



HETCH HETCHY
WATER SYSTEM IMPROVEMENT PROGRAM



QUARTERLY REPORT

Local Projects
Q4 FY 2011 | 2012
April 2012 — June 2012

Rebuilding Today for a Better Tomorrow

Published 08/09/2012

Quarterly Report - Q4 FY2011/2012

Water System Improvement Program - Local Projects

TABLE OF CONTENTS

- 1. Program Description**
- 2. Program Status**
- 3. Program Cost Summary**
- 4. Program Schedule Summary**
- 5. Project Performance Summary**
- 6. Projects Not Within Budget and/or Schedule**
- 7. On-Going Construction**
- 8. Projects in Close-Out**
- 9. Completed Projects**

APPENDICES

- A. Project Descriptions**
- B. WSIP Budget and Expenditures Histogram**
- C. WSIP 2011 Approved Project-Level Schedule**
- D. Projects Within Budget and Schedule**
- E. List of Acronyms**

1. PROGRAM DESCRIPTION

The Water System Improvement Program (WSIP) is a \$4.6 billion dollar, multi-year capital program to upgrade the City of San Francisco's regional and local drinking water systems. The program will deliver improvements that enhance the City's ability to provide reliable, affordable, high quality drinking water to its 26 wholesale customers and regional retail customers in Alameda, Santa Clara, and San Mateo Counties, and to 800,000 retail customers in San Francisco, in an environmentally sustainable manner. The WSIP is structured to cost-effectively meet water quality requirements, improve seismic and delivery reliability, and achieve water supply goals.

Built in the early to mid-1900s, many components of the water system are nearing the end of their working life, with crucial facilities crossing or in close proximity to three major earthquake faults. The San Francisco Public Utilities Commission (SFPUC) initiated the WSIP to repair, replace, and seismically upgrade the system's deteriorating pipelines, tunnels, dams, reservoirs, pump stations, storage tanks, and treatment facilities.

The program consists of 35 local projects located within San Francisco and 46 regional projects spread over seven different counties from the Sierra foothills to San Francisco. Local projects only benefit San Francisco residents whereas regional projects benefit both City residents and the 26 wholesale agencies that receive water from the SFPUC. The management of local projects is divided into 4 sub-programs -Reservoirs, Pump Stations / Tanks, Pipelines / Valves, and Miscellaneous.

The Local program originally included local water supply projects. These projects provide access to groundwater supplies for the potable

system, deliver recycled water supplies for non-potable uses, and address water quality and water level issues at Lake Merced. The management and implementation of the five (5) local water supply projects was transferred from the WSIP to the Water Enterprise Capital Improvement Program (CIP) as of July 1, 2011.

The WSIP is funded through the issuance of revenue bonds. Local Measures A and E, which were approved by San Francisco voters in November 2002, allowed for the financing of improvements to the City's water system using revenue bonds and/or other forms of revenue financing. Increases in the water rates of retail and wholesale customers will be used to pay back the debt service on the bonds.

The program budget and schedule were originally adopted by the San Francisco Public Utilities Commission on March 1, 2003. The program at the time was referred to as the Capital Improvement Program (CIP). The scope of the CIP was changed significantly following the adoption of Levels of Service (LOS) goals in early 2005. The program changes were so substantial that the program was renamed the WSIP and a new program budget and schedule were adopted on November 29, 2005. Since the scope of the 2005 Revised WSIP is in general representative of the program being implemented today, the 2005 budget and schedule are considered the "Baseline Budget and Schedule."

Subsequently, the WSIP Baseline Budget and Schedule were revised in 2007, 2009 and 2011, and they were approved by the San Francisco Public Utilities Commission on February 26, 2008, July 28, 2009, and July 12, 2011, respectively. Refer to Appendix A for a scope description of all the local projects included in the WSIP.

Program Revision	Commission Approval	Budget (\$Million)	Schedule(*)
2003 (Original)	March 1, 2003	\$3,628	03/15/16
2005 (Baseline)	November 29, 2005	\$4,343	06/30/14
2007 (Revised)	February 26, 2008	\$4,392	12/18/14
2009 (Revised)	July 28, 2009	\$4,586	12/04/15
2011 (Latest Approved)	July 12, 2011	\$4,586	07/29/16

* Final Program Completion Date

2. PROGRAM STATUS

This fourth (4th) Quarterly Report for Fiscal Year (FY) 2011-2012 presents the progress made on the WSIP local projects between April 1, 2012 and June 30, 2012. The program’s schedule and budget were last approved by the San Francisco Public Utilities Commission (SFPUC or Commission) on July 12, 2011. The progress made on the regional projects of the WSIP is presented in a separate quarterly report.

Figure 2.1 shows the total Approved Budget for the local projects remaining in each phase of the program as of June 30, 2012. The number of projects currently active in each phase is shown in parenthesis.

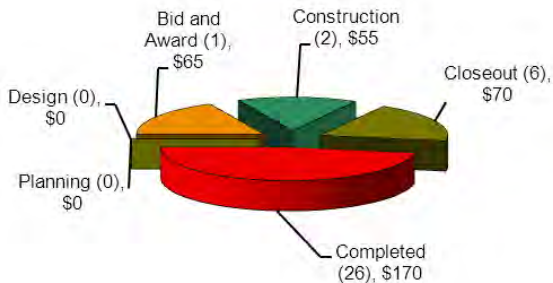


Figure 2.1 Total Approved Budget for Projects Active in Each Phase (\$Million)

Figure 2.2 shows the number of local projects in the following stages of the program as of June 30, 2012: Pre-construction, Construction, and Post-construction.

Figure 2.3 summarizes the environmental review and permitting status of the WSIP 35 local projects as of June 30, 2012.

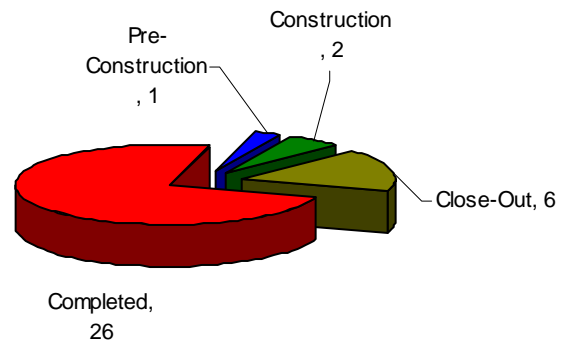


Figure 2.2 Number of Projects in Pre-construction, Construction, and Post-construction

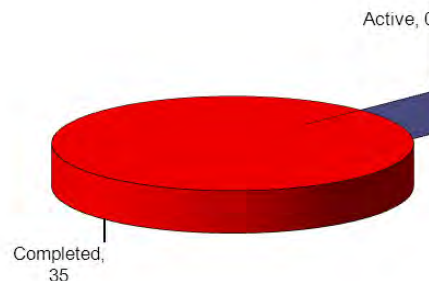


Figure 2.3 Program Environmental and Permitting Status

3. PROGRAM COST SUMMARY

Table 3.1 provides an overall program-level cost summary of the WSIP Local Program. It shows the Expenditures to Date; the 2005 Baseline, 2011 Approved, Current Approved and Q4/FY11-12 Forecasted Budgets; and the Cost Variance between the Current Approved and Forecasted Budgets.

