



# **QUARTERLY REPORT**

Local Projects
Q1 FY 2012 | 2013
July 2012 — September 2012

Rebuilding Today for a Better Tomorrow

#### **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 nonpotable 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). 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

<sup>\*</sup> Final Program Completion Date

#### 2. PROGRAM STATUS

This first (1st) Quarterly Report for Fiscal Year (FY) 2012-2013 presents the progress made on the WSIP local projects between July 1, 2012 and September 29, 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 September 29, 2012. The number of projects currently active in each phase is shown in parenthesis.

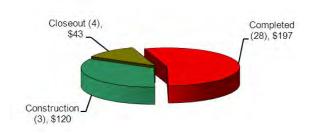


Figure 2.1 Total Approved Budget for Projects Active in Each Phase (\$Million)

Figure 2.2 shows the number of local projects in the following stages of the program as of September 29, 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 September 29, 2012.

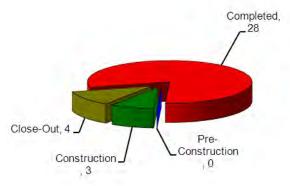


Figure 2.2 Number of Projects in Pre-construction, Construction, and Post-construction

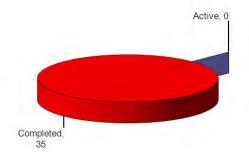


Figure 2.3 Program Environmental and Permitting Status

#### 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 Q1/FY12-13 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 \$4,586 million (\$0.1 million over 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 (\$21.6 million under

the Current Approved Budget). The Current Approved WSIP Budget for the Regional Program is \$3,343 million and the current Forecasted Cost at completion is \$3,494 million (\$150.6 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)	2011 Approved Budget (\$ Million)	Current <sup>(5)</sup> Approved Budget (\$ Million) (D)	Q1/FY12-13 Forecasted Cost (\$ Million)	Cost Variance (\$ Million) (F = D - E)
Local Improvement Projects	\$291	\$383	\$360.6	\$360.6	\$339.0	\$21.6
Construction Cost <sup>(1)</sup>	\$206	\$289	\$264.2	\$264.2	\$243.2	\$21.0
Program Delivery Cost <sup>(2)</sup>	\$84	\$91	\$95.4	\$95.4	\$94.7	\$0.6
Other Costs <sup>(3)</sup>	\$1	\$3	\$1.0	\$1.0	\$1.0	-
Regional Subtotal	\$2,101	\$3,407	\$3,310.5	\$3,343.1	\$3,493.7	(\$150.6)
Regional and Local Total	\$2,392	\$3,791	\$3,671.1	\$3,703.7	\$3,832.7	(\$129.0)
Local Water Supply Projects <sup>(4)</sup>	\$35	-	\$281.3	\$281.3	\$281.3	-
Program Management Reserve (PMR) (7)	-	-	\$161.4	\$128.9	\$0.0	\$128.9
Finance	-	\$552	\$471.7	\$471.7	\$471.7	-
PROGRAM TOTAL (8)	\$2,427	\$4,343	\$4,585.6	\$4,585.6	\$4,585.7	(\$0.1)
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.
- 2. **Delivery Cost** includes program and project management, planning, environmental (CEQA, permitting, construction compliance), design, construction management, and engineering support during construction.
- 3. Other Costs include environmental mitigation, art enrichment, security Improvements and real estate expenses.
- 4. 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.
- 6. Program management costs are a subset of Support Projects costs. Program management expenditures to date are \$74.2M, 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 Q1/FY12-13 Forecasted Change Orders; the Q1/FY12-13

Forecasted Trends; and the Q1/FY12-13 Forecasted Remaining Contingency. As of September 29, 2012, the Total Forecasted Remaining Contingency is \$2.11 million

**Table 3.2 Status of Construction Contingency** 

Sub Program	2011 Approved Contingency (\$ Million) (A)	Current Approved Contingency (\$ Million)	Q1/FY12-13 Forecasted Change Orders (\$ Million)	Q4/FY11-12 Forecasted Trends (\$ Million) (D)	Q1/FY12-13 Forecasted Remaining Contingency (\$ Million) (E = B-C-D)
Reservoirs	\$9.62	-	\$0.28	-	(\$0.28)
Pump Stations / Tanks	\$6.96	\$6.96	\$4.56	-	\$2.40
Pipelines / Valves	\$0.55	-	-	-	_
Miscellaneous	\$0.01	-	1	-	-
Local Total	\$17.14	\$6.96	\$4.85	-	\$2.11

