buffer and rental properties, and the surrounding parking lots and grounds.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	01/01/2013	06/30/2022	$279,000
		Total:	**$279,000**

Estimated expenditures this FY are: **$39,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Buffer and Rental Property Improvements / 3
Project Number/Filename: 8237 / buffer_rental_prop
Project Manager/% Expansion: Brightbill / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	60,000	21,000	21,000	66,000	36,000
B. Anticipated Allocations	90,000	0	30,000	75,000	0	0
C. Authorized this Year	90,000	60,000	51,000	96,000	66,000	36,000
D. Estimated Expenditures	(30,000)	(39,000)	(30,000)	(30,000)	(30,000)	(30,000)
E. Estimated Carry-over	60,000	21,000	21,000	66,000	36,000	6,000

Capital Legal Services

Project Manager, Department/Division:
Russell Leavitt, Engineering/Environmental Services

Project Purpose:
Streamline the processing of legal bills.

Project History:
In the past, legal expenses were charged to individual capital projects. This process required extra staff time each month to review legal bills and get approvals from several different project managers.

Project Description:
Capital legal service expenses are no longer charged to individual capital projects. Instead, legal expenses are charged to one capital account with four charge numbers for the four programs. This reduces the amount of time all parties must spend processing the legal bill.

Project Location:
Not applicable

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2013	06/30/2018	$407,900
Design	-	-	$0
Construction	-	-	$0
		Total:	**$407,900**

Estimated expenditures this FY are: **$70,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Capital Legal Services - 2010 to 2018 / 3
Project Number/Filename: 8230 / CapLegal_2010
Project Manager/% Expansion: Leavitt / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	152,000	82,000	12,000	0	0
B. Anticipated Allocations	210,000	0	0	58,000	70,000	70,000
C. Authorized this Year	210,000	152,000	82,000	70,000	70,000	70,000
D. Estimated Expenditures	(58,000)	(70,000)	(70,000)	(70,000)	(70,000)	(70,000)
E. Estimated Carry-over	152,000	82,,000	12,000	0	0	0

Capital Improvement Plan and Budget

Project Manager, Department/Division:
Earlene Millier, Engineering/Environmental Services

Project Purpose:
Provide for the capitalization of the staff time necessary for the data gathering and production of the Capital Improvement Budget and Plan, and for upgrades to the software used for maintaining the capital projects database.

Project History:
Custom software is used to maintain a database to track capital project budget information and produce the annual CIB and CIP. A number of interim reports and cash flow analyses are also produced.

Project Description:
Facility planning and master planning have traditionally been capital activities. It is appropriate that the resources required to produce the District's capital planning document, the CIB/CIP, also be classified as capital expenditures. Staff time charged to this capital project will be mainly from the capital improvement budget coordinator. Other costs include modifications and upgrades to the software used for maintaining the capital projects database and for printing the actual CIB/CIP documents.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2006	06/30/2015	$1,018,800
Design	06/30/2015	01/30/2016	$0
Construction	01/30/2016	06/30/2016	$0
		Total:	**$1,018,800**

Estimated expenditures this FY are: **$100,000**
Anticipated Allocations this FY are: **$100,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Capital Improvement Plan and Budget / 3
Project Number/Filename: 8217 / CIB_CIP
Project Manager/% Expansion: Millier / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	24,000	14,000	14,000	0	0
B. Anticipated Allocations	753,000	80,000	100,000	86,000	0	0
C. Authorized this Year	753,000	104,000	114,000	100,000	0	0
D. Estimated Expenditures	(729,000)	(90,000)	(100,000)	(100,000)	0	0
E. Estimated Carry-over	24,000	14,000	14,000	0	0	0

CSOD Facility Improvements

Project Manager, Department/Division:
Alex Rozul, Collection System Operations

Project Purpose:
Improve the safety, reliability, and maintainability of the Collection System Operations Department facilities in Walnut Creek, including the vehicle maintenance shop.

Project History:
none

Project Description:
This is a multi-year program to construct capital improvements to the CSOD site in Walnut Creek. Projects will include improvements to the vehicle maintenance shop, which was not included in the CSOD Administration, Crew and Warehouse Facility project, pavement repair and renovation, and replacement of the permeable concrete in the middle yard, if needed.

Project Location:
1250 Springbrook Road, Walnut Creek.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$72,000
Construction	01/01/2012	01/01/2022	$384,900
		Total:	**$456,900**

Estimated expenditures this FY are: **$30,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: CSOD Facilities Improvements / 3
Project Number/Filename: 8233 / CSOD_Fac_LT
Project Manager/% Expansion: Rozul / 0

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
A. Current Carry-over	0	100,000	0	70,000	40,000	170,000
B. Anticipated Allocations	100,000	37,000	100,000	0	160,000	0
C. Authorized this Year	100,000	137,000	100,000	70,000	200,000	170,000
D. Estimated Expenditures	0	(137,000)	(30,000)	(30,000)	(30,000)	(30,000)
E. Estimated Carry-over	100,000	0	70,000	40,000	170,000	140,000

District Easement Acquisition

Project Manager and Department/Division:
Thomas Brightbill, Engineering/Environmental Services

Project Purpose:
To perfect or acquire new property land rights for existing or new sanitary sewers that are located on private properties and are not associated with a current capital project for sewer renovation work.

Project History:
As capital projects are designed, sanitary sewer easements may have to be acquired through budgets for those specific projects. This project provides funds for the acquisition of easements for projects where specific funds are not identified in the Capital Improvement Budget.

Project Description:
Easements that may be acquired through this project are:

- Locations where easements need to be purchased for existing sewers
- Sewers that need upgraded easement rights or access rights
- Sewers relocated through other public agency projects
- Outfall Easement Upgrade Project
- Recycled Water Program

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	01/01/2014	01/01/2023	$740,000
		Total:	**$740,000**

Estimated expenditures this FY are: **$65,000**
Anticipated Allocations this FY are: **$65,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: District Easements - FY13-14 thru 22-23 / 3
Project Number/Filename: 8236 / District_Easements
Project Manager/% Expansion: Brightbill / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	0	0	0	0	0
B. Anticipated Allocations	75,000	65,000	75,000	75,000	75,000	75,000
C. Authorized this Year	75,000	65,000	75,000	75,000	75,000	75,000
D. Estimated Expenditures	(75,000)	(65,000)	(75,000)	(75,000)	(75,000)	(75,000)
E. Estimated Carry-over	0	0	0	0	0	0

District Property Safety Improvements

Project Manager, Department/Division:
Thomas Brightbill, Engineering/Environmental Services

Project Purpose:
Implement projects necessary to meet worker health and safety requirements.

Project History:
Urgent safety improvements to District facilities and equipment are triggered by equipment failures, accidents and near misses. Improvements also are made based on results of safety audits and suggestions received by the District's Safety Committee and the various department-level safety teams. The issues addressed in any given year vary widely in scope and location.

Project Description:
This project is a multi-year program to install safety improvements. The project encompasses safety improvements to the District's buildings, surrounding parking lots and grounds, District-owned buffer properties, general use vehicles and equipment, and other safety improvements that are not included in treatment plant or collection system projects.

Project Location:
District-wide

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$67,500
Construction	07/01/2007	06/17/2015	$212,100
		Total:	**$279,600**

Estimated expenditures this FY are: **$20,000**
Anticipated Allocations this FY are: **$20,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: District Property Safety Improvements / 3
Project Number/Filename: 8223 / DistPropSafety
Project Manager/% Expansion: Brightbill / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	19,000	0	0	0	0
B. Anticipated Allocations	219,000	41,000	20,000	0	0	0
C. Authorized this Year	219,000	60,000	20,000	0	0	0
D. Estimated Expenditures	(200,000)	(60,000)	(20,000)	0	0	0
E. Estimated Carry-over	19,000	0	0	0	0	0

General Security and Access

Project Manager, Department/Division:
Thomas Brightbill, Engineering/Environmental Services

Project Purpose:
Improve safety for employees and the general public; meet safety standards; reduce the District's exposure to liability; reduce loss of District's property; and reduce Operations and Maintenance expenses.

Project History:
The District has experienced property losses in the past. Improvements to the security system are continually identified and refined. It is possible that additional security measures for essential public service facilities may be required at some point.

Project Description:
This project includes installing alarm systems, adding gates in the perimeter security fencing, upgrading security cameras, improving general area lighting, fencing and signage.

Project Location:
District properties.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	-	-	$0
Construction	07/01/2007	06/17/2015	$103,000
		Total:	**$103,000**

Estimated expenditures this FY are: **$45,000**
Anticipated Allocations this FY are: **$43,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: General Security Access / 3
Project Number/Filename: 8207 / GenSec
Project Manager/% Expansion: Brightbill / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	12,000	2,000	0	0	0
B. Anticipated Allocations	60,000	0	43,000	0	0	0
C. Authorized this Year	60,000	12,000	45,000	0	0	0
D. Estimated Expenditures	(48,000)	(10,000)	(45,000)	0	0	0
E. Estimated Carry-over	12,000	2,000	0	0	0	0

HOB Improvements

Project Manager, Department/Division:
Edgar Lopez, Engineering/Capital Projects

Project Purpose:
Improve the safety, serviceability, maintainability, usability, and appearance of the interior and exterior of the Headquarters Office Building (HOB).

Project History:
The HOB was completed in 1983. After 27 years of use, the interior needs upgrading. The current seismic upgrade of the HOB will require remodeling parts of the interior.

Project Description:
The HOB interior walls will be painted, repaired or replaced, along with the replacement of damaged ceiling tiles, and carpeting. In addition, lighting systems will be upgraded and some office spaces will be reconfigured. Interior and exterior changes will be made to bring the building into compliance with ADA requirements. Improvements will also be made to resist inclement weather. The Permit Vault will be reconfigured into a common workspace to be used by Permit Counter staff and others.

Project Location:
Headquarters Office Building.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2012	08/01/2012	$450,000
Design	08/01/2012	10/01/2012	$377,200
Construction	10/01/2012	06/17/2023	$117,300
		Total:	**$944,500**

Estimated expenditures this FY are: **$50,000**
Anticipated Allocations this FY are: **$100,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: HOB Improvements 12-13 thru 21-22 / 3
Project Number/Filename: 8234 / HOB_imprvs
Project Manager/% Expansion: Lopez / 0

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	74,000	74,000	124,000	74,000	124,000
B. Anticipated Allocations	234,000	160,000	100,000	0	100,000	0
C. Authorized this Year	234,000	234,000	174,000	124,000	174,000	124,000
D. Estimated Expenditures	(160,000)	(160,000)	(50,000)	(50,000)	(50,000)	(95,000)
E. Estimated Carry-over	74,000	74,000	124,000	74,000	124,000	29,000

POD Office Improvements Project

Project Manager, Department/Division:
Edgar Lopez, Engineering/Capital Projects

Project Purpose:
The project purpose is to make improvements to the interior and exterior of the Plant Operations Department (POD) Administration building.

Project History:
The POD Administration building is over 30 years old. There is an ongoing need to renovate or reconfigure office and workstation space to match employee needs and duties, to replace outdated or worn out furniture, meet ADA requirements, and to incorporate new office technologies.

Replacement of carpeting and repainting has been completed. Modular furniture has been replaced in several cubicles.

Project Description:
This multi-year project will provide an allowance to renovate and upgrade the interior and exterior of the POD Administration offices and the Emergency Operations Center (EOC) located in the Multi-Purpose Room. Anticipated projects include installation of cabinetry for storage of EOC equipment and sidewalk modifications for ADA access.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$165,000
Design	-	-	$325,000
Construction	07/01/2014	06/17/2024	$0
		Total:	**$490,000**

Estimated expenditures this FY are: **$50,000**
Anticipated Allocations this FY are: **$100,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: POD Office Improvements - LT / 3
Project Number/Filename: pGI05 / POD_office
Project Manager/% Expansion: Lopez / 0

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
A. Current Carry-over	0	50,000	5,000	55,000	5,000	60,000
B. Anticipated Allocations	100,000	25,000	100,000	0	100,000	0
C. Authorized this Year	100,000	75,000	105,000	55,000	105,000	60,000
D. Estimated Expenditures	(50,000)	(70,000)	(50,000)	(50,000)	(45,000)	(45,000)
E. Estimated Carry-over	50,000	5,000	55,000	5,000	60,000	15,000

Seismic Improvements for HOB

Project Manager, Department/Division:
Edgar Lopez, Engineering/Capital Projects

Project Purpose:
Upgrade the Headquarters Office Building (HOB) to current seismic safety standards.

Project History:
Since the construction of the HOB in the mid-1980s, a great deal has been learned from the Loma Prieta and Northridge earthquakes and earthquake code requirements have changed. In 2008 Complete Project Solutions, Inc. (CPS) completed an analysis of HOB identifying significant seismic deficiencies based on current design standards.