The total Current Approved WSIP Budget (including Regional and Local Programs, Local Water Supply Projects, Program Management Reserve, and Financing Costs) is \$4,586 million and the currently Forecasted Cost at completion is \$4,563 million (\$21.9 million under the Current Approved Budget). The Current Approved WSIP Budget for the Local Improvement Projects is \$361 million and the current Forecasted Cost at completion is \$339 million (\$21.8 million under

the Current Approved Budget). The Current Approved WSIP Budget for the Regional Program is \$3,337 million and the current Forecasted Cost at completion is \$3,349 million (\$11.9 million over the Current Approved Budget). Refer to Appendix B for a graphical representation of how the WSIP budget and actual expenditures have changed over time.

Table 3.1 Program Cost Summary

Cost Categories	Expenditures To Date (\$ Million) (A)	2005 Baseline Budget (\$ Million) (B)	2011 Approved Budget (\$ Million) (C)	Current ⁽⁵⁾ Approved Budget (\$ Million) (D)	Q4/FY11-12 Forecasted Cost (\$ Million) (E)	Cost Variance (\$ Million) (F = D - E)
Local Improvement Projects	\$287	\$383	\$360.6	\$360.6	\$338.8	\$21.8
Construction Cost ⁽¹⁾	\$203	\$289	\$264.2	\$264.2	\$243.2	\$21.0
Program Delivery Cost ⁽²⁾	\$83	\$91	\$95.4	\$95.4	\$94.6	\$0.8
Other Costs ⁽³⁾	\$1	\$3	\$1.0	\$1.0	\$1.0	\$0.0
Regional Subtotal	\$1,924	\$3,407	\$3,310.5	\$3,336.9	\$3,348.8	(\$11.9)
Regional and Local Total	\$2,211	\$3,791	\$3,671.1	\$3,697.5	\$3,687.6	\$9.9
Local Water Supply Projects⁽⁴⁾	\$33	-	\$281.3	\$281.3	\$281.2	\$0.1
Program Management Reserve (PMR)⁽⁷⁾	-	-	\$161.4	\$135.0	\$123.1	\$11.9
Finance	-	\$552	\$471.7	\$471.7	\$471.7	\$0.0
PROGRAM TOTAL⁽⁸⁾	\$2,245	\$4,343	\$4,585.6	\$4,585.6	\$4,563.6	\$21.9
PMR Current Balance			\$144.36			
PMR Released to Date			\$17.07			

Notes:

- Construction Cost** includes the Construction Base Bid, Construction Contingency and owner-provided equipment/material.
- Delivery Cost** includes program and project management, planning, environmental (CEQA, permitting, construction compliance), design, construction management, and engineering support during construction.
- Other Costs** include environmental mitigation, art enrichment, security Improvements and real estate expenses.
- Local Water Supply Projects managed as part of the Water Enterprise Capital Improvement Program (CIP) are (1) Lake Merced Water Level Restoration, (2) San Francisco Groundwater Supply, (3) San Francisco Westside Recycled Water, (4) Harding Park Recycled Water, and (5) San Francisco Eastside Recycled Water.
- The budget and schedule approved as part of the June 2011 Revised WSIP, plus any additional budget and schedule changes approved by the Commission as part of additional contingencies on construction contracts.
- Program management costs are a subset of Support Projects costs. Program management expenditures to date are \$73.8M, and the Current Approved Budget for Program Management is \$116.7M.
- For description of PMR funds refer to Table 3.3 in Section 3. The Current Approved Budget for PMR will be adjusted to reflect savings after the Board of Supervisors' approval.
- The forecasted cost reflects projected savings on the Local Improvements Projects.

Table 3.2 provides the status of construction contingencies. For each sub-program, it shows the 2011 Approved Contingency; the Current Approved Contingency; the Q4/FY11-12 Forecasted Change Orders; the Q4/FY11-12

Forecasted Trends; and the Q4/FY11-12 Forecasted Remaining Contingency. As of June 30, 2012, the Total Forecasted Remaining Contingency is \$2.9 million

Table 3.2 Status of Construction Contingency

Sub Program	2011 Approved Contingency (\$ Million) (A)	Current Approved Contingency (\$ Million) (B)	Q4/FY11-12 Forecasted Change Orders (\$ Million) (C)	Q4/FY11-12 Forecasted Trends (\$ Million) (D)	Q4/FY11-12 Forecasted Remaining Contingency (\$ Million) (E = B-C-D)
Reservoirs	\$9.62	-	-	-	-
Pump Stations / Tanks	\$6.96	\$6.96	\$3.25	\$0.81	\$2.90
Pipelines / Valves	\$0.55	-	-	-	-
Miscellaneous	\$0.01	-	-	-	-
Local Total	\$17.14	\$6.96	\$3.25	\$0.81	\$2.90

Notes:

- A. Contingency included in June 2011 Revised WSIP.
- B. Contingency included in June 2011 Revised WSIP and any contingency approved by the Commission thereafter.
- C. Forecasted Change Orders include Approved, Pending, and Potential Change Orders.
 - Approved Change Orders are changes that have received all required approvals, including that of the City Controller.
 - Pending Change Orders are changes that have been negotiated and approved by the SFPUC but have to be approved by the City Controller.
 - Potential Change Orders are changes that have been requested and entered into CMIS but are still being negotiated.
- D. Trends are any expected impact that the CM team believes has a high probability of becoming a change but are yet to be entered into CMIS as a Potential Change.

Table 3.3 Status of Program Management Project Cost Breakdown

Category	Expenditures To Date (\$ Million) (A)	2011 Approved Budget (\$ Million) (B)	Current ⁽⁵⁾ Approved Budget (\$ Million) (C)	Q4/FY11-12 Forecasted Cost (\$ Million) (D)	Cost Variance (\$ Million) (E = C-D)
Management Support	\$27.77	\$36.96	\$36.96	\$38.96	(\$2.00)
Project Labor Agreement	\$2.75	\$4.95	\$4.95	\$4.95	-
Planning and Project Development	\$15.03	\$22.84	\$22.84	\$22.84	-
Program Controls	\$13.15	\$20.56	\$20.56	\$20.56	-
Program Construction Management	\$15.11	\$31.43	\$31.43	\$31.43	-
Program Management Total	\$73.82	\$116.74	\$116.74	\$118.74	(\$2.00)

The Program Management project includes programmatic activities that spans multiple regions and benefit several WSIP projects (Table 3.3). The project provides funding for the following functions and resources: SFPUC Staff assigned to the management of the overall program; consultants supporting SFPUC staff at the program level (program, project and pre-construction management consultant, program construction management consultant, program control consultant); labor relations including management of project labor agreement; communication and public outreach; programmatic legal support; real estate acquisitions; program controls including the tracking and reporting of all WSIP efforts; and program-level construction management activities associated with quality assurance, risk management, the Supplier Quality Surveillance (SQS) Program, operations assistance, safety and training.