#### 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)	Current <sup>(5)</sup> Approved Budget (\$ Million) (C)	Q1/FY12-13 Forecasted Cost (\$ Million) (D)	Cost Variance (\$ Million) (E = C-D)
Management Support	\$27.22	\$36.96	\$36.96	\$39.23	(\$2.27)
Project Labor Agreement	\$2.91	\$4.95	\$4.95	\$4.95	-
Planning and Project Development	\$15.24	\$22.84	\$22.84	\$22.84	-
Program Controls	\$13.63	\$20.56	\$20.56	\$20.56	-
Program Construction Management	\$15.22	\$31.43	\$31.43	\$31.62	(\$0.19)
Program Management Total	\$74.21	\$116.74	\$116.74	\$119.20	(\$2.46)

The Program Management project includes programmatic activities that spans multiple regions and benefit several WSIP projects (Table 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 preconstruction management consultant, program construction management consultant, program control consultant); labor relations including management of project labor agreement; communication 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 \$119.2 million, which is \$2.5 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 SIPLs. 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 Q1/FY12-13 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.

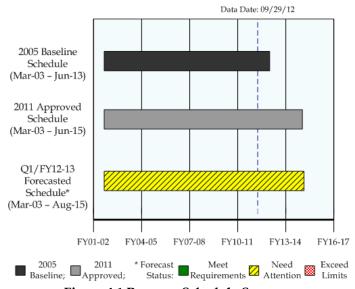


Figure 4.1 Program Schedule Summary

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 August 2018 (25 months late). The Approved Schedule completion for the WSIP Local Program is June 2015 and currently Forecasted Schedule completion is August 2015 (2 months late). Refer to Appendix C for a graphical presentation of the WSIP Approved Project-Level Schedule.

Table 4.1 2011 Approved vs. Q1/FY12-13 Forecasted Schedule Dates

Category	2005 Baseline Start	2011 Approved Start	Current* Approved Start	Actual Start	2005 Baseline Finish	2011 Approved Finish	Current* Approved Finish	Q1/FY12-13 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	08/29/18	25.0 (Late)
Overall WSIP	03/01/03	03/01/03	03/01/03	03/01/03✓	06/30/14	07/29/16	07/29/16	08/29/18	25.0 (Late)

<sup>\*</sup> 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.

WSIP Quarterly Report Q1-FY2012-2013 (07/01/12 - 09/29/12)

### 5. PROJECT PERFORMANCE SUMMARY\*

All costs are shown in \$1,000s as of 09/29/12

Project Name	Active Phase (**)	2005 Baseline Budget (a)	2011 Approved Budget (b)	Current Approved Budget (c)	Q1/FY12-13 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)	Q1/FY12-13 Forecasted Completion (j)	Schedule Variance (k = i - j)	Schedule Status (+)	Project Data Sheet
Reservoirs															
CUW33701 - Sutro Reservoir Rehab & Seismic Upgrade	CN	\$ 31,372	\$ 65,000	\$ 65,000	\$ 44,979	\$ 4,820	\$ 20,021	*	07/15/11	06/05/15	06/05/15	08/14/15	2.3 mo. Late	<u> </u>	See Section 6
Pump Stations / Tar	nks														
CUW30901 - Lake Merced Pump Station Essential Upgrades	CN	\$ 69,093	\$ 47,292	\$ 47,292	\$ 48,106	\$ 44,888	(\$814)	<u>^</u>	07/15/11	09/28/12	09/28/12	05/24/13	7.8 mo. Late		See Section 6
CUW32001 - Forest Hill Pump Station Upgrades	CN	\$ 4,446	\$ 7,583	\$ 7,583	\$ 7,546	\$ 4,915	\$ 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)