CPS' analysis of HOB revealed issues with the building columns and the steel moment frames. While no building constructed with steel moment frames has collapsed in the United States, there are unique aspects to the HOB that warrant additional concern. Combining the unique aspects of the HOB and the lack of meeting current design standards indicate that HOB may not provide basic life safety to occupants.

Project Description:
Seismically retrofit HOB to provide up to an enhanced life safety level of structural performance. Work will be coordinated with HOB Improvements for carpeting, painting, and other office space enhancements.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	07/16/2008	03/01/2012	$1,110,600
Construction	03/01/2012	12/31/2014	$4,830,300
		Total:	**$5,940,900**

Estimated expenditures this FY are: **$1,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Seismic Improvements for HOB / 3
Project Number/Filename: 8226 / seismic_HOB
Project Manager/% Expansion: Lopez / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	2,571,000	1,000	0	0	0
B. Anticipated Allocations	5,716,000	225,000	0	0	0	0
C. Authorized this Year	5,716,000	2,796,000	1,000	0	0	0
D. Estimated Expenditures	(3,145,000)	(2,795,000)	(1,000)	0	0	0
E. Estimated Carry-over	2,571,000	1,000	0	0	0	0

Asset Management Program Development

Project Manager, Department/Division:
Dana Lawson, Engineering/Capital Projects

Project Purpose:
Develop a comprehensive asset management program that covers all four programs (treatment plant, collection system, recycled water, and general improvements) to manage the lifecycle cost of owning, operating, and maintaining the assets while continuing to meet the District's mission with a tolerable level of risk.

Project History:
This project builds on the previous Treatment Plant Asset Management Plan, Force Main Assessment, various master plans and the sewer renovation program.

Project Description:
The first phase of the project will engage a consultant to assist with an asset management policy, gap-analysis and development of a 5-year implementation plan.

The following tasks might also be initiated this fiscal year:
- Developing and standardizing documentation such as procedures and guidelines
- Coordinating efforts with other Divisions
- Updating the Pumping Station inventory

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2014	06/30/2024	$3,540,000
Design	-	-	$0
Construction	-	-	$0
		Total:	**$3,540,000**

Estimated expenditures this FY are: **$700,000**
Anticipated Allocations this FY are: **$1,090,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Asset Management Program Development / 4
Project Number/Filename: 8238 / asset_mgmt_prog
Project Manager/% Expansion: Lawson / 0

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
A. Current Carry-over	0	390,000	0	0	0	0
B. Anticipated Allocations	1,090,000	110,000	500,000	500,000	500,000	500,000
C. Authorized this Year	1,090,000	500,000	500,000	500,000	500,000	500,000
D. Estimated Expenditures	(700,000)	(500,000)	(500,000)	(500,000)	(500,000)	(500,000)
E. Estimated Carry-over	390,000	0	0	0	0	0

RECYLED WATER PROGRAM

TABLE OF CONTENTS

RECYCLED WATER PROGRAM

Table RW-1 presents project listings and detailed budget information. Detailed project information, schedules, and cash flow tables are presented in individual project data sheets.

OVERVIEW

The District currently delivers about 200 million gallons per year of recycled water to 35 customers located within the Zone 1 service area for landscape irrigation and commercial uses. These customers are located along the Interstate 680 corridor in Pleasant Hill, Concord, and Martinez. The District also uses about 400 million gallons per year at the treatment plant for process water and landscape irrigation. The Regional Water Quality Control Board (RWQCB) encourages the District to expand its recycled water program, and activities must be reported annually to the RWQCB. The District continues to pursue a number of projects as described in the following pages.

The major emphasis of the Recycled Water Program for the next fiscal year will be pursuing development of a small-scale refinery project to serve 0.5 MGD to Shell Refinery out of our existing treatment facilities and connecting individual customer sites within the Concord Landscape Project. The District will also continue efforts to add new cost- effective customers in the District's Zone 1 service area, and pursue outside funding assistance, such as federal and state grants for all District recycled water projects.

Table RW-1: Recycled Water Subprogram / Project List

Subprogram / Project No. / Project Title			Estimated Total Project Expenditures	Estimated Expenditures To 06/30/14	Anticipated Allocations FY 2014-15	Estimated Expenditures FY 2014-15
1	**Urban Landscaping**					
	7299	Concord Landscape Project	4,268,300	3,898,300	353,300	370,000
	7300	Refinery Recycled Water Project	1,396,400	156,400	200,000	80,000
	7259	Recycled Water Planning	1,675,200	1,555,200	6,200	50,000
	7306	Zone 1 Recycled Water - Ph 1C	1,681,000	136,000	10,000	50,000
	7279	Concord Naval Weapons Station Recycled Water Planning	280,900	259,900	0	1,000
	7261	Cathodic Protection System Repl	25,700	19,700	0	1,000
		Subprogram Total	**9,327,500**	**6,025,500**	**569,500**	**552,000**
		Program Total	**$9,327,500**	**$6,025,500**	**$569,500**	**$552,000**

Concord Landscape Project

Project Manager, Department/Division:
Nathan Hodges, Engineering/Environmental Services

Project Purpose:
Extend the recycled water distribution system from the Buchanan Fields Golf Course to the Diamond/Meridian Park Boulevard area of Concord and connect the landscape irrigation demand at businesses and roadway medians. Completion of this project will provide up to 190 acre-feet per year (AFY) of recycled water for landscape irrigation customers.

Project History:
Construction of the distribution system was completed in early 2014. Work included installation of the mainline pipe and service laterals to each property that agreed to accept recycled water. Because of substantial coordination issues between various agencies with jurisdiction and property owners, the conversion from potable water to recycled water was planned to be done as a separate capital project.

Project Description:
The focus of this project in 2014/2015 will be the customer connections. Connections may be phased to accommodate the challenges of converting potable systems to the recycled water system. There are approximately 34 connections to be made. As customers are connected, additional recycled water sales revenue will be generated, and will be used to first fund O&M expenses, and then the SCF.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	07/01/2011	09/01/2011	$881,800
Construction	09/01/2011	06/30/2015	$3,386,500
		Total:	**$4,268,300**

Estimated expenditures this FY are: **$370,000**
Anticipated Allocations this FY are: **$353,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Concord Landscape Project / 1
Project Number/Filename: 7299 / Concord_LS
Project Manager/% Expansion: Hodges / 0

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
A. Current Carry-over	0	255,000	1,697,000	17,000	0	0
B. Anticipated Allocations	540,000	3,375,000	0	353,000	0	0
C. Authorized this Year	540,000	3,630,000	1,697,000	370,000	0	0
D. Estimated Expenditures	(285,000)	(1,933,000)	(1,680,000)	(370,000)	0	0
E. Estimated Carry-over	255,000	1,697,000	17,000	0	0	0

Refinery Recycled Water Project

Project Manager, Department/Division:
Melody LaBella, Engineering/Environmental Services

Project Purpose:
Provide recycled water to the Shell and/or Tesoro refineries in Martinez.

Project History:
The two refineries use a combined total of approximately 22,500 acre feet per year (AFY) of Delta water for cooling towers and boiler feed water applications. CCCSD discharges over 40,000 AFY of secondary effluent to Suisun Bay that could be recycled and reused at the refineries to replace Delta water. Some of the infrastructure required for this project already exists, but new filtration, nitrification and disinfection facilities are needed to meet refinery water quality requirements.

Project Description:
Work with CCWD to develop a small-scale (0.5 MGD) project to serve Shell Refinery in the near-term, while pursuing funding for the development of a larger-scale refinery project that includes the construction of new recycled water treatment facilities including nitrification, filtration, and disinfection facilities and possibly denitrification facilities. Depending on the volume of recycled water served, the total estimated project cost can range from $31 to $100 million. In 2011, CCCSD was awarded a grant from the U.S. Bureau of Reclamation to prepare a feasibility study and environmental documentation. The feasibility study is expected to be completed in late 2014. At this time, budget is only included for project planning activities and to pursue funding and project partners.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2011	07/01/2014	$336,400
Design	-	-	$200,000
Construction	07/01/2014	06/17/2020	$860,000
		Total:	**$1,396,400**

Estimated expenditures this FY are: **$80,000**
Anticipated Allocations this FY are: **$200,000**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Refinery Recycled Water Project / 1
Project Number/Filename: 7300 / refinery ReW
Project Manager/% Expansion: LaBella / 0

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
A. Current Carry-over	0	144,000	94,000	94,000	214,000	14,000
B. Anticipated Allocations	150,000	0	100,000	200,000	100,000	240,000
C. Authorized this Year	150,000	144,000	194,000	294,000	314,000	254,000
D. Estimated Expenditures	(6,000)	(50,000)	(100,000)	(80,000)	(300,000)	(240,000)
E. Estimated Carry-over	144,000	94,000	94,000	214,000	14,000	14,000

Recycled Water Planning

Project Manager, Department/Division:
Nathan Hodges, Engineering/Environmental Services

Project Purpose:
Develop and implement a comprehensive long-term Recycled Water Program that provides recycled water for landscape irrigation, industrial reuse, and other applications.

Project History:
The District has worked with local water purveyors over the years to develop partnerships and identify opportunities to expand recycled water use. Recent planning efforts have focused on the refinery recycled water project; the use of recycled water on buffer properties near the treatment plant; dual plumbing applications; and the use of satellite treatment facilities to provide recycled water to landscape irrigation customers in remote areas.

Project Description:
Perform planning studies for the District's recycled water program to address implementation issues such as funding, regulations, developing policies (ie. satellite recycled water facilities) public education, and gaining political support from public agencies. Pilot test treatment technologies that may lead to more cost-effective production of recycled water. Develop documents to comply with State Water Resources Control Board requirements for salt and nutrient management plans.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$1,675,200
Design	-	-	$0
Construction	01/01/2008	06/17/2017	$0
		Total:	**$1,675,200**

Estimated expenditures this FY are: **$50,000**
Anticipated Allocations this FY are: **$6,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Recycled Water Planning / 1
Project Number/Filename: 7259 / rew_01planning
Project Manager/% Expansion: Hodges / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	29,000	44,000	0	0	0
B. Anticipated Allocations	1,479,000	120,000	6,000	35,000	35,000	0
C. Authorized this Year	1,479,000	149,000	50,000	35,000	35,000	0
D. Estimated Expenditures	(1,450,000)	(105,000)	(50,000)	(35,000)	(35,000)	0
E. Estimated Carry-over	29,000	44,000	0	0	0	0

Zone 1 Recycled Water – Phase 1C

Project Manager, Department/Division:
Nathan Hodges, Engineering/Environmental Services

Project Purpose:
Provide recycled water for landscape irrigation and other identified uses in the Zone 1 Project area, which includes Pleasant Hill and portions of Concord and Martinez.

Project History:
In 2001, the District completed the Zone 1 Implementation Plan that provided estimated connection costs and revenues for customers identified in the CCWD Zone 1 Project Agreement. Depending on the extent of use, demand for recycled water in Zone 1 for landscape irrigation and commercial uses could be up to 400 million gallons per year. A recycled water distribution main for the Zone 1 area was constructed as part of the Pleasant Hill Relief Interceptor project to take advantage of cost-saving opportunities. New customers will continue to be added to the system where technically and economically feasible. The District is focusing on connecting cost-effective landscape irrigation sites near existing recycled water distribution pipelines.

Project Description:
This project provides funds for the planning, design, and construction of recycled water facilities for landscape irrigation customers and other identified uses in the Zone 1 Project area. Subsequent phases of this project continue in future fiscal years.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$216,000
Design	-	-	$180,000
Construction	07/01/2013	06/17/2023	$1,285,000
		Total:	**$1,681,000**

Estimated expenditures this FY are: **$50,000**
Anticipated Allocations this FY are: **$10,000**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: Zone 1 Recycled Water - ph 1C - 2012 to 2022 / 1
Project Number/Filename: 7306 / rew_02zone1
Project Manager/% Expansion: Hodges / 0

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A. Current Carry-over	0	84,000	44,000	0	0	(10,000)
B. Anticipated Allocations	220,000	10,000	56,000	100,000	50,000	100,000
C. Authorized this Year	220,000	94,000	100,000	100,000	50,000	90,000
D. Estimated Expenditures	(136,000)	(50,000)	(100,000)	(100,000)	(60,000)	(50,000)
E. Estimated Carry-over	84,000	44,000	0	0	(10,000)	40,000

Concord Naval Weapons Station Recycled Water Planning

Project Manager, Department/Division:
Nathan Hodges, Engineering/Environmental Services

Project Purpose:
Identify recycled water infrastructure necessary to serve the extensive development being planned at the Concord Naval Weapons Station (CNWS) site as part of the Concord Community Reuse Project.