The activities under the Program Management project are organized into five categories that are tracked and monitored on a monthly basis. These categories are Management Support, Project Labor Agreement, Planning and Project Development, Program Control and Program Construction Management. The spending pattern for the project is very similar from month to month as the project to a great extent is used to fund a number of program-level positions occupied by both SFPUC staff and consultants. The forecasted total Program Management cost is \$118.74 million, which is \$2.0 million more than the Current Approved Budget. The cost variance is due to additional Right of Way work. In many instances, SFPUC was only able to acquire temporary rights along our Right of Way (ROW) to ensure the timely start of construction activities. The intent is to acquire 80 permanent rights related to the WSIP (work to be completed under new WSIP project named "WSIP ROW"). The ROW segments to be included are located along the Bay Division Pipeline (BDPL) Numbers 1 and 2 and some along the SJPLs. The required funding will be used for staff time and consultant

support, attorney’s fees, and easement fees needed to secure permanent easement rights.

4. PROGRAM SCHEDULE SUMMARY

Figure 4.1 and Table 4.1 compare the 2005 Baseline, 2011 Approved and Q4/FY11-12 Forecasted Schedules for the WSIP Local Program. Refer to the “Cost and Schedule Status” notes in Section 5 for the criteria associated with the three color-coded Forecast Status levels in Figure 4.1 – Meet Requirements, Need Attention, and Exceed Limits.

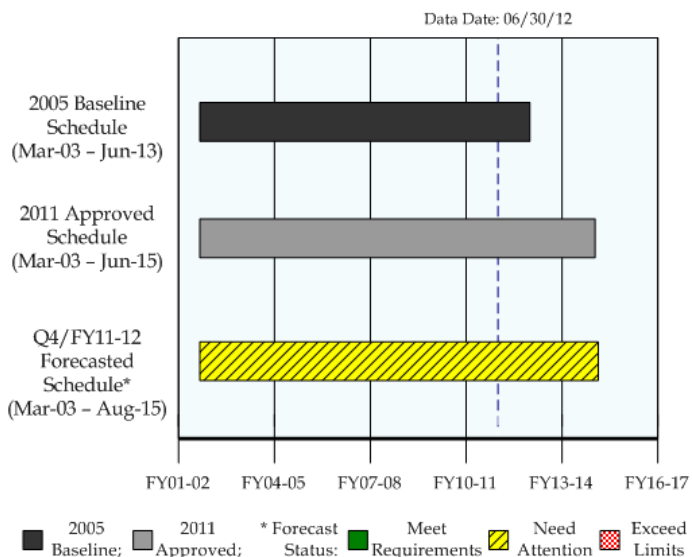


Figure 4.1 Program Schedule Summary

The Current Approved Schedule completion for the overall WSIP (including Regional and Local Programs) and for the Regional Program is July 2016 and the currently Forecasted Schedule completion is the same. The Approved Schedule completion for the WSIP Local Program is June 2015 and currently Forecasted Schedule completion is August 2015 (2 months behind schedule). Refer to Appendix C for a graphical presentation of the WSIP Approved Project-Level Schedule.

Table 4.1 2011 Approved vs. Q4/FY11-12 Forecasted Schedule Dates

Category	2005 Baseline Start	2011 Approved Start	Current* Approved Start	Actual Start	2005 Baseline Finish	2011 Approved Finish	Current* Approved Finish	Q4/FY11-12 Forecasted Finish	Schedule Variance (Months)
Local Program	03/01/03	03/31/03	03/31/03	03/01/03✓	06/28/13	06/05/15	06/05/15	08/14/15	2.3 (Late)
Regional Program	03/01/03	03/31/03	03/31/03	03/01/03✓	06/30/14	07/29/16	07/29/16	07/29/16	-
Overall WSIP	03/01/03	03/01/03	03/01/03	03/01/03✓	06/30/14	07/29/16	07/29/16	07/29/16	-

* The budget and schedule approved as part of the June 2011 Revised WSIP, plus any additional budget and schedule changes approved by the Commission as part of additional contingencies on construction contracts.

This page is intentionally left blank.

5. PROJECT PERFORMANCE SUMMARY*

All costs are shown in \$1,000s as of 06/30/12

Project Name	Active Phase (**)	2005 Baseline Budget (a)	2011 Approved Budget (b)	Current Approved Budget (c)	Q4/FY11-12 Forecasted Cost (d)	Expenditures To Date (e)	Cost Variance (f= c - d)	Cost Status (+)	2005 Baseline Completion (g)	2011 Approved Completion (h)	Current Approved Completion (i)	Q4/FY11-12 Forecasted Completion (j)	Schedule Variance (k = i - j)	Schedule Status (+)	Project Data Sheet
Reservoirs															
CUW33701 - Sutro Reservoir Rehab & Seismic Upgrade	BA	\$ 31,372	\$ 65,000	\$ 65,000	\$ 45,025	\$ 4,583	\$ 19,975	★	07/15/11	06/05/15	06/05/15	08/14/15	2.3 mo. Late	⚠	See Section 6
Pump Stations / Tanks															
CUW30901 - Lake Merced Pump Station Essential Upgrades	CN	\$ 69,093	\$ 47,292	\$ 47,292	\$ 47,856	\$ 42,722	(\$564)	⚠	07/15/11	09/28/12	09/28/12	03/22/13	5.8 mo. Late	⚠	See Section 6
CUW32001 - Forest Hill Pump Station Upgrades	CN	\$ 4,446	\$ 7,583	\$ 7,583	\$ 7,546	\$ 3,677	\$ 37	★	12/02/11	09/20/13	09/20/13	09/12/13	<1 mo. Early	★	See Appendix D

* Exclude projects with completed construction and projects that are no longer active (i.e., deleted projects, closed projects, and projects combined with other projects)

**** Phase Status Legend**

PL	Planning	DS	Design	BA	Bid & Award
CN	Construction	CL	Close-Out		

For projects active in multiple phase, the table shows the phase in which a majority of the work is taking place.

+ Cost and Schedule Status







- ★ Meet Requirements: Forecasted Cost/Schedule is within Current Approved Budget/Schedule.
- ⚠ Need Attention: Forecasted Cost is over Current Approved Budget by greater than 1% and less than 10%. Or Forecasted Schedule is over Current Approved Schedule by greater than 2 months and less than 6 months and less than 10%.
- Exceed Limits: Forecasted Cost is over Current Approved Budget by 10% or more. Or Forecasted Schedule is over Current Approved Schedule by greater than 6 months or 10% or more.

6. PROJECTS NOT WITHIN BUDGET AND/OR SCHEDULE

CUW33701 - Sutro Reservoir Rehab & Seismic Upgrade

Project Description: This project is the upgrade of the existing Sutro Reservoir to meet current seismic standards and conform to all State Health requirements and includes the correction of circulation problems and new inlet/outlet structure.

Region: Reservoirs	Project Status: Bid and Award	Environmental Status: Completed (CatEx)
---------------------------	--------------------------------------	------------------------------------------------

Project Cost:		Project Schedule:	
Approved 	\$65.00 M	Approved Nov-06 	Jun-15
Forecast* 	\$45.03 M	Forecast* Nov-06 	Aug-15
Actual 	\$4.58 M	Project Percent Complete: 9.1%	
			

Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	12/19/11✓	01/07/12✓	09/04/12	01/09/15

Progress and Status:

SFPUC rejected all the bids received in the last quarter as the bids not conform to the project specifications for various reasons. The project was re-advertised under WD-2627R Sutro Reservoir Rehabilitation and Seismic Upgrade on 4/25/12 and 5 bids were received and opened on 5/17/12. The two lowest bids were deemed to be non-responsive by HRC because they did not conform to the "Good Faith Outreach" requirements as specified in the contract documents. As a result, SJ Amoroso Construction Co., Inc. was determined to be the lowest responsive and responsible bidder. On 6/25/12, SFPUC approved awarding the contract for the amount of \$27,453,000 to SJ Amoroso. NTP is expected to be issued in the next quarter.