<b>ጥ</b> ጥ	Phase Status Le	egend	l			
PL	Planning	DS	Design	BA	Bid & Award	
CNI	Construction	CI	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 Sta	Project Status: Construction			Environmental Status: Completed (CatEx)			
Project Cost:			Project Schedul	le:				
Approved	\$65.00 N	Л	Approved Nov-0	6		Jun-15		
Forecast*	\$44.98 N	Л	Forecast* Nov-0	6 /////////////////////////////////////		Aug-15		
Actual <b>=</b>	\$4.82 N	A	Project Percent Co	omplete: 9.8%				
Approved; Actual C	Cost; * Forecast Status:	N	Meet Requirements 🛭	Need Attention	Exceed Limits	5		
Key Milestones:	Environmental Approval	1	Bid Advertisement	Construction NTP	Construction Final Completio			
Current Forecast	12/19/11√		01/07/12✓	08/20/12√	02/06/	<sup>1</sup> 5		

#### **Progress and Status:**

Construction NTP was issued on 8/20/12 to the Contractor, SJ Amorso. A project ground breaking event was held on 9/18/2012, with the Mayor, General Manager, and the District 7 Supervisor. Contractor has mobilized on site and has started partial roof demolition for the construction access into the West Basin. Work to remove the existing liner in the west basin is ongoing and will be complete by the next quarter.

#### **Issues and Challenges:**

Schedule variance of approximately 2.5 month reflect prior delays during Bid and Award phase for rejecting the first bids and re-advertising the contact.



The project ground breaking event was successfully completed on 9/18/2012, with Mayor and General Manager and District 7 Supervisor.

#### 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 / Ta	nks Project Sta	tus: Construction	Environmental Status: Complete (CatEx)			
Project Cost:		Project Schedu	ıle:			
Approved	\$47.29 1	M Approved Jan-06	5	Sep-12		
Forecast*	<b>/////////</b> \$48.11 M	M Forecast* Jan-06	5	May-13		
Actual	\$44.89 1	M Project Percent C	Complete: 94.3%			
Approved; Actual C	Cost; * Forecast Status:	Meet Requirements	Need Attention	Exceed Limits		
Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion		
Current Forecast	12/28/07✓	10/20/08√	06/01/09√	11/30/12		

#### **Progress and Status:**

Contractor completed installation and testing of Lake Draw pumping system, construction of the flow-thru planter system, and seismic retrofit work at the existing pump station building. Continuing tenant improvement work at the existing pump station building and perimeter security fencing. Progress on roadway paving work has been impacted due to the delays associated in the removal of the existing Underground Storage Tanks (UST). Refer to Issues below for additional details. Excavation and shoring for UST removal is slated to begin early next quarter.

#### **Issues and Challenges:**

Unforeseen hydrocarbon contamination was discovered in the soil samples at the existing Underground Storage Tanks (UST) to be demolished. California Department of Public Health (CDPH) will determine extend of additional work to test and abate the hazmat soils based on what is uncovered during excavation. This additional work is delaying construction progress. Prior unforeseen obstruction in the soil, asbestos in the pipe coating, and lead in the building paints have also contributed to the delays in overall construction progress.

Current cost variance of \$814K and schedule variance of approximately 8 months reflects impacts from the tenant improvement work at the existing pump station building and delays from unforeseen site conditions.



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

### 7. On-Going Construction

		Schedule		Buo	lget	Varia (Original -			
Construction Contract	NTP Date	Original Construction Final Completion	Q1/FY12-13 Forecasted Construction Final Completion	Cost	Q1/FY12-13 Forecasted Cost*	Schedule (Cal. Days)	Cost	Planned % Complete	Actual % Complete
Reservoirs									
CUW33701 - Sutro Reservoir Rehabilitation and Seismic Upgrade	09/18/12	02/06/15	02/06/15	\$ 27,453,000	\$ 27,453,000	ı	-	0.0%	0.0%
Pump Stations / Tanks									
CUW30901 - Lake Merced Pump Station Essential Upgrades Project	06/01/09	10/23/11	11/30/12	\$ 31,584,000	\$ 34,864,775	(404)	(\$3,280,775)	100.0%	94.1%
CUW32001 - Forest Hill Pump Station Upgrade	09/12/11	03/14/13	03/14/13	\$ 3,651,050	\$ 3,706,604	-	(\$55,554)	73.8%	70.7%

Program Total	Original	Q1/FY12-13	Variance	
for On-Going	Contract Cost	Forecasted Cost*	Cost	Percent
Construction	\$ 62,688,050	\$ 66,024,379	(\$3,336,329)	(5.3%)