Project History:
The planned redevelopment of the CNWS property provides an excellent opportunity to expand recycled water use in the District's service area. In 2009, the City of Concord selected a preferred development plan and in 2010, the Final Environmental Impact Report (EIR) was completed. It includes recycled water demand scenarios of up to 2,749 AFY for landscape irrigation. In 2012, the District completed a Recycled Water Facilities plan for the CNWS Redevelopment that identified the conceptual recycled water infrastructure necessary to serve the irrigation demands identified in the EIR.

Project Description:
As CNWS redevelopment plans move forward, the Recycled Water Facilities Plan will form the basis of future work to ensure that appropriate recycled water projects are identified for timely inclusion in the District's capital budget and that Concord Community Reuse Project's contribution to the cost of infrastructure can be ascertained.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	07/01/2010	07/01/2012	$280,900
Design	07/01/2012	07/01/2015	$0
Construction	07/01/2015	06/30/2019	$0
		Total:	**$280,900**

Estimated expenditures this FY are: **$1,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:
Project Title/Subprogram: Concord Naval Weapons REW / 1
Project Number/Filename: 7279 / rew_03CNWS
Project Manager/% Expansion: Lopez / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	25,000	20,000	19,000	15,000	10,000
B. Anticipated Allocations	280,000	0	0	1,000	0	0
C. Authorized this Year	280,000	25,000	20,000	20,000	15,000	10,000
D. Estimated Expenditures	(255,000)	(5,000)	(1,000)	(5,000)	(5,000)	(5,000)
E. Estimated Carry-over	25,000	20,000	19,000	15,000	10,000	5,000

Cathodic Protection System Replacement

Project Manager, Department/Division:
Andrew Antkowiak, Engineering/Capital Projects

Project Purpose:
Cathodic protection for all recycled water facilities will be provided by replacing existing expended facilities and installing new systems where required.

Project History:
To extend the useful life of the District recycled water facilities, structures and pipelines, cathodic protection systems need to be monitored and maintained. A master plan for treatment plant, recycled water and collection systems cathodic protection was prepared and identified facilities that needed replacement and improvements over the next five-year period. The report also identified existing facilities requiring further investigation.

Project Description:
Based on the recommendations from the master plan, cathodic protection systems that are not providing adequate protection will be repaired and/or replaced, and any other facilities that may require cathodic protection will be identified.

Project Schedule and Cost:

	Start Date	*Completion Date*	*Total Cost*
Planning	-	-	$0
Design	07/01/2006	02/01/2007	$25,700
Construction	02/01/2007	06/01/2016	$0
		Total:	**$25,700**

Estimated expenditures this FY are: **$1,000**
Anticipated Allocations this FY are: **$0**

Project Fiscal Year Allocation/Expenditure Table:

Project Title/Subprogram: REW - Cathodic Prot Sys Repl / 1
Project Number/Filename: 7261 / rew_cathodic
Project Manager/% Expansion: Antkowiak / 0

	Prior to 7/01/13	2013-14	2014-15	2015-16	2016-17	2017-18
A. Current Carry-over	0	5,000	6,000	5,000	0	0
B. Anticipated Allocations	20,000	6,000	0	0	0	0
C. Authorized this Year	20,000	11,000	6,000	5,000	0	0
D. Estimated Expenditures	(15,000)	(5,000)	(1,000)	(5,000)	0	0
E. Estimated Carry-over	5,000	6,000	5,000	0	0	0

2014 CAPITAL IMPROVEMENT PLAN
TEN YEARS ENDING JUNE 30, 2024

TABLE OF CONTENTS

List of Tables

2014 CAPITAL IMPROVEMENT PLAN
TEN YEARS ENDING JUNE 30, 2024

PURPOSE

The Central Contra Costa Sanitary District (District) is responsible for the collection, treatment and disposal of wastewater for a population of approximately 467,500 in central Contra Costa County. The District has developed a ten-year Capital Improvement Plan (CIP) for the District's capital facilities and financing needs. The CIP is updated every year. Specifically, the plan identifies and prioritizes capital projects needed to accomplish the District's mission. It also includes cost estimates for proposed project work and projections for the various sources of revenue needed to meet the cash flow requirements of the CIP.

The principal purpose of the CIP is to provide the District's Board of Directors with the information needed to formulate long-range policy regarding:

- Priority and Schedule – identify, prioritize, and schedule the projects necessary to accomplish the District's mission.
- Financing – plan sufficient financial resources for completion of the projects proposed in the CIP.

The following discussion provides: 1) a general description of the plan, 2) a discussion of potential, unbudgeted future projects, and 3) a cash flow discussion.

CAPITAL IMPROVEMENT EXPENDITURES

This plan covers the ten-year period from FY 2014-15 through FY 2023-24. The plan includes projected expenditures totaling $296,003,000 (2014 dollars).

In addition to providing the basis for policy decisions concerning the District's long-range Capital Improvement Program and management of the Sewer Construction Fund, the CIP also serves as the framework for fee analysis and is the basis for the FY 2014-15 Capital Improvement Budget (CIB) (the first year of the CIP).

The following discussion gives an overview of the plan's goals and the programs proposed to meet these goals. A description of the District's guiding financial principles and a brief summary of the CIP's cash flow are also presented.

Capital Improvement Program Objectives

The District has identified three principal objectives for its Capital Improvement Program:

- Support the District's mission to protect public health and the environment by:
  - Collecting and treating wastewater
  - Recycling high quality water
  - Promoting pollution prevention

- Accommodate future growth in the service area as approved by the city and county planning agencies responsible for land use policy decisions.

- Respond to issues of community concern by:
  - Managing the cost of operating and maintaining facilities
  - Reducing objectionable odors
  - Cooperating with other public agencies to avoid duplication of effort and improve service delivery
  - Reducing power consumption through energy management

Programs

Capital improvement projects are grouped into four programs: Treatment Plant, Collection System, General Improvements, and Recycled Water. A summary of the ten years of planned expenditures by program, without inflation, is contained in Table 1. Below is a brief discussion of each ten-year program.

Treatment Plant

The Treatment Plant Program includes projects that will meet changing regulatory mandates, address recurring renovation needs, and upgrade the wastewater treatment plant in areas such as hydraulic/process and solids handling capacity. The emphasis of the Treatment Plant Program will be on the renovation needs of the aging infrastructure of our complex treatment facility and on meeting increasingly stringent regulatory requirements. Capacity improvements will be primarily limited to those needed for the solids handling processes and to handle wet weather flows. One large regulatory project faces the District in the next ten to twenty years: the $70 million Nutrient Removal project. Staff will continue to evaluate treatment alternatives and pilot programs in anticipation of possible regulatory changes and to help identify improvements and process capabilities. These projects will include Zeolite-Anammox, ozonation, and solids handling.

Collection System

The Collection System Program includes projects needed to renovate aging sewers and to serve new development in the District's service area. Specific near-term and long-term goals include upgrading the system where necessary to address capacity needs, improving the reliability of the District's pumping stations, and implementing projects to address renovation needs. The Collection System Master Plan and hydraulic model analysis have been used to identify and prioritize the collection system projects.

Since its inception in FY 2002-03, the District-Wide TV Inspection program has been used to identify line segments in need of renovation. The TV inspection results, coupled with CSO maintenance records and hydraulic analysis are used to prioritize lines in need of renovation. The areas of concern are then grouped geographically and bid as District projects. The TV inspection program helps CSO to better prioritize and plan maintenance activities and has been moved to the Operations and Maintenance budget to reflect the ongoing and District-wide nature of the program.

The Collection System Master Plan is updated periodically District-wide and is revisited on a routine basis when changes in development patterns occur. This plan documents the sewers which will need to be upsized to increase capacity over approximately the next 30 years. As this capacity is needed, these lines are added to the capital program. The Collection System Program also provides for pumping station and force main improvements to increase station capacity, provide emergency power, and upgrade old equipment to increase capacity and improve reliability.

General Improvements

This program addresses the property and equipment needs of the District. Specific projects include property acquisition, improvements to the District’s buildings and other District properties, information system and data management upgrades (computer hardware and software) and other miscellaneous equipment, including vehicles. This program includes an Asset Management Program sub-program.

Recycled Water

The District will continue to expand its urban landscaping projects in a cost-effective way by linking recycled water pipeline projects with sewer construction projects. Major projects include identifying the infrastructure needed to supply recycled water to the Concord Naval Weapons Station and construction of the Concord Landscape project. District staff will also continue to pursue financial partners for the Refinery Recycled Water project. This project is not currently budgeted except for small expenditures to cover planning activities.

Table 1: Ten-Year Program Expansion-Upgrade/Replacement Estimated Expenditures

Program/Subprogram	Estimated Expenditures* 2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Totals
Treatment Plant											
Reg. Compliance/Planning/Safety	732,000	691,000	925,000	1,035,000	575,000	425,000	431,000	3,871,000	9,390,000	16,015,000	34,019,000
One-Time Renovation	7,957,000	7,326,000	9,381,000	8,621,000	7,710,000	5,555,000	2,080,000	580,000	277,000	1,200,000	50,687,000
Recurring Renovation	365,000	2,670,000	2,060,000	1,160,000	3,050,000	3,060,000	4,810,000	3,370,000	1,870,000	720,000	23,197,000
Expansion	0	0	0	0	0	0	0	50,000	100,000	440,000	590,000
Subtotal	**9,045,000**	**10,687,000**	**12,366,000**	**10,816,000**	**11,335,000**	**9,040,000**	**7,321,000**	**7,871,000**	**11,637,000**	**18,375,000**	**108,493,000**
Collection System											
Renovation	9,466,000	6,701,000	13,651,000	13,401,000	14,614,000	13,501,000	5,751,000	8,851,000	8,800,000	10,200,000	104,936,000
Reg. Compliance/Planning/Safety	600,000	575,000	340,000	340,000	240,000	240,000	140,000	140,000	140,000	140,000	2,895,000
Expansion	1,701,000	6,201,000	1,301,000	1,201,000	1,401,000	2,002,000	11,502,000	6,352,000	6,371,000	5,998,000	44,030,000
Pumping Stations	450,000	240,000	345,000	2,180,000	1,610,000	435,000	635,000	1,535,000	2,135,000	935,000	10,500,000
Subtotal	**12,217,000**	**13,717,000**	**15,637,000**	**17,122,000**	**17,865,000**	**16,178,000**	**18,028,000**	**16,878,000**	**7,446,000**	**17,273,000**	**162,361,000**
General Improvements											
Vehicles & Equipment	620,000	501,000	501,000	501,000	500,000	500,000	500,000	500,000	500,000	500,000	5,123,000
Management Information Systems	1,450,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	5,950,000
Projects	495,000	470,000	490,000	860,000	480,000	480,000	480,000	480,000	480,000	480,000	5,195,000
Asset Management Plan	700,000	500,000	500,000	500,000	500,000	500,000	110,000	110,000	60,000	60,000	3,540,000
Subtotal	**3,265,000**	**1,971,000**	**1,991,000**	**2,361,000**	**1,980,000**	**1,980,000**	**1,590,000**	**1,590,000**	**1,540,000**	**1,540,000**	**19,808,000**
Recycled Water											
Urban Landscaping	552,000	487,000	427,000	560,000	560,000	550,000	565,000	565,000	560,000	510,000	5,336,000
Industrial ReW	0	0	0	0	0	0	0	0	0	5,000	5,000
Subtotal	**552,000**	**487,000**	**427,000**	**560,000**	**560,000**	**550,000**	**565,000**	**565,000**	**560,000**	**515,000**	**5,341,000**
TOTALS	25,079,000	26,862,000	30,421,000	30,859,000	31,740,000	27,748,000	27,504,000	26,904,000	31,183,000	37,703,000	296,003,000

* All figures shown in 2014 dollars.

Potential Future Projects Not Included in 2014 Capital Plan

The projects listed in this CIP are those that are reasonably certain to be undertaken by the District. However, when evaluating project priority and cash flow impacts, consideration must be given to potential projects that are uncertain and not currently included in the plan. If some or all of these potential projects listed below are required to be undertaken, there could be a significant impact on the financial forecasts contained in the plan.