Interior of Sutro Reservoir







Issues and Challenges:

None at this time.

CUW30901 - Lake Merced Pump Station Essential Upgrades

Project Description: This project will rebuild the Lake Merced pump station. Specific improvements include a new reinforced concrete structure, pumps, stand-by generator, security fencing, SCADA, monitoring and disinfection systems, and landscaping.

Region: Pump Stations / Tanks	Project Status: Construction	Environmental Status: Completed (CatEx)
--------------------------------------	-------------------------------------	------------------------------------------------

Project Cost:		Project Schedule:	
Approved	 \$47.29 M	Approved Jan-06	 Sep-12
Forecast*	 \$47.86 M	Forecast* Jan-06	 Mar-13
Actual	 \$42.72 M	Project Percent Complete: 90.2%	
			

Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	12/28/07✓	10/20/08✓	06/01/09✓	09/24/12

Progress and Status:

Commission approved the modification for additional cost and schedule contingency on April 24, 2012. This allows for the approval of the change order for the additional tenant improvement work to the existing pump station building. Contractor completed startup testing and commissioning of the Sutro pumping system. Continue installation of Lake Draw pumping system, roadway grading, flow-thru planter system, and seismic retrofit work of the existing pump station building. CDD plans to replace a segment of the existing Sutro pipeline downstream of the station which leaked and showed signs of corrosion. Contractor started security fence replacement and will begin paving and landscape planting next quarter.



Interior seismic and tenant improvement work at the Lake Merced existing pump station building

Issues and Challenges:

Unforeseen hydrocarbon contamination was discovered in the soil samples at the existing Underground Storage Tanks (UST) to be demolished. Coordinating with California Department of Public Health (CDPH) to develop plan for additional work to test and abate the hazmat soil. This additional work may delay construction progress. Prior unforeseen obstruction in the soil and asbestos in the pipe coating and lead in the building paints have also impacted construction progress. Current cost and schedule variance reflects contingency estimates for tenant improvements of the existing pump station building and delays due to unforeseen site conditions.

Current cost variance of \$564K and schedule variance of approximately 6 months reflects impacts from the tenant improvement work at the existing pump station building and delays from unforeseen site conditions.

7. On-Going Construction

Construction Contract	Schedule			Budget		Variance (Original - Forecast)		Planned % Complete	Actual % Complete
	NTP Date	Original Construction Final Completion	Q4/FY11-12 Forecasted Construction Final Completion	Original Contract Cost	Q4/FY11-12 Forecasted Cost*	Schedule (Cal. Days)	Cost		
Pump Stations / Tanks									
CUW30901 - Lake Merced Pump Station Essential Upgrades Project	06/01/09	10/23/11	09/24/12	\$ 31,584,000	\$ 34,864,775	(337)	(\$3,280,775)	100.0%	89.1%
CUW32001 - Forest Hill Pump Station Upgrade	09/12/11	03/14/13	03/14/13	\$ 3,651,050	\$ 3,651,050	-	-	55.6%	44.4%

Program Total for On-Going Construction	Original Contract Cost	Q4/FY11-12 Forecasted Cost*	Variance	
			Cost	Percent
	\$ 35,235,050	\$ 38,515,825	(\$3,280,775)	(9.3%)

Note: * The Forecasted Cost includes all approved, pending, and potential change orders.

8. PROJECTS IN CLOSE-OUT

Project Title	2005 Baseline Construction Phase Completion	2011 Approved Construction Phase Completion	Current Approved Construction Phase Completion	Actual Construction Phase Completion	2005 Baseline Construction Phase Budget	2011 Approved Construction Phase Budget	Current Approved Construction Phase Budget	Construction Phase Expenditures To Date
Reservoirs								
CUW30701 - Summit Reservoir Rehabilitation	06/02/06	06/26/06	06/26/06	06/26/06	\$ 9,649,877	\$ 7,760,609	\$ 7,760,609	\$ 7,572,145
CUW31901 - Hunters Point Reservoir Rehab & Seismic Upgrade	11/04/11	02/16/12	02/16/12	01/24/12	\$ 5,854,200	\$ 1,870,000	\$ 1,870,000	\$ 1,762,179
Pump Stations/ Tanks								
CUW32301 - Alemany Pump Station Upgrades (McLaren Park)	01/09/09	02/25/11	02/25/11	02/25/11	\$ 8,150,000	\$ 24,181,984	\$ 24,181,984	\$ 24,169,085
CUW33801 - La Grande Pump Station Upgrades	05/07/10	05/23/12	05/23/12	05/23/12	\$ 3,547,000	\$ 2,883,300	\$ 2,883,300	\$ 2,619,193
CUW34001 - Vista Francisco Pump Station Upgrades	11/06/09	12/17/10	12/17/10	12/17/10	\$ 3,936,000	\$ 3,185,607	\$ 3,185,607	\$ 3,192,908
Pipelines / Valves								
CUW31201 - Lincoln Way Transmission Line	08/04/06	11/10/06	11/10/06	11/10/06	\$ 11,369,200	\$ 9,345,426	\$ 9,345,426	\$ 9,345,426
TOTAL					\$ 42,506,277	\$ 49,226,927	\$ 49,226,927	\$ 48,660,937