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

#### **8. PROJECTS IN CLOSE-OUT**

Project Title	2005 Baseline Construction Phase Completion	Phase	Phase	Actual Construction Phase Completion	Construction	2011 Approved Construction Phase Budget	Current Approved Construction Phase Budget	Construction Phase Expenditures To Date
Reservoirs								
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	\$ 24,169,525
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	\$ 2,627,023
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	\$ 3,202,777
TOTAL					\$ 21,487,200	\$ 32,120,891	\$ 32,120,891	\$ 31,761,504

### 9. COMPLETED PROJECTS

	2005	2011		2005	2011	
	Baseline	Approved	Actual	Baseline	Annrowed	Project
Project Title	Project	Duoinat	Project	Project	Project	Expenditures
		Completion	Completion	Budget	Budget	To Date
	Completion	Completion		Duuget	Duuget	
Reservoirs						
CUW30701 - Summit Reservoir	12/08/06	12/30/11	09/28/12	\$ 14,927,859	\$ 13,050,000	\$ 12,306,978
Rehabilitation						
CUW33401 - Stanford Heights	03/05/10	04/01/11	04/01/11	\$ 19,172,308	\$ 23,635,000	\$ 23,632,660
Reservoir Rehabilitation CUW33501 - Potrero Heights	07/13/07	08/11/08	08/11/08	\$ 7,610,033	\$ 6,836,736	\$ 6,836,736
Reservoir Rehabilitation	07/13/07	00/11/00	00/11/00	Ψ 7,010,033	ψ 0,030,730	ψ 0,030,730
Pump Stations/						
Tanks						
CUW30601 - Crocker Amazon	10/31/06	03/27/08	03/27/08	\$ 4,823,675	\$ 4,126,498	\$ 4,126,498
Pump Station Upgrades			, , , , , ,	, ,, ,, ,,		
CUW31401 - La Grande Tank	06/07/07	12/18/08	12/18/08	\$ 7,919,543	\$ 6,987,728	\$ 6,987,728
Seismic Upgrade		22/2	22/2:/-			
CUW31801 - Forest Hill Tank	01/05/07	08/31/07	08/31/07	\$ 3,204,561	\$ 2,936,199	\$ 2,936,199
Rehab & Seismic Upgrade CUW32101 - Forest Knolls	07/03/08	12/30/11	01/18/12	\$ 5,779,776	\$ 6,245,000	\$ 6,196,751
Pump Station Upgrades	07/03/06	12/30/11	01/10/12	ψ 5,777,770	φ 0,243,000	φ 0,190,/31
CUW32201 - Lincoln Park	06/01/07	08/11/08	08/11/08	\$ 4,762,027	\$ 4,345,215	\$ 4,345,215
Pump Station Upgrades		, ,	, ,	, , ,		
CUW32401 - Mount Davidson	08/06/09	03/30/11	03/30/11	\$ 5,223,489	\$ 4,578,500	\$ 4,327,966
Pump Station Upgrades		11/11/10				
CUW32501 - Palo Alto Pump	04/10/09	11/16/10	11/16/10	\$ 5,225,506	\$ 6,254,000	\$ 6,125,904
Station Upgrades CUW32601 - Sky View - Aqua	07/11/08	08/11/09	08/11/09	\$ 5,717,647	\$ 4,751,094	\$ 4,751,094
Vista Pump Station Upgrade	07/11/08	00/11/09	00/11/09	Φ 5,717,047	φ 4,/31,094	ψ 4,751,094
CUW32701 - Summit Pump	03/20/08	08/11/08	08/11/08	\$ 6,396,784	\$ 6,546,113	\$ 6,546,113
Station Upgrades		, ,				
CUW32801 - McLaren #1 Tank	10/10/08	08/11/08	08/11/08	\$ 5,354,512	\$ 4,659,910	\$ 4,659,741
Rehab & Seismic Upgrade	07/10/07	00 /11 /00	00 /11 /00	Ф 1 <b>0</b> 01 <b>7</b> 1 4	Ф.1.004.0 <b>/</b> 2	Ф 1 004 0 <b>2</b>
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	07/03/08	12/30/11	01/18/12	\$ 3,536,899	\$ 3,575,000	\$ 3,546,789
Tank Seismic Upgrade	0.,00,00	12,00,11	01, 10, 12	# 0,000,000	\$ 2,2.2,000	
CUW33101 - Lincoln Park	06/01/07	08/11/08	08/11/08	\$ 3,085,460	\$ 2,690,656	\$ 2,690,656
Tank Seismic Upgrade						
CUW33201 - McLaren #2 Tank	10/10/08	08/11/08	08/11/08	\$ 5,329,017	\$ 4,458,201	\$ 4,458,201
Rehab & Seismic Upgrade	00/06/00	02/20/11	02 /20 /11	# 2 007 020	# 2 020 000	¢ 2 E/O 41.4
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	07/13/07	08/11/08	08/11/08	\$ 733,242	\$ 605,670	\$ 605,670
Pump Station Upgrades	11, 10, 0,		,, 00	+ 100 <b>/212</b>	, 300,010	
Pipelines / Valves						
•	05/07/10	06/20/11	06/20/11	¢ 22 114 E04	¢ 11 450 000	¢ 10 000 010
CUW30401 - North University Mound System Upgrade	05/07/10	06/30/11	06/30/11	\$ 23,114,504	\$ 11,450,000	\$ 10,000,010
CUW30801 - Key Motorized	11/06/07	08/11/08	08/11/08	\$ 11,447,747	\$ 10,984,746	\$ 10,984,746
and Other Critical Valves	, 55, 5,		,, 00	+//, ±,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
CUW31101 - Sunset	07/06/06	07/06/06	07/06/06	\$ 8,224,379	\$ 7,073,054	\$ 7,073,164
Circulation Improvements						
CUW31201 - Lincoln Way	02/09/07	12/30/11	09/24/12	\$ 14,788,970	\$ 13,950,000	\$ 13,781,922
Transmission Line						