Table 2: Potential Projects Not in 2014 Capital Improvement Plan

Description	Time frame	Estimated total project cost	Estimated probability
Treatment Plant			
Greenhouse Gas Reduction – Regulations are under development that will require significant reductions in greenhouse gas emissions. The appropriate reduction plan may include diversifying our energy portfolio by adding a renewable energy source, such as solar or wind. Alternatively, the requirements may be satisfied by buying carbon dioxide allowances on the open market or shutting down the cogeneration facility.	10 - 20 yrs	$15 - $30 million	Medium
Nutrient Removal – Construct facilities for nitrogen and phosphorus removal to address more stringent receiving water standards.	10 - 20 yrs	$70 million	Low
Mercury Removal From Furnace Emission - Although the 129 Regulations relaxed the Mercury emissions to a level that could be met with the District's current emission control systems, the Bay Area Air Quality District has indicated that it may impose a more stringent emission requirement for mercury which may necessitate the addition of new emission control systems for the furnaces.	3 - 10 yrs	$25-35 million	Medium
Recycled Water Projects			
Martinez Refinery Recycled Water Project - Construct new treatment and distribution facilities to supply up to 20 MGD to the Shell and Tesoro refineries for cooling tower makeup and boiler feed water. Money for planning activities only is budgeted.	5 - 10 yrs	$100 million	Medium

CAPITAL IMPROVEMENT REVENUE

Current revenue sources for funding capital improvements have been identified for the four programs of capital improvement projects and are shown in Table 3.

Table 3: Capital Improvement Program Revenue Sources

Program	Subfund	Revenue Source
Treatment Plant	**Expansion -** Additional capacity to serve new customers	◦ Capacity Fees ◦ City of Concord
	Upgrading/Replacement - Improvement of existing facilities to serve current customers	◦ Property Taxes(c) ◦ City of Concord ◦ Sewer Service Charge(d) ◦ Debt Financing
Collection System(a)	**Expansion -** Additional capacity to serve new customers	◦ Capacity Fees ◦ Pumped Zone Fees ◦ Developer Fees
	Upgrading/Replacement - Improvement of existing facilities to serve current customers	◦ Property Taxes(c) ◦ Sewer Service Charge(d) ◦ Debt Financing
General Improvements (b)	----------	◦ Property Taxes(c) ◦ Sewer Service Charge(d)
Recycled Water	----------	◦ Property Taxes(c) ◦ City of Concord ◦ Sewer Service Charge(d) ◦ Customer Revenue ◦ Loans(e) ◦ Debt Financing ◦ Grant funds (f)

(a) Includes pumping station facilities.
(b) Includes improvements to administrative facilities (Headquarters Office Building and CSO yard), land purchases, vehicles, equipment, and furniture.
(c) Property taxes may be used for any District purpose at the discretion of the Board of Directors within Proposition 4 limits and Clean Water Grant regulations; however, the uses indicated are recommended as the most equitable.
(d) A capital improvements increment was added to the annual sewer service charge in 1992 to supplement ad valorem taxes for upgrading/replacement of District capital facilities.
(e) State Water Reclamation Loan Program
(f) DWR Prop 84 Funds, Bureau of Reclamation Title 16

Revenue Sources

Capital Improvement revenue sources include the following:

Property Tax Revenue

Beginning in FY 1992-93, the State of California reduced District's historic property tax revenues by 40% to help meet the state's educational funding obligations. As a result, property tax revenue that would have been received in the 11 years from FY 1992-93 through FY 2002-03 was reduced by about $38,000,000. The 40% decrease in property tax is now considered permanent and is not considered in any projections of future property tax revenues. Proposition 1A, passed by the California voters in November 2004, allowed the State of California to divert property tax revenues from local government for two years, 2004-05 and 2005-06. Effective 2006-07, Proposition 1A dictates that no additional property tax diversion will occur. The State can, however, borrow a portion of the tax revenue twice in the next ten years, but must pay it back, with interest, within three years.

Sewer Service Charge Revenue (SSC)

The capital component of the Sewer Service Charge (SSC) has traditionally been used to supplement all other sources of revenue as needed to fund the capital program. When the District lost 40% of the property tax revenue in 1992-93 it compensated by adding a capital project component to the SSC. Until FY 2000-01, $31 per Residential Unit Equivalent (RUE) of the SSC was for capital projects.

In 2000-01, the capital component of the SSC was reduced from $31 per RUE to $15 per RUE. This resulted in a significant shortage of revenue as compared to expenditures in the capital program and Sewer Construction Fund reserves were used to cover the shortfall. In 2001-02, 2002-03, 2003-04 and 2004-05, the capital component of the SSC was gradually increased and more recently it has varied each year, depending on the capital revenue available from other sources and the planned expenditures.

Since 2006-07, the capital component has been reduced from $76 to $11 in order to continue to fund operations and maintenance while not raising rates for 2009-10 and 2010-11. The Capital component was raised to $39 in 2011-12 but was reduced to $27 in 2012-13 due to higher budget projections in O&M expenses, increased largely by a rise in O&M benefits of $3.1 million. This is mainly due to the CCCERA rate increase of 13.79% applied to salaries. The capital component was $40 in 2013-14 and is projected to be $23 per RUE in 2014-15.

The Board of Directors approved an increase in the SSC rate by $34 per Residential Unit Equivalent (RUE) for 2013-14 and 2014-15. A public hearing was held on April 17, 2014, after which the Board confirmed the 2014-15 SSC increase.

Interest on Investments

A projection of the rate of return on the invested Sewer Construction Funds Available is needed to predict interest revenues in the future. The investment strategy of the District is designed to attain a market-average rate of return while exercising a minimum of risk. The District's current areas of investment are United States Treasury Bills and Notes, Commercial Paper, CD's and the Local Agency Investment Fund of the State of California. The weighted average of interest on investments for the sewer construction investment portfolio for 2013-14 was 0.50% and is projected to be 0.75% in 2014-15. It is anticipated that interest rates will begin to climb again in the future.

Capacity Fee Revenue/Number of New Connections

A capacity fee is paid by each new connector to the District. This fee is recalculated each year and represents the cost of buying into the existing assets of the District. Capacity fee revenue projections from new connections have been adjusted to reflect changes in the housing market, which is difficult to predict and can have a substantial impact on the available revenues for the capital program. The housing market also drives revenue from rates and charges for developer services, and SSCs from new connections. All these revenues are reduced along with capacity fee revenues when the housing market cools. In recent years, evidence suggests that there may be a permanent shift underway in the nature of the housing market from large developments to smaller infill projects.

Debt Financing

The District has on occasion used debt financing to fund projects. In December of 1994, $25,000,000 in long-term (20 years) debt financing was completed to fund several large projects including the Pleasant Hill Relief Interceptor and Outfall Improvement projects. The 1994 debt was refunded with 1998 refunding Revenue Bonds to achieve significant savings in debt service costs through lower interest rates. In 1998-1999 the District received a total of $2,916,872 in loans for the recycled water program from the State of California. In 2002, an additional $16,600,000 million in long-term (20 years) debt financing was completed to allow escalation of schedules for several major projects needed to serve the Dougherty Valley in San Ramon. In 2009, the District issued $54,125,000 in Certificates of Participation (COP) which retired the 1998 and 2002 debt to take advantage of favorable bond interest rates, and included $30 million in debt which was issued to fund some large, needed one-time projects. A separate Debt Fund has been established to collect revenue and repay debt; therefore, debt repayment is not reflected in Capital Program cash flow projections.

FINANCIAL PRINCIPLES

The District has developed and maintained a capacity fee system, which equitably divides the cost obligations of the capital program between the existing customers of District facilities and new customers of these facilities. Under this "fair share" approach, existing customers, primarily through property taxes and a capital component of the annual SSC, and new users through capacity fees based on a proportional "buy-in" to the current value of all existing capital assets, fund facilities upgrade, renovation and replacement costs as well as expansion projects needed to accommodate growth.

The Board of Directors has generally preferred a pay-as-you-go financing approach, raising sewer service charge rates as needed to fund the capital program. Occasionally, the District has bond-financed capital projects, particularly when such projects are large, one-time expenditures that will benefit current and future ratepayers.

Going forward, the two discretionary sources of capital revenue for the District Board are sewer service charge and bond financing. Thus, any reduction in capital revenue from other sources, such as capacity fees, would have to be made up by an increase in the sewer service charge, by a like reduction in expenditures on the capital program, or by borrowing.

SEWER CONSTRUCTION FUND CASH FLOW

Sewer Construction Funds are utilized during the year as the District bank to meet short-term cash flow needs created by the receipt of revenue from the County only twice per year. The minimum balance required to meet cash flow needs over a six month period ranges from $30 to $40 million over the ten year period. Each year a comprehensive Ten-Year Financial Plan, which incorporates both Capital and O&M expense and revenue, is prepared and presented to the Board to inform that year's decisions on sewer service charge rate increases.

Table 4 on the following page contains the ten-year cash flow projection for the CIP and assumes that sewer service charge rates will be raised as needed to fund the plan. Table 5 contains the basic assumptions used to develop the cash flow projection.

Table 4: Ten-Year Capital Improvement Plan Recommended Scenario Cash Flow Projection

SEWER CONSTRUCTION FUND	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
INCOME										
INTEREST ON INVESTMENTS	280	283	381	429	526	690	928	1,168	1,390	1,572
FACILITIES CAPACITY FEE	5,890	6,184	6,484	6,788	7,096	7,407	7,722	8,077	8,250	8,419
PUMPED ZONE FEE	528	555	582	609	497	187	195	181	185	189
AD VALOREM TAXES	8,160	10,077	10,237	10,430	10,933	11,321	11,782	12,275	12,774	13,260
SEWER SERVICE CHARGES	3,784	6,752	5,935	11,611	11,349	11,084	10,478	8,335	16,606	15,506
REIMBURSEMENTS FROM OTHERS:										
CITY OF CONCORD	3,305	3,841	4,506	4,180	4,407	3,698	3,136	3,432	5,055	7,653
BOND PROCEEDS										
DEVELOPER FEES AND CHARGES, ALL OTHER	334	351	361	372	382	393	405	416	428	441
Subtotal	22,281	28,043	28,486	34,419	35,190	34,780	34,646	33,884	44,688	47,040
EXPENDITURES										
TREATMENT PLANT PROGRAM	8,974	11,008	13,119	11,819	12,758	10,480	8,742	9,607	14,602	22,723
COLLECTION SYSTEM PROGRAM	12,317	14,129	16,595	18,715	20,107	18,755	21,526	20,832	22,176	23,790
GENERAL IMPROVEMENTS PROGRAM	3,136	2,030	2,107	2,574	2,229	2,295	1,899	1,955	2,014	2,009
RECYCLED WATER PROGRAM	652	502	453	612	630	638	675	695	709	672
Subtotal	25,079	27,668	32,274	33,720	35,724	32,168	32,841	33,089	39,502	49,194
NET INCREASE (DECREASE)	(2,798)	375	(3,788)	699	(533)	2,612	1,804	796	5,186	(2,154)

Table 5: Assumptions Used to Calculate Cash Flow Tables

Fiscal Year	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Interest %	0.50%	0.75%	1.00%	1.25%	1.50%	2.00%	2.50%	3.00%	3.50%	3.50%
Inflation %	0.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
# of New Connections	955	975	995	1,015	1,035	1,055	1,075	1,100	1,100	1,100
Ad Valorem Tax Escalation*	0.0%	1.0%	1.0%	1.5%	2.0%	2.5%	3.0%	3.0%	3.0%	3.0%
Total Sewer Service Charge (SSC)	$ 439	$ 473	$ 506	$ 538	$ 544	$ 544	$ 544	$ 544	$ 544	$ 544
SSC Capital Component	$ 23	$ 41	$ 36	$ 70	$ 68	$ 66	$ 62	$ 49	$ 97	$ 90
Sewer Service Charge	Assumes sufficient SSC rate increases to fully fund the capital component needed.									

*Debt Service is funded first, any remaining property tax funds Capital.

SPECIFIC PROJECTS IN THE TEN-YEAR PLAN

A brief description of each program and a list of projects for the ten years of this plan are provided in the Capital Plan sections for each of the four programs.

SUMMARY

This Capital Improvement Plan assumes that funds will be available to support the plan. These funds come from all the sources of revenue previously discussed. The only two discretionary sources of revenue are the sale of bonds or adjustment of the capital component of the Sewer Service Charge. This document is for planning purposes only. The District Board has not voted to increase SSC revenues or sell bonds to fund this planned program. The plan is funded on a year-by-year basis when the Capital Improvement Budget for the upcoming fiscal year is formally authorized and adopted by the Board. Changes in capital revenue forecasts or changes in recommended expenditures may result in changes to this ten-year plan.

TREATMENT PLANT PROGRAM

This section is a listing of the projects in the ten-year Capital Improvement Plan (CIP) that pertain to the District's wastewater treatment plant. The CIP is based on the recognition that plant facilities require ongoing renovations and replacement. Environmental regulations will become more stringent, and the District is on a gradual but steady pace towards build-out over the next 20 years. Major emphasis is on maintaining existing assets, improving processes when cost effective, and ensuring regulatory compliance.