9. COMPLETED PROJECTS

Project Title	2005 Baseline Project Completion	2011 Approved Project Completion	Actual Project Completion	2005 Baseline Project Budget	2011 Approved Project Budget	Project Expenditures To Date
Reservoirs						
CUW33401 - Stanford Heights Reservoir Rehabilitation	03/05/10	04/01/11	04/01/11	\$ 19,172,308	\$ 23,635,000	\$ 23,632,660
CUW33501 - Potrero Heights Reservoir Rehabilitation	07/13/07	08/11/08	08/11/08	\$ 7,610,033	\$ 6,836,736	\$ 6,836,736
Pump Stations / Tanks						
CUW30601 - Crocker Amazon Pump Station Upgrades	10/31/06	03/27/08	03/27/08	\$ 4,823,675	\$ 4,126,498	\$ 4,126,498
CUW31401 - La Grande Tank Seismic Upgrade	06/07/07	12/18/08	12/18/08	\$ 7,919,543	\$ 6,987,728	\$ 6,987,728
CUW31801 - Forest Hill Tank Rehab & Seismic Upgrade	01/05/07	08/31/07	08/31/07	\$ 3,204,561	\$ 2,936,199	\$ 2,936,199
CUW32101 - Forest Knolls Pump Station Upgrades	07/03/08	12/30/11	01/18/12	\$ 5,779,776	\$ 6,245,000	\$ 6,196,094
CUW32201 - Lincoln Park Pump Station Upgrades	06/01/07	08/11/08	08/11/08	\$ 4,762,027	\$ 4,345,215	\$ 4,345,215
CUW32401 - Mount Davidson Pump Station Upgrades	08/06/09	03/30/11	03/30/11	\$ 5,223,489	\$ 4,578,500	\$ 4,327,966
CUW32501 - Palo Alto Pump Station Upgrades	04/10/09	11/16/10	11/16/10	\$ 5,225,506	\$ 6,254,000	\$ 6,125,526
CUW32601 - Sky View - Aqua Vista Pump Station Upgrade	07/11/08	08/11/09	08/11/09	\$ 5,717,647	\$ 4,751,094	\$ 4,751,094
CUW32701 - Summit Pump Station Upgrades	03/20/08	08/11/08	08/11/08	\$ 6,396,784	\$ 6,546,113	\$ 6,546,113
CUW32801 - McLaren #1 Tank Rehab & Seismic Upgrade	10/10/08	08/11/08	08/11/08	\$ 5,354,512	\$ 4,659,910	\$ 4,659,741
CUW32901 - Potrero Heights Tank Seismic Upgrade	07/13/07	08/11/08	08/11/08	\$ 1,281,714	\$ 1,084,863	\$ 1,084,863
CUW33001 - Forest Knolls Tank Seismic Upgrade	07/03/08	12/30/11	01/18/12	\$ 3,536,899	\$ 3,575,000	\$ 3,546,789
CUW33101 - Lincoln Park Tank Seismic Upgrade	06/01/07	08/11/08	08/11/08	\$ 3,085,460	\$ 2,690,656	\$ 2,690,656
CUW33201 - McLaren #2 Tank Rehab & Seismic Upgrade	10/10/08	08/11/08	08/11/08	\$ 5,329,017	\$ 4,458,201	\$ 4,458,201
CUW33301 - Mount Davidson Tank Seismic Upgrade	08/06/09	03/30/11	03/30/11	\$ 3,927,838	\$ 2,829,000	\$ 2,568,414
CUW33901 - Potrero Heights Pump Station Upgrades	07/13/07	08/11/08	08/11/08	\$ 733,242	\$ 605,670	\$ 605,670
Pipelines / Valves						
CUW30401 - North University Mound System Upgrade	05/07/10	06/30/11	06/30/11	\$ 23,114,504	\$ 11,450,000	\$ 10,052,227
CUW30801 - Key Motorized and Other Critical Valves	11/06/07	08/11/08	08/11/08	\$ 11,447,747	\$ 10,984,746	\$ 10,984,746
CUW31101 - Sunset Circulation Improvements	07/06/06	07/06/06	07/06/06	\$ 8,224,379	\$ 7,073,054	\$ 7,073,164
CUW31301 - Noe Valley Transmission Main - Phase 2	02/11/11	06/03/11	06/03/11	\$ 11,956,364	\$ 5,657,000	\$ 5,641,390
CUW31501 - East / West Transmission Main	04/10/09	03/21/11	03/21/11	\$ 22,955,659	\$ 27,755,000	\$ 27,753,751

Project Title	2005 Baseline Project Completion	2011 Approved Project Completion	Actual Project Completion	2005 Baseline Project Budget	2011 Approved Project Budget	Project Expenditures To Date
Pipelines / Valves						
CUW31601 - Fulton @ 6th	08/08/08	08/11/08	08/11/08	\$ 4,842,437	\$ 4,713,931	\$ 4,713,931
Miscellaneous						
CUW30301 - Vehicle Service Facility Equipment Safety Upgrade	07/02/09	08/11/09	08/11/09	\$ 5,245,082	\$ 4,043,540	\$ 4,043,540
CUW30501 - Fire Protection @ CDD	06/30/06	01/30/07	01/30/07	\$ 1,988,892	\$ 1,675,476	\$ 1,675,476
TOTAL				\$ 188,859,095	\$ 170,498,130	\$ 168,364,388

This page is intentionally left blank

APPENDICES

- A PROJECT DESCRIPTIONS**
- B WSIP BUDGET AND EXPENDITURES HISTOGRAM**
- C WSIP 2009 APPROVED PROJECT-LEVEL SCHEDULE**
- D PROJECTS WITHIN BUDGET AND SCHEDULE**
- E LIST OF ACRONYMS**

APPENDIX A. PROJECT DESCRIPTIONS

Reservoirs

CUW30701 - Summit Reservoir Rehabilitation

This project consists of the upgrade of the existing Summit Reservoir to meet current seismic standards and conform to all State Public Health requirements. The project includes a new inlet/outlet structure to correct circulation problems.

CUW31001 - New Northwest Reservoir (Deleted)

This project is the construction of a new 5MG reservoir in the northeast zone of San Francisco. This reservoir will provide both fire protection and pressurized supply to areas currently served from the Sunset and Lombard Zones.

CUW31901 - Hunters Point Reservoir Rehab & Seismic Upgrade

This project is the upgrade of the existing Hunters Point Reservoir to meet current seismic standards and conform to all State Health requirements and includes correction of circulation problems and new inlet/outlet structure.

CUW33401 - Stanford Heights Reservoir Rehabilitation (Completed)

This project consists of the upgrade of the existing Stanford Heights Reservoir to meet current seismic standards and conform to all State Public Health requirements. The project includes a new inlet/outlet structure to correct circulation problems.

CUW33501 - Potrero Heights Reservoir Rehabilitation (Completed)

This project is the upgrade of the existing Potrero Heights Reservoir to meet current seismic standards and conform to all State Health requirements and includes correction of circulation problems and new inlet/outlet structure.

CUW33701 - Sutro Reservoir Rehab & Seismic Upgrade

This project is the upgrade of the existing Sutro Reservoir to meet current seismic standards and conform to all State Health requirements and includes the correction of circulation problems and new inlet/outlet structure.

Pump Stations / Tanks

CUW30601 - Crocker Amazon Pump Station Upgrades (Completed)

This project will rebuild the Crocker-Amazon pump station, including a reinforced concrete structure, three pumps, stand-by generator, hydropneumatic tanks, security fencing, monitoring and disinfection systems, and landscaping.

CUW30901 - Lake Merced Pump Station Essential Upgrades

This project will rebuild the Lake Merced pump station. Specific improvements include a new reinforced concrete structure, pumps, stand-by generator, security fencing, SCADA, monitoring and disinfection systems, and landscaping.

CUW31401 - La Grande Tank Seismic Upgrade (Completed)

The project will include the replacement of the La Grande tank, including a concrete tank foundation, new 350,000 gal steel tank, inlet/outlet piping, valves, security fencing, water quality monitoring systems, demolition of existing facility.

CUW31801 - Forest Hill Tank Rehab & Seismic Upgrade (Completed)

This project is the seismic upgrade of the Forest Hill concrete tank, including seismic work, new foundation, inlet/outlet, valves; retaining wall; security fencing and monitoring system, and site improvements.

CUW32001 - Forest Hill Pump Station Upgrades

This project will rebuild the Forest Hill pump station. Specific improvements include a reinforced concrete structure, pumps, stand-by

generator, security fencing, SCADA, monitoring and disinfection systems, and landscaping.

CUW32101 - Forest Knolls Pump Station Upgrades

This project will rebuild the Forest Knolls pump station, including a reinforced concrete structure, pumps, stand-by generator, security fencing, SCADA, water quality monitoring and sampling systems, and landscaping.

CUW32201 - Lincoln Park Pump Station Upgrades (Completed)

This project will rebuild the Lincoln Park pump station. Specific improvements include a new reinforced concrete structure, pumps, stand-by generator, security fencing, tanks, SCADA, monitoring and disinfection systems, and landscaping.

CUW32301 - Alemany Pump Station Upgrades (McLaren Park)

This project will rebuild the Alemany Pump Station, including a reinforced concrete structure, pumps, stand-by generators, security fencing, SCADA, monitoring and disinfection systems, and landscaping.

CUW32401 - Mount Davidson Pump Station Upgrades (Completed)

This project will rebuild the Mount Davidson pump station. Specific improvements include a new reinforced concrete structure, pumps, stand-by generator, security fencing, SCADA, monitoring and disinfection systems, and landscaping.

CUW32501 - Palo Alto Pump Station Upgrades (Completed)

This project will rebuild the Palo Alto Pump Station, including a seismically reinforced concrete structure, pumps, replacement of hydro pneumatic tanks, stand-by generator, security fencing, SCADA, landscaping, and demolition of existing facility.

CUW32601 - Sky View - Aqua Vista Pump Station Upgrade (Completed)

This project will rebuild the Sky View-Aqua Vista pump station, including a reinforced concrete structure, pumps, stand-by generator, security fencing, SCADA, water quality monitoring and sampling systems, and landscaping.

CUW32701 - Summit Pump Station Upgrades (Completed)

This project will rebuild the Summit Pump Station, including a reinforced concrete structure, retaining walls, pumps, inlet-outlet piping, seismic reinforcing of existing generator building, security fencing, SCADA, landscaping, and demolition of existing facility.

CUW32801 - McLaren #1 Tank Rehab & Seismic Upgrade (Completed)

This project consists of the rehabilitation and seismic upgrade of the McLaren #1 Tank including seismic bracing, interior lining replacement, cathodic protection, new exterior coating, lead paint abatement, new inlet/drain/overflow piping and valves, security fencing, electrical improvements, paving, and landscaping.

CUW32901 - Potrero Heights Tank Seismic Upgrade (Completed)

This project is the demolition of the existing Potrero Heights Tank. The tank became nonessential upon completion of the Sunset Circulation Improvements Project.

CUW33001 - Forest Knolls Tank Seismic Upgrade

This project will include the replacement of the Forest Knolls Tank, including a new 100,000 gallon concrete tank, inlet/outlet piping, valves, security fencing, monitoring systems, demolition, and site improvements.

CUW33101 - Lincoln Park Tank Seismic Upgrade (Completed)

The project consists of the replacement of the Lincoln Park tank. Specific improvements include a new 100,000G concrete tank, inlet/outlet piping, valves, security fencing,

monitoring systems, demolition, and site improvements.

CUW33201 - McLaren #2 Tank Rehab & Seismic Upgrade (Completed)

This project consists of the rehabilitation and seismic upgrade of the McLaren #2 tank including seismic bracing, interior lining replacement, cathodic protection, new exterior coating, lead paint abatement, new inlet/drain/overflow piping and valves, security fencing, electrical improvements, paving, and landscaping.

CUW33301 - Mount Davidson Tank Seismic Upgrade (Completed)

The project consists of the seismic retrofit of the existing 75,000G Mount Davidson tank. Specific improvements include a drilled pier foundation, inlet/outlet piping, valves, security fencing, monitoring systems, demolition, and site improvements.

CUW33801 - La Grande Pump Station Upgrades

This project will rebuild the La Grande pump station, including a reinforced concrete structure, pumps, stand-by generator, security fencing, SCADA, monitoring and disinfection systems, and landscaping.

CUW33901 - Potrero Heights Pump Station Upgrades (Completed)

This project is the demolition of the existing Potrero Heights Pump Station. The pump station became nonessential upon completion of the Sunset Circulation Improvements Project.

CUW34001 - Vista Francisco Pump Station Upgrades

This project will rebuild the Vista Francisco pump station, including a reinforced concrete structure, pumps, stand-by generator, security fencing, SCADA, monitoring and disinfection systems, and landscaping.

Pipelines / Valves

CUW30401 - North University Mound System Upgrade (Completed)

This project will improve the supply reliability of the University Mound (UM) system, linking the two independent University Mound and Sunset Supply systems. In order to diminish the impact on the neighborhoods, sewer, domestic water distribution main, and pavement replacement work has been added to the scope.

CUW30801 - Key Motorized and Other Critical Valves (Completed)

This project consists of installing motorized valves at several critical locations. These valves will assist during emergency shutdowns after events such as main breaks, earthquakes, or other situations requiring immediate system isolation.

CUW31101 - Sunset Circulation Improvements (Completed)

This project improved the operation of the Sunset Zone by allowing McLaren tanks to feed the Potrero Heights System. This improved circulation and created a more reliable water supply for the Potrero System.

CUW31201 - Lincoln Way Transmission Line

This project is a new transmission main to serve as a backup to the deteriorated Sunset main from Sunset Reservoir to 5th Avenue and Lincoln Way. Under this project, approximately 13,000 LF of 48-inch steel pipe will be constructed.

CUW31301 - Noe Valley Transmission Main, Phase 2 (Completed)

This project is a new transmission main that will extend the Noe Valley main. The existing main, which ends at Sanchez and 20th Streets, needs to be extended to supply additional pressure to areas where low pressure is a problem.

CUW31501 - East / West Transmission Main (Completed)

This project is a new main from Alemany PS to the western part of the City. This transmission main will enable the SFPUC to move water from the east side of the City into the Sunset system in

the event of a peninsula pipeline failure or emergency.

CUW31601 - Fulton @ Sixth Ave - 30" Main Replacement (Completed)

This project consists of construction of a 30" main to replace the deteriorated Richmond supply main in the Golden Gate Park from Lincoln Way at 6th Avenue to Fulton at 6th. The main will extend the Sunset zone to increase the pressure and supply at the northern end of the zone.