The treatment plant program for the CIP is broken down into four areas: 1) Regulatory Compliance and Safety, 2) One-Time Renovation, 3) Recurring Renovation, and 4) Expansion.

Regulatory Compliance and Safety

The goals of the Regulatory Compliance and Safety projects are to ensure that existing and future facilities meet safety and regulatory requirements. These projects cover a wide variety of subjects to optimize energy use and reduce emissions of pollutants to the environment, and meet future regulatory requirement. Budgeted projects to address regulatory requirements include nitrification (ammonia toxicity issues), alternative energy (Greenhouse Gas), multiple hearth furnaces (MHF) improvements (emissions requirements), and soil remediation.

One-Time Renovation

One-Time Renovation projects address major renovation needs that are well defined and expected to occur infrequently. These projects include Burner Upgrades (Furnace Renovation), Primary Treatment Renovation, Wet & Dry Scrubber Replacement, Pump and Blower Building Seismic Upgrade, Alternative Energy Facilities, Aeration System Renovations, Centrifuge & Cake Pump Upgrades, and Screenings Removal.

Recurring Renovation

The goals of the Recurring Renovation Program are to provide for ongoing or future renovation activities. This subprogram provides capital funds for replacement or rehabilitation of aging treatment plant infrastructure. The categories include Equipment Replacement, Piping Renovations and Replacement, Electrical and Instrumentation Replacement, and Cathodic Protection System Replacement.

Expansion

The goals of the expansion projects are to upgrade and improve existing facilities to meet increasing flow due to in-fill, new development and wet weather. Two wet weather capacity issues will be addressed: addition of increased primary treatment capacity, and the installation of a new bar screen. Pre-design work will be completed for primary treatment expansion while the design and construction is projected to take place beyond the ten-year CIP window.

Treatment Plant Regulatory Compliance and Safety Projects in the 2014 Capital Improvement Plan:			
Project Title	**Year**	**Location**	**Description**
Nitrification	2023	Aeration Basins and Clarifiers	The District may be required to remove ammonia from effluent flow in the future. This will require either an expansion of the aeration tanks and clarifiers or use of other technologies and significant capital expenditures.
Ozone Disinfection	2024	Ultraviolet Disinfection	Depending on future regulatory requirements and necessary modifications to the treatment plant an alternative disinfection method may be required.
New Solids Handling Facilities (MHF/Digesters)	2023	Entire Treatment Plant	There are a number of potential regulatory changes that may be implemented within the next ten years. These changes may include requirements that will necessitate replacement of the existing Multiple Hearts Furnaces with Fluidized Bed Incinerators or construction of Anaerobic Digesters or use of other available technology for treatment and disposal of sludge. These anticipated changes in solids handling will require significant capital expenditures in the next fifteen years.
TP Safety Improvements Program	2021	Entire Treatment Plant	Improvements will be made to enhance and provide safe working environment throughout the treatment plant.
Future Regulatory Projects	2021	Entire Treatment Plant	Potential new regulations that impact operation of the treatment plant will emerge in the future. Studies will be undertaken and projects constructed to address these issues.
Primary Treatment Covers	2022	Primary Sed Basins	Primary tanks may need to be covered to meet regulations and reduce odors.
Treatment Plant Hazard Identification & Remediation Ph 2	2020	Entire Treatment Plant	This project will identify and remediate hazardous materials within the Treatment Plant. This will minimize the exposure of the District's employees to hazardous materials during the course of their work.

Treatment Plant Regulatory Compliance and Safety Projects in the 2014 Capital Improvement Plan:			
Alternative Energy Facilities Ph 2	2022	Entire Treatment Plant	This project includes evaluation and replacement of the District's cogeneration unit with a new, more efficient power generation unit or use of an alternative energy source.
Treatment Plant Soil Remediation Ph 2	2023	Area east of existing aeration tanks	The soil east of the existing aeration tanks is contaminated. To expand the aeration tanks in preparation for plant conversion for nitrification, the contaminated soil will have to be either treated on-site or removed and disposed at an appropriate class landfill.

Treatment Plant One-Time Renovation Projects in the 2014 Capital Improvement Plan:			
Project Title	**Year**	**Location**	**Description**
Screenings Removal	2017	Headworks	Removal of screenings from wastewater flow will protect the treatment plant facilities, and reduce wear and tear and maintenance of equipment.
SCB Seismic Improvements	2022	Solids Conditioning Building	Design and construct seismic improvements based upon the recommendations provided in work done under the Treatment Plant Seismic Evaluation Project (DP 7267). The improvements will meet requirements of the latest building codes. Timing/need for this project will be coordinated with the recommendations from the New Solids Handling project.
Furnace Burner	2019	Solids Conditioning Building	Modifications will be made to ensure compliance with emerging regulations. This project will improve operational flexibility of the multiple hearth furnaces by adding auxiliary fuel delivery, piping and burners, and the ability to co-fire natural and landfill gases for the furnaces.

Treatment Plant One-Time Renovation Projects in the 2014 Capital Improvement Plan:			
Warehouse Seismic Upgrade	2019	Warehouse/Mechanical Shop	This project will design and construct seismic improvements based on the recommendations provided in work done under the Treatment Plant Seismic Evaluation Project (DP 7267). The improvements will meet requirements of the latest building codes.
Aeration System Renovation Ph 2	2019	Pump & Blower Building and Primary Tanks area	This project will design and construct small electric blowers for the grit chambers and will optimize use of existing steam blowers and modify the existing electric blower. Adding nitrification and/or nutrient removal to the treatment process will have a major impact on the aeration system and will need to be evaluated.
Secondary Process Improvements Ph 2	2020	Aeration Basins and Clarifiers	This project will replace and modify existing piping and components of the secondary process to extend the life of the system and add flexibility to the selector channel.
Laboratory Seismic Upgrade	2024	Laboratory	This project will design and construct seismic improvements based on the recommendations provided in work done under the Treatment Plant Seismic Evaluation Project (DP 7267). The improvements will meet requirements of the latest building codes.

Treatment Plant Recurring Renovation Projects in the 2014 Capital Improvement Plan:			
Project Title	**Year**	**Location**	**Description**
Treatment Plant Protective Coating Renovation	2015 thru 2025	Entire Treatment Plant	The Treatment Plant Asset Management Plan Project (DP 7269) is documenting the condition of District facilities and equipment and will be used to recommend needed coating projects.
TP Cathodic Protection System Replacement	2016 thru 2025	Entire Treatment Plant	Provide the long-term maintenance and replacement of the cathodic protection system.

Treatment Plant Recurring Renovation Projects in the 2014 Capital Improvement Plan:			
Piping Renovations & Replacement Program	2017 thru 2025	Entire Treatment Plant	This project will improve the reliability of treatment plant piping systems above and below ground by inspection, renovation, and replacement where required. The Asset Management Plan will ultimately be used to provide recommendations for additional renewal and replacement needs of other major piping systems.
Treatment Plant Equipment Replacement	2017 thru 2025	Entire Treatment Plant	Investigate and replace plant equipment to reduce maintenance costs, increase reliability, and improve treatment operations through replacement or reconditioning of technologically obsolete, worn-out, maintenance-intensive equipment, or equipment that is no longer supported by its manufacturer.
Plant Electrical & Instrumentation Replacement	2015 thru 2025	Entire Treatment Plant	The project will identify deficiencies in the electrical, control and instrumentation systems in the Treatment Plant and rectify the issues.

Treatment Plant Expansion Projects in the 2014 Capital Improvement Plan:			
Project Title	**Year**	**Location**	**Description**
Bar Screen for Third Wet Well	2025	Headworks	This project will install a new bar screen on the third wet well in the headworks facilities. Installing a new automatic bar screen on the third wet well will protect plant treatment facilities, in addition to providing plant operators additional flexibility in routing incoming plant flows.

Ten-Year Program Estimated Expenditures – Treatment Plant

		Estimated Expenditures in the Capital Plan										CIP (10-Year) Total	Total Project Cost
Program and Sub-Program		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24		
Treatment Plant													
1 - Reg. Compliance/Planning/Safety													
7315	Plant of the Future Roadmap	100,000	250,000	0	0	0	0	0	0	0	0	450,000	450,000
7284	TP Hazard Identification & Remediation	6,000	100,000	100,000	100,000	250,000	0	0	0	0	0	556,000	753,600
7301	Treatment Plant Planning	371,000	300,000	300,000	300,000	300,000	300,000	300,000	0	0	0	2,171,000	4,084,500
pTP08	TP Safety Improv 2011-12 thru 2019-20	1,000	5,000	5,000	5,000	5,000	5,000	0	0	0	0	26,000	41,000
pTP33	Treatment Plant Soil Remediation	1,000	1,000	50,000	10,000	10,000	10,000	10,000	10,000	0	0	102,000	152,000
pTP23	TP Security Upgr - 2012-13 thru 2021-22	1,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	0	0	71,000	82,000
pTP31	Permitting Study for New Furnace	1,000	0	0	0	0	0	0	0	0	0	1,000	26,000
7311	TP Safety Enhancements Phase 4	240,000	0	0	0	0	0	0	0	0	0	240,000	340,000
7312	Ash Facility Improvements	1,000	10,000	10,000	10,000	0	0	0	0	0	0	31,000	41,000
pTP47	WC / Grayson Creek Levee Rehab	10,000	10,000	300,000	300,000	0	0	0	0	0	0	620,000	620,000
pTP12	Standby Effluent Pumps Refurb - ph 2	0	5,000	150,000	300,000	0	0	0	0	0	0	455,000	455,000
pTP46	TP Hazard Ident & Remediation Ph 2	0	0	0	0	0	100,000	100,000	100,000	100,000	100,000	500,000	1,000,000
none	TP Safety Improvements Program	0	0	0	0	0	0	5,000	5,000	5,000	5,000	20,000	50,000
none	Future Regulatory Projects	0	0	0	0	0	0	5,000	175,000	150,000	150,000	480,000	630,000
pTP07	New Solids Hdlg Facil (MHF/Digesters)	0	0	0	0	0	0	1,000	200,000	2,500,000	3,500,000	6,201,000	58,001,000
none	Primary Treatment Covers	0	0	0	0	0	0	0	1,000	25,000	0	26,000	26,000
pTP39	Alternative Energy Facilities Ph 2	0	0	0	0	0	0	0	2,500,000	3,300,000	500,000	6,300,000	6,300,000
none	Treatment Plant Planning - Long Term	0	0	0	0	0	0	0	300,000	300,000	300,000	900,000	1,500,000
pTP20	Nitrification	0	0	0	0	0	0	0	520,000	2,000,000	2,950,000	5,470,000	78,880,000
pTP34	Ozone Disinfection	0	0	0	0	0	0	0	50,000	500,000	1,500,000	2,050,000	19,150,000
pTP38	Treatment Plant Soil Remediation Ph 2	0	0	0	0	0	0	0	0	500,000	7,000,000	7,500,000	20,000,000
none	Treatment Plant Security Upgrade - LT	0	0	0	0	0	0	0	0	10,000	10,000	20,000	28,000
		732,000	691,000	925,000	1,035,000	575,000	425,000	431,000	3,871,000	9,390,000	16,015,000	34,090,000	192,884,000