Miscellaneous

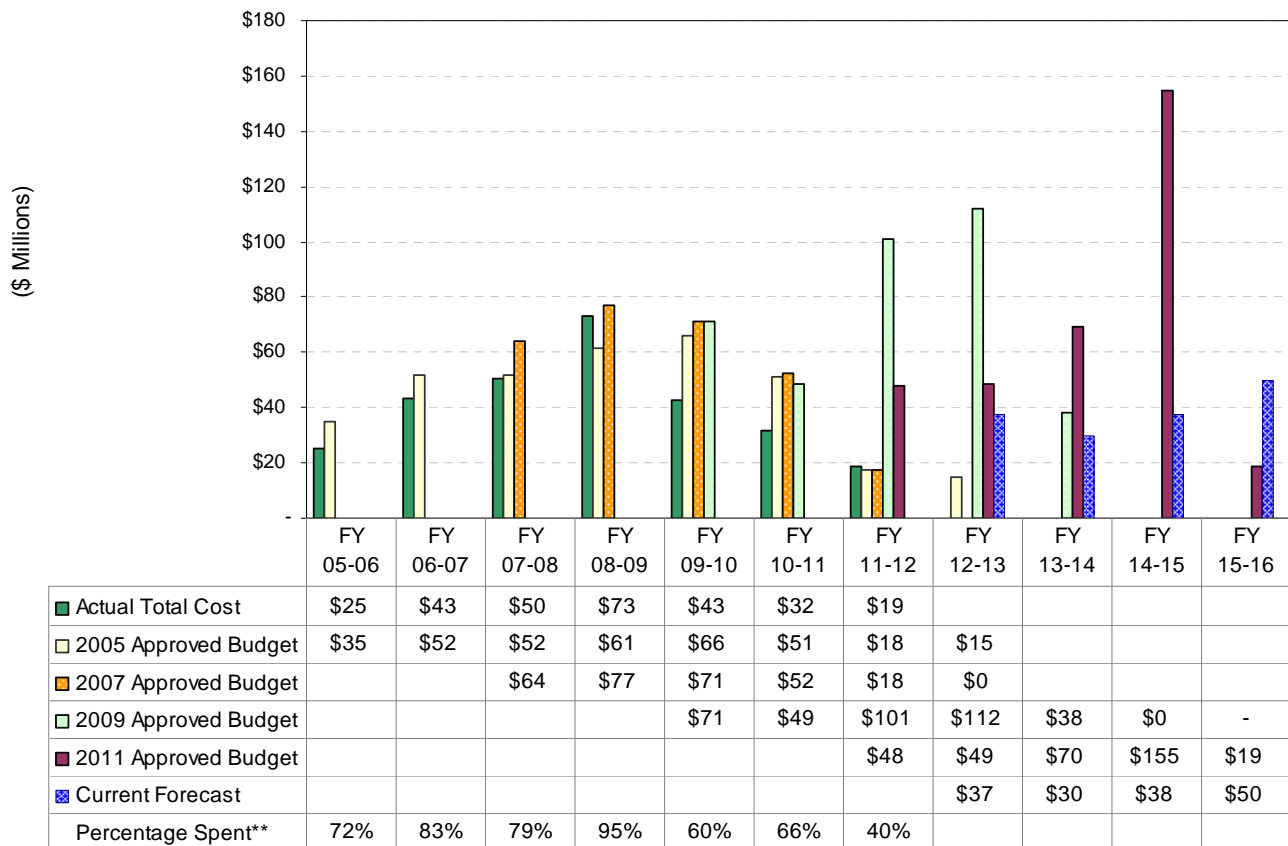
CUW30301 - Vehicle Service Facility Equipment Safety Upgrade (Completed)

This project will upgrade the vehicle service center, machine shop, and various other City Distribution Division (CDD) shops to correct seismic deficiencies and comply with worker safety standards and health department regulations.

CUW30501 - Fire Protection @ CDD (Completed)

This project covers the final phase of construction to complete the fire detection and monitoring systems needed at the City Distribution Division facilities.

APPENDIX B. BUDGET AND EXPENDITURE HISTOGRAM*



All costs are shown in \$ Millions.

* The histogram does not reflect budget and expenditures prior to FY 2005-2006. The histogram includes budget and expenditures for Local Water Supply Projects.

** Percentage Spent calculated as Actual Expenditures over the most current Approved Budget for each individual Fiscal Year.

Figure B Annual Budgeted Spending Plans vs. Actual Expenditures

Figure B compares the spending plans associated with the various WSIP Approved Budgets to Actual Expenditures. It shows total annual expenditures from FY05-06 through FY11-12 and cost projections (Current Forecast) from FY12-13 through program completion in August 2016. Actual annual expenditures have ranged from 40% to 95% of planned expenditures.

APPENDIX C. WSIP Approved Project-Level Schedule

Project Name	Start	Finish	FY2005				FY2006				FY2007				FY2008				FY2009				FY2010				FY2011				FY2012				FY2013				FY2014				FY2015				FY2016				FY2017	
			FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2				
San Francisco Local Program			02-Jan-01	05-Jun-15																																																
Reservoirs			02-Jan-01	05-Jun-15																																																
CUW30701 Summit Reservoir Rehabilitation	02-Jan-01	30-Dec-11	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW31901 Hunters Point Reservoir Rehab & Seismic Upgrade	01-Feb-08	20-Aug-12	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW33401 Stanford Heights Reservoir Rehabilitation (Completed)	17-Aug-04	01-Apr-11	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW33501 Potrero Heights Reservoir Rehabilitation (Completed)	01-May-03	11-Aug-08	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW33701 Sutro Reservoir Rehab & Seismic Upgrade	06-Nov-06	05-Jun-15	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
Pump Stations / Tanks			02-Jul-01	20-Sep-13																																																
CUW30601 Crocker Amazon Pump Station Upgrades (Completed)	14-Jan-02	27-Mar-08	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW30901 Lake Merced Pump Station Essential Upgrades	23-Jan-06	28-Sep-12	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW31401 La Grande Tank Seismic Upgrade (Completed)	02-Jul-01	18-Dec-08	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW31801 Forest Hill Tank Rehab & Seismic Upgrade (Completed)	03-Mar-03	03-Aug-07	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW32001 Forest Hill Pump Station Upgrades	11-Jul-08	20-Sep-13	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW32101 Forest Knolls Pump Station Upgrades (Completed)	01-Jul-03	30-Dec-11	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW32201 Lincoln Park Pump Station Upgrades (Completed)	04-Feb-02	11-Aug-08	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW32301 Alemany Pump Station Upgrades (McLaren Park)	13-Dec-04	04-Nov-11	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW32401 Mount Davidson Pump Station Upgrades (Completed)	20-Dec-05	30-Mar-11	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW32501 Palo Alto Pump Station Upgrades (Completed)	13-Dec-04	16-Nov-10	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW32601 Sky View - Aqua Vista Pump Station Upgrade (Complete)	14-Jun-04	11-Aug-09	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW32701 Summit Pump Station Upgrades (Completed)	02-Sep-03	11-Aug-08	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW32801 McLaren #1 Tank Rehab & Seismic Upgrade (Completed)	17-Aug-04	11-Aug-08	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW32901 Potrero Heights Tank Seismic Upgrade (Completed)	01-Jul-03	11-Aug-08	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW33001 Forest Knolls Tank Seismic Upgrade (Completed)	01-Jul-03	30-Dec-11	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW33101 Lincoln Park Tank Seismic Upgrade (Completed)	11-Feb-02	11-Aug-08	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW33201 McLaren #2 Tank Rehab & Seismic Upgrade (Completed)	27-Aug-04	11-Aug-08	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW33301 Mount Davidson Tank Seismic Upgrade (Completed)	20-Dec-05	30-Mar-11	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW33801 La Grande Pump Station Upgrades	05-Jun-07	26-Nov-12	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW33901 Potrero Heights Pump Station Upgrades (Completed)	01-Jul-03	11-Aug-08	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW34001 Vista Francisco Pump Station Upgrades	27-Jun-06	12-Aug-11	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
Pipelines / Valves			02-Apr-01	30-Dec-11																																																
CUW30401 North University Mound System Upgrade (Completed)	24-Oct-05	30-Jun-11	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW30801 Key Motorized and Other Critical Valves (Completed)	01-Jul-03	11-Aug-08	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW31101 Sunset Circulation Improvements (Completed)	02-Apr-01	06-Jul-06	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW31201 Lincoln Way Transmission Line	05-Apr-02	30-Dec-11	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW31301 Noe Valley Transmission Main - Phase 2 (Completed)	06-Oct-06	03-Jun-11	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW31501 East / West Transmission Main (Completed)	01-Oct-03	21-Mar-11	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW31601 Fulton @ 6th (Completed)	19-Jul-04	11-Aug-08	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
Miscellaneous			15-Apr-02	11-Aug-09																																																
CUW30301 Vehicle Service Facility Equipment Safety Upgrade (Con)	03-Apr-06	11-Aug-09	[Gantt bar showing phases: Design, Construction, Closeout]																																																	
CUW30501 Fire Protection @ CDD (Completed)	15-Apr-02	30-Jan-07	[Gantt bar showing phases: Design, Construction, Closeout]																																																	









APPENDIX D. PROJECTS WITHIN BUDGET AND SCHEDULE

CUW32001 - Forest Hill Pump Station Upgrades

Project Description: This project will rebuild the Forest Hill pump station. Specific improvements include a reinforced concrete structure, pumps, stand-by generator, security fencing, SCADA, monitoring and disinfection systems, and landscaping.

Region: Pump Stations / Tanks	Project Status: Construction	Environmental Status: Completed (CatEx)
--------------------------------------	-------------------------------------	------------------------------------------------

Project Cost:		Project Schedule:	
Approved	 \$7.58 M	Approved Jul-08	 Sep-13
Forecast*	 \$7.55 M	Forecast* Jul-08	 Sep-13
Actual	 \$3.68 M	Project Percent Complete: 57.2%	
			

Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	11/23/10✓	06/01/11✓	09/12/11✓	03/14/13

Progress and Status:

Contractor completed all foundation work for the pump station building and hydro-pneumatic tanks. Contractor also completed yard retaining walls, pump station structure including walls, roof and roofing membrane, set the pumps, and installed the two hydro-pneumatic tanks. Contractor is continuing to install interior and exterior yard piping and will begin electrical conduit and wiring installation next quarter.

Issues and Challenges:

None at this time



Construction of Forest Hill Pump Station and Hydro-pneumatic Tanks

APPENDIX E. LIST OF ACRONYMS

AAR	Alternative Analysis Report	COH	City of Hayward
AB	Assembly Bill	COZEEP	Construction Zone Enhancement Enforcement Program
ACDD	Alameda Creek Diversion Dam	CRLF	California Red Legged Frog
ACFCD	Alameda County Flood Control District	CRT	Coast Range Tunnel
ACFE	Alameda Creek Fishery Enhancement	CSBPL	Crystal Springs Bypass Pipeline
ACOE	Army Corps of Engineers (also shown as USACE)	CSPL	Crystal Springs Pipeline
ACWD	Alameda County Water District	CSPS	Crystal Springs Pump Station
ADA	Americans with Disabilities Act	CS-SA	Crystal Springs - San Andreas
AGM	Assistant General Manager	CSSC	California Seismic Safety Commission
ASCE	American Society of Civil Engineers	DB	Design, Build
BAAQMD	Bay Area Air Quality Management District	DBO	Design, Build, Operate
BART	Bay Area Rapid Transit	DCR	Design Criteria Report
BAWSCA	Bay Area Water Supply and Conservation Agency	DGM	Deputy General Manager
BCWS	Budgeted Cost Work Scheduled	DPW	Department of Public Works
BDPL	Bay Division Pipeline	DRB	Dispute Review Board
BEM	Bureau of Environmental Management	DSOD	Division of Safety of Dams (State of California)
BMP	Best Management Practices	DTSC	Department of Toxic Substances Control (State of California)
BO	Biological Opinion	EBMUD	East Bay Municipal Utility District
CAB	Contract Administration Bureau	ECCM	Environmental Construction Compliance Manager
CATEX	Categorical Exemption	EIR	Environmental Impact Report
CCSF	City and County of San Francisco	EMB	Engineering Management Bureau
CDD	City Distribution Division	EPM	Environmental Project Manager
CDFG	California Department of Fish and Game	EV	Earned Value
CDPH	California Department of Public Health	EVM	Earned Value Management
CEQA	California Environmental Quality Act	FAQ	Frequently Asked Questions
CER	Conceptual Engineering Report	FONSI	Finding of No Significant Impact
CHP	California Highway Patrol	FRP	Fiber Reinforced Polymer
CIDH	Cast-In-Drilled Holes	FY	Fiscal Year
CIP	Capital Improvement Program	GM	General Manager
CM	Construction Management	HDPE	High Density Polyethylene
CMB	Construction Management Bureau	HH	Hetch Hetchy
CMIS	Construction Management Information System	HMP	Habitat Management Plan
CO	Change Order	HRP	Habitat Reserve Program
COF	City of Fremont	HTWTP	Harry Tracy Water Treatment Plant
		IPTF	Interagency Permitting Task Force
		IS	Initial Study
		ITS	Information Technology Services
		JOC	Job Order Contract
		LBE	Local Business Enterprise

LCSD	Lower Crystal Springs Dam	RWQCB	Regional Water Quality Control Board
LLNL	Lawrence Livermore National Laboratory	SABPL	San Antonio Backup Pipeline
LMPS	Lake Merced Pump Station	SAPL	San Antonio Pipeline
LOS	Levels of Service	SAPS	San Antonio Pump Station
LT2ESWTR	Long Term 2 Enhanced Surface Water Treatment Rule	SCADA	Supervisory Control and Data Acquisition
MEA	Environmental Analysis Division (SF Planning Department)	SFFD	San Francisco Fire Department
MG	Million Gallon	SFPUC	San Francisco Public Utilities Commission
MGD	Million Gallons per Day	SHPO	State Historic Preservation Officer
MIS	Management Information System	SJPL	San Joaquin Pipeline
MMRP	Mitigation Monitoring and Reporting Program	SMP	Surface Mining Permit
MND	Mitigated Negative Declaration	SPI	Schedule Performance Index
MOA	Memorandum of Agreement	SSTF	Seismic Safety Task Force
MOU	Memorandum of Understanding	SVWTP	Sunol Valley Water Treatment Plant
NAR	Needs Assessment Report	SWPPP	Stormwater Pollution Prevention Plan
NCSBT	New Crystal Springs Bypass Tunnel	TBD	To be determined
NEG DEC	Negative Declaration (also shown as ND)	TBM	Tunnel Boring Machine
NEPA	National Environmental Policy Act	TWR	Treated Water Reservoir
NMFS	National Marine Fisheries Service (under NOAA)	USACE	US Army Corps of Engineers
NOA	Naturally Occurring Asbestos	USEPA	United States Environmental Protection Agency
NOAA	National Oceanic and Atmospheric Agency	USFWS	US Fish & Wildlife Services
NOP	Notice of Preparation	UM	University Mount
NTP	Notice to Proceed	UV	Ultra Violet
OSHA	Occupational Safety and Health Administration	VOC	Volatile Organic Compound
PCCP	Pre-stressed Concrete Cylinder Pipe	WEIP	Watershed Environmental Improvement Program
PCE	Project Controls Engineer	WSIP	Water System Improvement Program
PCM	Program Construction Management		
PCSB	Program Control and Support Bureau		
PE	Project Engineer		
PEIR	Program Environmental Impact Report		
PG&E	Pacific Gas and Electric		
ROW	Right-of-Way		
RPD	San Francisco Recreation & Parks Department		

This page is intentionally left blank