Program and Sub-Program		Estimated Expenditures in the Capital Plan										CIP (10-Year) Total	Total Project Cost
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24		
Treatment Plant													
2 - One-Time Renovation													
7292	Switchgear Replacement - ph 2	100,000	240,000	450,000	240,000	0	0	0	0	0	0	1,030,000	1,336,800
7291	Pump & Blower Bldg Seismic Upgrade	100,000	2,550,000	750,000	0	0	0	0	0	0	0	3,400,000	3,836,300
7285	Primary Treatment Renovation	6,000,000	1,460,000	0	0	0	0	0	0	0	0	7,460,000	14,383,700
7289	POB Seismic Upgrade	0	0	0	150,000	500,000	750,000	0	0	0	0	1,400,000	1,536,700
pTP03	Plant Cyber Security	5,000	5,000	0	0	0	0	0	0	0	0	10,000	70,000
7297	Wet and Dry Scrubber Replacement	200,000	500,000	3,400,000	3,700,000	20,000	0	0	0	0	0	7,820,000	7,871,100
7304	PLC Sys Upgr - 12-13 thru 21-22	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	0	0	640,000	758,700
7308	Co-Gen Controls Upgrade	60,000	0	0	0	0	0	0	0	0	0	60,000	1,300,000
7309	DAF Tank Renovation	500,000	0	0	0	0	0	0	0	0	0	500,000	690,000
pTP15	Furnace Burner	0	1,000	1,000	21,000	800,000	1,600,000	0	0	0	0	2,423,000	2,473,000
7313	Solids Handling Equipment Evaluation	22,000	49,000	0	0	0	0	0	0	0	0	71,000	121,000
pTP18	Warehouse Seismic Upgrade	0	0	0	0	150,000	400,000	400,000	0	0	0	950,000	955,000
7286	Centrifuge & Cake Pump Upgrades	800,000	2,200,000	1,800,000	0	0	0	0	0	0	0	4,800,000	4,800,000
pTP41	Plant Control System Network Upgrades	80,000	80,000	80,000	80,000	0	0	0	0	0	0	320,000	320,000
pTP42	Plant Control System I/O Replacement	10,000	10,000	20,000	300,000	1,760,000	1,900,000	0	0	0	0	4,000,000	4,000,000
pTP44	Aeration System Renovation Ph 2	0	100,000	100,000	200,000	1,400,000	25,000	0	0	0	0	1,825,000	1,825,000
7307	Screenings Removal	0	50,000	2,700,000	3,800,000	2,900,000	0	0	0	0	0	9,450,000	9,450,000
pTP40	Secondary Process Improvements Ph 2	0	0	0	50,000	100,000	800,000	1,600,000	500,000	0	0	3,050,000	3,050,000
pTP19	Laboratory Seismic Upgrade	0	0	0	0	0	0	0	0	77,000	200,000	277,000	277,000
pTP36	SCB Seismic Improvements	0	0	0	0	0	0	0	0	200,000	1,000,000	1,200,000	7,200,000
		7,957,000	7,326,000	9,381,000	8,621,000	7,710,000	5,555,000	2,080,000	580,000	277,000	1,200,000	50,687,000	65,281,200
3 - Recurring Renovation													
7254	TP Cathodic Prot Sys Repl	10,000	10,000	0	0	0	0	0	0	0	0	20,000	571,300
7265	TP Equipment Replacement	50,000	50,000	100,000	0	0	0	0	0	0	0	200,000	1,268,100
pTP32	Plant Energy Optimization	15,000	0	0	0	0	0	0	0	0	0	15,000	90,000

Program and Sub-Program		Estimated Expenditures in the Capital Plan										CIP (10-Year) Total	Total Project Cost
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24		
Treatment Plant													
pTP30	Concrete Renovation	1,000	50,000	50,000	50,000	500,000	0	0	0	0	0	651,000	656,000
pTP06	Plant Electrical and Instr Repl	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	0	90,000	100,000
none	TP Facilities Renov Pgm - LT	50,000	100,000	100,000	100,000	490,000	500,000	500,000	500,000	500,000	0	2,840,000	2,890,000
pTP16	Coating Renovation	1,000	600,000	400,000	0	1,400,000	1,500,000	1,000,000	500,000	0	0	5,401,000	5,402,000
7310	Piping Renovations - phase 8	150,000	1,500,000	0	0	0	0	0	0	0	0	1,650,000	1,750,000
7314	Urgent Repairs Blanket Contract	10,000	10,000	10,000	10,000	0	0	0	0	0	0	40,000	50,000
pTP29	Pavement Renovation	1,000	50,000	50,000	50,000	50,000	50,000	0	0	0	0	251,000	256,000
pTP24	Laboratory Upgrades & Repair	48,000	50,000	0	0	60,000	50,000	50,000	60,000	60,000	60,000	438,000	438,000
pTP45	TP Electrical Cable Repl - LT	10,000	240,000	240,000	240,000	240,000	500,000	400,000	400,000	100,000	0	2,370,000	2,370,000
pTP37	Piping Reno and Repl Prog	0	0	1,000,000	500,000	100,000	200,000	2,500,000	1,500,000	450,000	0	6,250,000	6,250,000
none	TP Cathodic Prot Sys Repl - LT	0	0	100,000	100,000	100,000	100,000	100,000	100,000	50,000	50,000	700,000	700,000
pTP13	TP Equipment Replacement - LT	0	0	0	100,000	100,000	150,000	250,000	300,000	200,000	150,000	1,250,000	1,850,000
none	TP Protective Coating - LT	0	0	0	0	0	0	0	0	500,000	450,000	950,000	4,150,000
none	Plant Elect & Instr Repl - LT	0	0	0	0	0	0	0	0	0	10,000	10,000	100,000
		356,000	2,670,000	2,060,000	1,160,000	3,050,000	3,060,000	4,810,000	3,370,000	1,870,000	720,000	23,126,000	28,891,400
4 - Expansion													
none	Bar Screen for Third Wetwell	0	0	0	0	0	0	0	50,000	100,000	440,000	590,000	1,190,000
		0	0	0	0	0	0	0	50,000	100,000	440,000	590,000	1,190,000
	Treatment Plant Program Total	9,045,000	10,687,000	12,366,000	10,816,000	11,335,000	9,040,000	7,321,000	7,871,000	11,637,000	18,375,000	108,493,000	288,246,600

COLLECTION SYSTEM PROGRAM

The Collection System Program includes projects to provide renovation of the collection system infrastructure and to serve new development in the District's service area. Projects also provide improvements to pumping stations and force mains. These improvements provide capacity and renovation to reduce the likelihood of sewage overflows during dry and wet weather.

Renovation

The renovation program goal is to address recurring renovation needs. In prior years, renovation needs were identified by CSOD through their critical line segments list. This information is now augmented by a comprehensive TV inspection program of the entire collection system that is now funded through the District's Operations and Maintenance budget. This information is being utilized to develop improved estimates of the short and long term recurring renovation needs. The District's collection system contains pipe reaches of many material types, sizes, ages, and other installation conditions that must be evaluated and replaced on an appropriate cycle. This cycle is determined by the condition of the pipe.

Regulatory Compliance/Planning/Safety

For the past few years, the District has anticipated more stringent regulations with respect to the operation and maintenance of the collection system to reduce overflows. The local Regional Water Quality Control Board staff implemented such a program in 2005, and the State Board implemented a similar requirement in 2006. Both regulatory bodies require each collection system agency to have prepared a Sewer System Management Plan (SSMP). They require careful review and documentation of the District's continuing evaluation and planning for the collection system in the areas of capacity management, operation, and maintenance.

Deteriorating private sewer laterals are known to be a significant source of inflow and infiltration (I/I) throughout the wastewater industry. Addressing this issue will require substantial capital and extensive coordination. The District has been actively participating in discussions related to the reduction of private property I/I on the local and state levels. It is anticipated that more stringent regulations to address deteriorated private sewer laterals will be imposed in the not-too-distant future.

Expansion

As part of the ongoing Collection System Master Plan Update, the District's sewer system hydraulic model was updated; capacity deficiencies were identified and prioritized. Large capacity projects that are planned over the next ten years include trunk sewer improvements in locations in Pleasant Hill, along Lancaster Road and the Walnut Boulevard Corridor in Walnut Creek, Moraga Way in Orinda, in San Ramon (Schedule C Interceptor), and trunk sewers along Alhambra Avenue in Martinez. Developer sewers and other projects throughout the District relieve and expand capacity limited pipe sections.

Pumping Stations

Significant funds have been invested in the pumping stations over the last several years, and by now, all major pumping stations in the service area have been improved and/or renovated.

Collection System Renovation Projects in the 2014 Capital Improvement Plan:			
Project Title	**Year**	**Location**	**Description**
Mt. Diablo Boulevard Main Improvements	2022	Mount Diablo Blvd.	Rehabilitate or replace sewers within the Mount Diablo Blvd corridor in Walnut Creek, as identified in the Downtown Walnut Creek Facilities Plan.
Collection System Renovation Program	ongoing	Throughout the collection system	Systematically replace or renovate small diameter sewers to minimize overflows, limit the quantity of rainfall entering the collection system, control future maintenance requirements and costs, and improve the level of service provided (as measured by stoppages, private property damage, impacted traffic, entry onto private property) to the residents/ratepayers. The ongoing TV inspection program will be the major source of these future projects.
Cathodic Protection System	ongoing	Throughout the collection system	Survey, evaluate and rehabilitate cathodic protection systems throughout the collection system and pumping stations
Concrete Pipe Renovation	ongoing	Throughout the collection system	Identify, evaluate and schedule remediation for concrete pipes
Collection System Urgent Projects	ongoing	Throughout the collection system	Identify and restore sewers damaged or threatened by storms or found to be structurally deficient by CSO.
North Main Trunk improvements	2019	N. Main from Civic Dr. and Carlback Ave.	Rehabilitate or replace sewers along North Main between Civic Drive and Carlback Avenue in Walnut Creek, as identified in the Downtown Walnut Creek Facilities Plan.
Locust Street Improvements	2019	Locust Street in Walnut Creek	Rehabilitate or replace sewers within the Locust Street corridor in Walnut Creek, as identified in the Downtown Walnut Creek Facilities Plan.
A-line Relief-39 Inch Rehab	2021	A-line near Treatment Plant	Twenty million gallons of relief capacity for the existing A-Line near the Treatment Plant could be achieved by rehabilitating the old 39-inch Trunk No. 1.

Collection System Regulatory Compliance/Planning/Safety Projects in the 2014 Capital Improvement Plan:			
Project Title	**Year**	**Location**	**Description**
Manhole Remote Level Monitoring	ongoing	Throughout the collection system	Identification and modification of manholes with the installation of remote level monitoring products to alert dispatch or on-call crew members via cell phone of a potential overflow or stoppage.
Collection System Planning	ongoing	Throughout the collection system	Identifies, evaluates, and schedule short and long-term sewer capacity projects and provide design flow rates for major facility plans.

The Collection System Master Plan Update (2010) identified capacity deficiencies in the following trunk sewers. The expansion projects to correct these deficiencies are defined below.

Collection System Expansion Projects in the 2014 Capital Improvement Plan:			
Project Title	**Year**	**Location**	**Description**
Contractual Assessment Districts	ongoing	Throughout the service area.	Provides a financing mechanism for the extension of public sewers into areas which are currently served by septic tanks.
Trunk Sewer Expansion Program	ongoing	Throughout the collection system	Systematically upsize and increase the capacity of trunk sewers to prevent sewer overflows and accommodate planned growth as identified in the Collection System Master Plan.
Lancaster Road, Walnut Creek, TR 13-600	2019	Lancaster Road and Meadow Road	Replace approximately 5,100 feet of the existing trunk sewer with 15 to 18-inch lines
Moraga Way, Orinda TR10-200/300	2022	In El Camino Moraga, Del Rey School, Moraga Way, Orinda	Replace approximately 3,400 feet of existing main and trunk sewers with 12 to 18-inch lines
Pleasant Hill Road Corridor	2022	Pleasant Hill Road between Mercury Way and near Virginia Hills Drive	Replace approximately 2,800 feet of the existing trunk sewer with an 18-inch line
Walnut Blvd, Walnut Creek, TR 29-200 - phase1	2023	In Walnut Boulevard from Homestead Avenue to Norlyn Drive	Replace approximately 7,000 feet of the existing trunk sewer with 18 to 24-inch lines
Martinez Alhambra Avenue Trunks	2018	In Alhambra Avenue from Highway 4 to C Street	Replace approximately 5,700 feet of the existing trunk sewer with 18 to 24-inch lines

Lafayette – Happy Valley Road	2020	In Happy Valley Road from Baker to Franklin	Replace approximately 3200 feet of the existing trunk sewer with 15 to 18-inch lines
Walnut Creek – Palmer Road	2023	In Palmer Road between Sylvan Road and Hawthorne Drive	Replace approximately 1,000 feet of the existing trunk sewer with 15 inch line
A-line Relief Interceptor – phase 2B	2024	From Galaxy Way to Willow Pass Road along the bank of Walnut Creek.	Approximately 4,000 feet of new 72-inch line
Development Sewerage	ongoing	Throughout the collection system	Provides for capitalization of District labor and other expenses for planning, design, and construction of developer installed and contributed main sewer facilities.
Diablo Road, Danville, Trunk 35-400 – Ph 1	2024	Easement south of Highbridge Ln to north of Green Valley Creek	Replace approximately 600 feet of existing trunk sewer with 33-inch line.
Lafayette Lower Pleasant Hill Road Trunk	2024	Pleasant Hill Road from Old Tunnel Road to north of Olympic Blvd.	Replace approximately 3,500 feet of existing trunk sewer with 21-inch line.
Nelson Avenue Sewer Replacement	2024	Easement from Bates Ave to Nelson Ave in Concord	Replace approximately 1,700 feet of existing trunk sewer with 18-inch line.
San Ramon Schedule C Interceptor – Ph 2	2024	San Ramon between Norris Canyon Dr and St. John Court	Replace approximately two miles of 36-inch gravity sewer.

Collection System Pumping Stations Projects in the 2014 Capital Improvement Plan:		
Project Title	**Year**	**Description**
Lower Orinda Pumping Station Force Mains	2018	Evaluate the condition of the existing force mains, implement any needed rehabilitation and install a third force main for reliability.
Orinda Crossroads Pumping Station Force Mains	2019	Evaluate the condition of the existing force mains and implement any needed rehabilitation.
Moraga Pumping Station Force Mains	2022	Evaluate the condition of the existing force mains and implement any needed rehabilitation.
Concord Industrial Pumping Station Replacement	2022	Evaluate the flows from the North Concord service area and additional flows that may come from the development of the Concord Naval Weapons Station. This information will be utilized to install a new station in the same or different location. Evaluate elimination of the Clyde and Bates Avenue Pumping Stations.
Clyde Parallel Force Main	2023	Evaluate the potential to eliminate the Clyde Pumping Station as the Concord Naval Weapons Station is developed. If the station cannot be eliminated, a new parallel force main will be constructed to insure reliable operation of the pumping station.
PS Equipment & Piping Replacement	ongoing	Replace or recondition failed and obsolete pumps, piping, valves, electrical, instrumentation, and other support equipment
Pump Station Safety Improvements Program	ongoing	Investigate the presence of hazardous materials requiring abatement and perform remediation efforts to reduce the potential for exposure
Buchanan North PS Upgrades	2020	In case the Buchanan North PS is not replaced by a gravity sewer, it will need to be renovated.
Bates Blvd PS Upgrades	2021	Evaluate and implement needed improvements.
Moraga Pumping Station Grinder	2017	Evaluate and install a grinder to eliminate rag and disposable wipe clogging issues.
Moraga Diesel Replacement	2024	Evaluate condition and complete rehabilitation or replacement of the existing diesel engine in order to allow adequate runtime and comply with emission requirements.

Ten-year Program Estimated Expenditures – Collection System

		Estimated Expenditures in the Capital Plan											
Program and Sub-Program		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	CIP (10-Year) Total	Total Project Cost
Collection System													
1 - Renovation													
5991	Pleasant Hill Sewer Renovations - ph 2	50,000	200,000	2,900,000	0	0	0	0	0	0	0	3,150,000	3,400,000
5976	Diablo Renovations - ph 2	5,000	0	0	0	0	0	0	0	0	0	5,000	3,563,000
8404	Lafayette Sewer Renovation - ph 8	5,000	0	0	0	0	0	0	0	0	0	5,000	2,304,500
5982	Pipeburst Blanket Contract	75,000	50,000	50,000	50,000	0	0	0	0	0	0	225,000	687,200
5999	CIPP Blanket Contract	75,000	50,000	50,000	50,000	0	0	0	0	0	0	225,000	372,100
8405	2013 & 2014 CIPP Project	50,000	0	0	0	0	0	0	0	0	0	50,000	1,865,700
8410	Cathodic Prot Sys Repl - 12-13 thru 21-22	50,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	0	0	750,000	806,900
8415	Martinez Sewer Renovations Phase 4	1,700,000	100,000	0	0	0	0	0	0	0	0	1,800,000	2,276,400
8411	North Orinda Sewer Renovations - ph 5	2,675,000	0	0	0	0	0	0	0	0	0	2,675,000	3,422,700
8413	Walnut Creek Sewer Renovations - ph 10	2,700,000	0	0	0	0	0	0	0	0	0	2,700,000	3,373,700
8417	Survey Monument Installation	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	0	0	400,000	500,700
pCS40	Coll Sys Urgent Proj - 2013-14 thru 22-23	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	0	0	400,000	450,000
8421	Lafayette Sewer Renovations - ph 9	450,000	2,500,000	300,000	0	0	0	0	0	0	0	3,250,000	3,350,000
pCS22	Concrete Pipe Renovation Program	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	0	0	8,000	9,000
8423	North Orinda Sewer Renovations - ph 6	100,000	150,000	3,000,000	0	0	0	0	0	0	0	3,250,000	3,250,000
pCS16	Collection System Renovation Program	25,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	0	0	725,000	775,000
none	Lafayette Sewer Renovations - ph 10	55,000	150,000	3,100,000	200,000	0	0	0	0	0	0	3,505,000	3,505,000
8424	CIPP Lining Project	800,000	3,000,000	0	0	0	0	0	0	0	0	3,800,000	3,800,000
8425	Cathodic Protection Ph 1	450,000	50,000	0	0	0	0	0	0	0	0	500,000	500,000
8422	Walnut Creek Sewer Renovations - ph 11	100,000	150,000	2,900,000	0	0	0	0	0	0	0	3,150,000	3,150,000
none	Walnut Creek Sewer Renovations - ph 12	0	0	250,000	2,950,000	0	0	0	0	0	0	3,200,000	3,200,000
none	Diablo Renovations - ph 3	0	0	300,000	2,800,000	0	0	0	0	0	0	3,100,000	3,100,000
none	Lafayette Sewer Renovations - ph 11	0	0	250,000	3,000,000	0	0	0	0	0	0	3,250,000	3,250,000
none	South Orinda Sewer Renovations - ph 6	0	0	250,000	2,900,000	0	0	0	0	0	0	3,150,000	3,150,000
none	Lafayette Sewer Renovations - ph 12	0	0	0	300,000	3,100,000	0	0	0	0	0	3,400,000	3,400,000
none	Walnut Creek Sewer Renovations - ph 13	0	0	0	250,000	2,900,000	0	0	0	0	0	3,150,000	3,150,000
none	South Orinda Sewer Renovations - ph 7	0	0	0	300,000	3,000,000	0	0	0	0	0	3,300,000	3,300,000
pCS32	Pleasant Hill Sewer Renovations - ph 3	0	0	0	300,000	2,800,000	0	0	0	0	0	3,100,000	3,100,000
none	South Orinda Sewer Renovations - ph 8	0	0	0	0	300,000	1,800,000	1,000,000	0	0	0	3,100,000	3,100,000
none	Martinez Sewer Renovations - ph 5	0	0	0	0	213,000	3,100,000	0	0	0	0	3,313,000	3,313,000
none	Pleasant Hill Sewer Renovations - ph 4	0	0	0	0	300,000	2,800,000	0	0	0	0	3,100,000	3,100,000
none	North Orinda Sewer Renovations - ph 7	0	0	0	0	300,000	2,700,000	0	0	0	0	3,000,000	3,000,000
none	Walnut Creek Sewer Renovations - ph 14	0	0	0	0	1,400,000	2,500,000	0	0	0	0	3,900,000	3,900,000
pCS23	Walnut Creek Civic Center Main Improvs	0	0	0	0	0	300,000	3,500,000	0	0	0	3,800,000	3,800,000
none	Locust Street Improvements	0	0	0	0	0	0	450,000	2,750,000	0	0	3,200,000	3,200,000
none	North Main Trunk Improvements	0	0	0	0	0	0	50,000	600,000	3,300,000	0	3,950,000	3,950,000
none	Walnut Creek Sewer Renovations - ph 15	0	0	0	0	0	0	250,000	2,600,000	0	0	2,850,000	2,850,000
none	A-Line Relief-39 Inch Rehab	0	0	0	0	0	0	200,000	2,600,000	3,100,000	0	5,900,000	5,900,000

Program and Sub-Program		Estimated Expenditures in the Capital Plan										CIP (10-Year) Total	Total Project Cost
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24		
Collection Program													
pCS06	Mount Diablo Blvd Main Improvements	0	0	0	0	0	0	0	0	200,000	3,000,000	3,200,000	3,200,000
none	Collection System Reno Program - LT	0	0	0	0	0	0	0	0	2,000,000	6,000,000	8,000,000	8,000,000
none	Lafayette Sewer Renovations - ph 13	0	0	0	0	0	0	0	0	200,000	600,000	800,000	3,000,000
none	Walnut Creek Sewer Renovations - ph 17	0	0	0	0	0	0	0	0	0	200,000	200,000	3,750,000
none	Walnut Creek Sewer Renovations - ph 16	0	0	0	0	0	0	0	0	0	350,000	350,000	3,350,000
pCS99	Watershed 44 Creek Xing Stabilization	0	0	0	0	0	0	0	0	0	50,000	50,000	50,000
		9,466,000	6,701,000	13,651,000	13,401,000	14,614,000	13,501,000	5,751,000	8,851,000	8,800,000	10,200,000	104,936,000	124,474,900
2 - Reg. Compliance/Planning/Safety													
5962	Manhole Remote Level Monitoring	120,000	0	0	0	0	0	0	0	0	0	120,000	350,700
5993	Forcemain Assessment	90,000	85,000	0	0	0	0	0	0	0	0	175,000	304,800
8418	Coll Sys Modeling Upgr 12-13 thru 17-18	250,000	250,000	100,000	100,000	0	0	0	0	0	0	700,000	951,100
8419	Coll Sys Planning - FY2013-14 to 2022-23	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	0	1,260,000	1,400,000
none	Manhole Remote Level Monitoring - LT	0	100,000	100,000	100,000	100,000	100,000	0	0	0	0	500,000	500,000
none	Collect Sys Planning - FY 23-24 to 32-33	0	0	0	0	0	0	0	0	0	140,000	140,000	1,400,000
		600,000	575,000	340,000	340,000	240,000	240,000	140,000	140,000	140,000	140,000	2,895,000	4,906,600
3 - Expansion													
8402	Contractual Assessment Districts	200,000	500,000	500,000	500,000	500,000	500,000	0	0	0	0	2,700,000	4,200,000
pCS33	Trunk Sewer Expansion Program	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	0	0	8,000	9,000
8412	Pleasant Hill - Grayson Creek Trunk	800,000	5,000,000	100,000	0	0	0	0	0	0	0	5,900,000	6,481,000
8420	Devt Sewerage - 2013-14 thru 17-18	700,000	700,000	700,000	700,000	0	0	0	0	0	0	2,800,000	3,481,000
none	Martinez Alhambra Avenue Trunks	0	0	0	0	200,000	300,000	3,000,000	50,000	0	0	3,550,000	3,550,000
pCS17	Devt Sewerage 2018-19 thru 2022-23	0	0	0	0	700,000	800,000	800,000	800,000	800,000	0	3,900,000	3,900,000
pCS08	Lancaster Rd WC, Tr 13-600	0	0	0	0	0	300,000	3,000,000	0	0	0	3,300,000	3,300,000
none	Lafayette - Happy Valley Road Sewer	0	0	0	0	0	100,000	2,800,000	0	0	0	2,900,000	2,900,000
pCS18	Trunk Sewer Expansion Program - LT	0	0	0	0	0	1,000	1,000	1,000	1,000	1,000	5,000	10,000
pCS20	Moraga Way Orinda, Tr 10-200/300	0	0	0	0	0	0	500,000	2,400,000	0	0	2,900,000	2,900,000
pCS38	Pleasant Hill Road Corridor	0	0	0	0	0	0	800,000	2,000,000	0	0	2,800,000	2,800,000
none	Contractual Assessment Districts - LT	0	0	0	0	0	0	500,000	500,000	500,000	500,000	2,000,000	4,500,000
none	A-Line-Phase 2B	0	0	0	0	0	0	50,000	0	100,000	1,500,000	1,650,000	12,950,000
pCS10	Walnut Creek - Palmer Road	0	0	0	0	0	0	50,000	300,000	2,000,000	0	2,350,000	2,350,000
none	WC-Walnut Blvd Corr-Trunk 29-200	0	0	0	0	0	0	0	300,000	2,200,000	0	2,500,000	2,500,000
none	Diablo Rd Dan, Tr 35-400 Phase 1	0	0	0	0	0	0	0	0	100,000	260,000	360,000	360,000
none	Lafayette Lower Pleasant Hill Road Trunk	0	0	0	0	0	0	0	0	0	257,000	257,000	257,000
none	Danville-Diablo Road Corridor	0	0	0	0	0	0	0	0	100,000	500,000	600,000	600,000
none	Nelson Ave Sewer Repl	0	0	0	0	0	0	0	0	70,000	580,000	650,000	650,000
pCS09	San Ramon Sched C Interceptor - ph 2	0	0	0	0	0	0	0	0	500,000	1,600,000	2,100,000	2,100,000
none	Devt Sewerage 2023-24 thru 27-28	0	0	0	0	0	0	0	0	0	800,000	800,000	4,000,000
		1,701,000	6,201,000	1,301,000	1,201,000	1,401,000	2,002,000	11,502,000	6,352,000	6,371,000	5,998,000	44,030,000	63,798,000
4 - Pumping Stations													
5941	PS Equip & Piping Repl	10,000	75,000	75,000	0	0	0	0	0	0	0	160,000	782,500
8406	Pump Station Security Improvements	245,000	0	0	0	0	0	0	0	0	0	245,000	305,000
8408	Pumping Stations Master Plan	80,000	5,000	50,000	95,000	0	0	0	0	0	0	230,000	350,000

Program and Sub-Program		Estimated Expenditures in the Capital Plan										CIP (10-Year) Total	Total Project Cost
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24		
Collection Program													
pCS31	Pump Station Hazard Identification	5,000	0	0	0	0	0	0	0	0	0	5,000	30,000
pCS34	Misc. Force Main Improvements	0	0	40,000	0	0	0	0	0	0	0	40,000	40,000
pCS29	Fairview / Maltby Upgrades	0	0	0	50,000	300,000	0	0	0	0	0	350,000	350,000
pCS28	Flush Kleen Pumping Station Improv	0	0	0	50,000	300,000	0	0	0	0	0	350,000	350,000
pCS36	Pumping Station Arc Flash Stdy	110,000	0	0	0	0	0	0	0	0	0	100,000	100,000
none	Pump Station Safety Improv - LT	0	100,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	580,000	580,000
8414	Moraga Pumping Station Grinder	0	60,000	120,000	950,000	0	0	0	0	0	0	1,130,000	1,130,000
pCS24	Lower Orinda PS Force Main	0	0	0	900,000	800,000	0	0	0	0	0	1,700,000	1,700,000
none	PS Equip & Piping Repl - LT	0	0	0	75,000	75,000	75,000	75,000	75,000	75,000	75,000	525,000	750,000
none	Buchanan North PS Upgrades	0	0	0	0	75,000	250,000	0	0	0	0	325,000	325,000
none	Bates Blvd PS Upgrades	0	0	0	0	0	50,000	250,000	0	0	0	300,000	300,000
none	Moraga Pumping Station Force Main	0	0	0	0	0	0	250,000	1,300,000	1,200,000	0	2,750,000	2,750,000
none	Clyde Parallel Force Main	0	0	0	0	0	0	0	100,000	800,000	0	900,000	900,000
none	Moraga Diesel Repl	0	0	0	0	0	0	0	0	0	150,000	150,000	1,150,000
none	Concord Industrial Pumping Station Repl	0	0	0	0	0	0	0	0	0	300,000	300,000	6,200,000
pCS39	Orinda Crossroads PS Force Main	0	0	0	0	0	0	0	0	0	350,000	350,000	4,850,000
		450,000	240,000	345,000	2,180,000	1,610,000	435,000	635,000	1,535,000	2,135,000	935,000	10,500,000	23,494,300
	Collection System Program Total	12,217,000	13,717,000	15,637,000	17,122,000	17,865,000	16,178,000	18,028,000	16,878,000	17,446,000	17,273,000	162,361,000	216,673,800

GENERAL IMPROVEMENTS PROGRAM

This General Improvements Program is dedicated to funding the property, equipment, office and corporation yard improvements, map production, and information technology needs of the District. The General Improvements Program also provides funding for activities associated with the capital program such as capital project legal expenses and preparation of the CIB/CIP each year.

The focus of the General Improvements Program over the next ten years will be the equipment budget, improvements in the District's management information systems, seismic upgrades to various District buildings, and development of an Asset Management Program.

While consistent investment in our treatment and collection systems has occurred over the last 30 years, the District office and other buildings have not had consistent capital improvements. With most of these buildings over 25 years of age, the CIP includes more projects for renovations of the interiors and exteriors of the buildings, such as upgrading kitchen and lunch rooms, painting or sealing walls, replacing ceiling tiles, upgrading lighting fixtures and replacing worn or outdated flooring and furniture, as well as bringing the buildings up to current seismic standards.

General Improvements Projects in the 2014 Capital Improvement Plan		
Project Title	**Year**	**Description**
CSO Vehicle Maintenance Building	2018	Improvements to the CSO Vehicle Maintenance Building and the attached office structure were not included in the new CSOD Facility Project and will be undertaken separately. This project will evaluate alternatives for repair or replacement of the office building structure attached to the vehicle maintenance structure. Originally built in 1972, the office building has experienced significant differential settlement in the floor slab in recent years that needs to be addressed.
HOB Improvements – Long Term	2022	Provide capital improvements to the HOB facilities (interior and exterior) in Martinez.
General Security and Access	ongoing	This project includes installing alarm systems, adding gates in the perimeter security fencing, upgrading security cameras, improving general area lighting, installing fencing and signage.

Ten-year Program Estimated Expenditures – General Improvements Program

		Estimated Expenditures in the Capital Plan										CIP (10-Year) Total	Total Project Cost
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24		
1 - Vehicles & Equipment													
9999	Cap Proj Clearing	2,800	1,000	1,000	1,000	0	0	0	0	0	0	5,800	38,300
8515	Vehicles & Equipt Acquisition 2014-15	617,200	0	0	0	0	0	0	0	0	0	617,200	619,000
pGI03	Vehicles and Equipt Acquisition - LT	0	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	4,500,000	5,000,000
		620,000	501,000	501,000	501,000	500,000	500,000	500,000	500,000	500,000	500,000	5,194,000	5,657,300
2 - Management Information Systems													
8227	GDI - Treatment Plant	150,000	0	0	0	0	0	0	0	0	0	150,000	522,300
8232	GDI-SMMS Replacement	300,000	0	0	0	0	0	0	0	0	0	300,000	1,001,400
none	Information Tech Devt - long term	1,000,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	5,500,000	5,500,000
		1,450,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	5,950,000	7,023,700
3 - Projects													
8217	Capital Improvement Plan and Budget	100,000	100,000	0	0	0	0	0	0	0	0	200,000	1,018,800
none	Capital Improvement Plan and Budget	0	0	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	880,000	1,100,000
8223	District Property Safety Improvements	20,000	0	0	0	0	0	0	0	0	0	20,000	279,600
8207	General Security Access	45,000	0	0	0	0	0	0	0	0	0	45,000	103,000
pGI03	General Security - 2015-16 thru 24-25	0	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	45,000	50,000
8226	Seismic Improvements for HOB	1,000	0	0	0	0	0	0	0	0	0	1,000	5,940,900
8230	Capital Legal Services - 2010 to 2018	70,000	70,000	70,000	70,000	0	0	0	0	0	0	280,000	407,900
none	Capital Legal Services - LT	0	0	0	0	70,000	70,000	70,000	70,000	70,000	70,000	420,000	630,000
8233	CSOD Facilities Improvements	30,000	30,000	30,000	50,000	50,000	50,000	50,000	0	0	0	290,000	456,900
none	CSOD Facilities Improvements - LT	0	0	0	0	0	0	0	50,000	50,000	50,000	150,000	500,000
8234	HOB Improvements 12-13 thru 21-22	50,000	50,000	50,000	95,000	95,000	95,000	95,000	95,000	0	0	625,000	944,500
none	HOB Improvements 22-23 thru 31-32	0	0	0	0	0	0	0	0	95,000	95,000	190,000	950,000
8236	District Easements - FY13-14 thru 22-23	65,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	0	665,000	740,000
pGI02	District Easements - FY 23-24 thru	0	0	0	0	0	0	0	0	0	75,000	75,000	750,000
8237	Buffer and Rental Property Improvements	39,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	0	0	249,000	279,000
none	Buffer & Rental Property Improv - LT	0	0	0	0	0	0	0	0	30,000	30,000	60,000	270,000
pGI05	POD Office Improvements - LT	50,000	70,000	50,000	50,000	45,000	45,000	45,000	45,000	45,000	45,000	490,000	490,000
8235	Permit Software Evaluation	25,000	10,000	0	0	0	0	0	0	0	0	35,000	35,000
none	CSO Vehicle Maint Bldg	0	30,000	70,000	375,000	0	0	0	0	0	0	475,000	475,000
		495,000	470,000	490,000	860,000	480,000	480,000	480,000	480,000	480,000	480,000	5,195,000	15,420,600

		Estimated Expenditures in the Capital Plan										CIP (10-Year) Total	Total Project Cost
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24		
4 –Asset Management Program													
8238	Asset Management Program Development	700,000	500,000	500,000	500,000	500,000	500,000	110,000	110,000	60,000	60,000	3,540,000	3,540,000
General Improvements Program Total		3,265,000	1,971,000	1,991,000	2,361,000	1,980,000	1,980,000	1,590,000	1,590,000	1,540,000	1,540,000	19,879,000	31,710,800

RECYCLED WATER PROGRAM

The Recycled Water Program includes projects to meet the District's goal of developing additional cost-effective recycled water customers.

Capital expenditures over the next ten years are primarily focused on planning to develop a large-scale industrial reuse project (such as the refineries or power plant use) and construction of the Concord Landscape Project, which was awarded state and federal grant funding. Budget is also included for completing the remaining connections to landscape irrigation customers in the Zone 1 Project Area located in Pleasant Hill, Concord, and Martinez near the I-680 freeway, and for planning work associated with providing recycled water to the proposed development at the Concord Naval Weapons Station site. No budget is currently provided for implementation of a large-scale industrial reuse project; however, budget is included for planning work and for continuing efforts to obtain outside funding assistance.

Recycled Water Projects in the 2014 Capital Improvement Plan		
Project Title	**Year**	**Description**
Recycled Water Treatment Facilities Improvements	2015	This project will investigate and implement improvements to the District's Recycled Water Treatment Facilities.

Ten-year Program Estimated Expenditures – Recycled Water Program

		Estimated Expenditures in the Capital Plan										CIP (10-Year) Total	Total Project Cost
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24		
Recycled Water													
1 - Urban Landscaping													
7261	REW - Cathodic Prot Sys Repl	1,000	5,000	0	0	0	0	0	0	0	0	6,000	25,700
7259	Recycled Water Planning	50,000	35,000	35,000	0	0	0	0	0	0	0	120,000	1,675,200
7279	Concord Naval Weapons REW	1,000	5,000	5,000	5,000	5,000	0	0	0	0	0	21,000	280,900
7300	Refinery Recycled Water Project	80,000	300,000	240,000	230,000	150,000	240,000	0	0	0	0	1,240,000	1,396,400
7299	Concord Landscape Project	370,000	0	0	0	0	0	0	0	0	0	370,000	4,268,300
7306	Zone 1 ReW - ph 1C - 2012 to 2022	50,000	100,000	100,000	60,000	50,000	105,000	365,000	360,000	355,000	35,000	1,580,000	1,681,000
none	Recycled Water Treatment Facil Improv	0	42,000	42,000	60,000	150,000	0	0	0	0	0	294,000	294,000
none	RW - Cathodic Prot Sys Repl LT	0	0	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	40,000	50,000
none	Recycled Water Planning - phase 1B	0	0	0	200,000	200,000	200,000	195,000	200,000	200,000	450,000	1,645,000	2,245,000
none	Recycled Water Loop System	0	0	0	0	0	0	0	0	0	5,000	5,000	1,955,000
none	Recycled Water - Walnut Creek, A-Line	0	0	0	0	0	0	0	0	0	5,000	5,000	5,805,000
none	Recycled Water - North Concord	0	0	0	0	0	0	0	0	0	5,000	5,000	1,427,000
none	Recycled Water - Martinez	0	0	0	0	0	0	0	0	0	5,000	5,000	2,413,000
		552,000	487,000	427,000	560,000	560,000	550,000	565,000	565,000	560,000	510,000	5,336,000	23,516,500
2 - Industrial													
none	Recycled Water - Industrial	0	0	0	0	0	0	0	0	0	5,000	5,000	20,005,000
		0	0	0	0	0	0	0	0	0	5,000	5,000	20,005,000
	Recycled Water Program Total	552,000	487,000	427,000	560,000	560,000	550,000	565,000	565,000	560,000	515,000	5,341,000	43,521,500

Ten-year Program Estimated Expenditures – All Programs

Program	Estimated Expenditures in the Capital Plan										CIP (10-Year) Total	Total Project Cost
	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24		
Treatment Plant Program	9,045,000	10,687,000	12,366,000	10,816,000	11,335,000	9,040,000	7,321,000	7,871,000	11,637,000	18,375,000	108,422,000	288,175,600
Collection System Program	12,217,000	13,717,000	15,637,000	17,122,000	17,865,000	16,178,000	18,028,000	16,878,000	17,446,000	17,273,000	162,361,000	216,673,800
General Improvements Program	3,265,000	1,971,000	1,991,000	2,361,000	1,980,000	1,980,000	1,590,000	1,590,000	1,540,000	1,540,000	19,879,000	31,710,800
Recycled Water Program	552,000	487,000	427,000	560,000	560,000	550,000	565,000	565,000	560,000	515,000	5,341,000	43,521,500
CAPITAL PROGRAM TOTAL	$25,079,000	$26,862,000	$30,421,000	$30,859,000	$31,740,000	$27,748,000	$27,504,000	$26,904,000	$31,183,000	$37,703,000	$296,003,000	$580,081,700