#### Q1-FY2012-2013 (07/01/12 -09/29/12) 2005 2011 2005 2011 Actual **Project** Approved Expenditures **Baseline** Approved **Baseline Project Title** Project Completion Completion Project Project **Project** Project To Date **Budget Budget** Pipelines / Valves CUW31301 - Noe Valley 06/03/11 02/11/11 06/03/11 \$ 11,956,364 \$ 5,657,000 \$ 5,641,390 Transmission Main - Phase 2 CUW31501 - East / West 04/10/09 03/21/11 03/21/11 \$ 22,955,659 \$ 27,755,000 \$ 27,754,505 Transmission Main 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 07/02/09 08/11/09 08/11/09 \$ 5,245,082 \$ 4,043,540 \$ 4,043,524 Facility Equipment Safety Upgrade CUW30501 - Fire Protection @ 06/30/06 01/30/07 01/30/07 \$ 1,988,892 \$ 1,675,476 \$ 1,675,476 CDD \$ 218,575,924 \$ 197,498,130 | \$ 194,402,844 **TOTAL**

This page is intentionally left blank

### **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**

#### APPENDIX A. PROJECT DESCRIPTIONS

#### Reservoirs

### **CUW30701 - Summit Reservoir Rehabilitation** (Completed)

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 (Completed)

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, standby 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 (Completed)

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 (Completed)

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

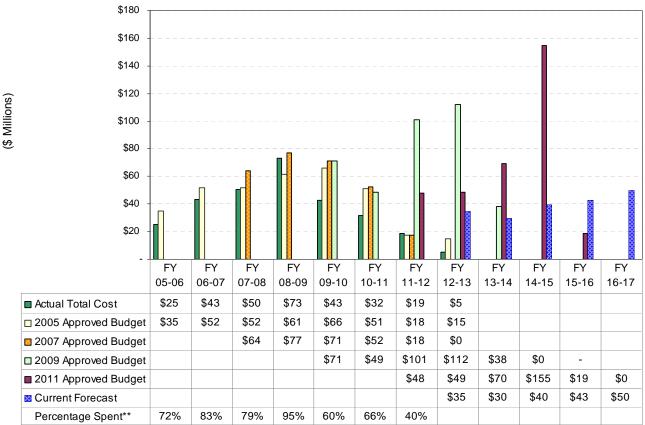
## CUW30301 - Vehicle Service Facility Equipment Safety Upgrade (Completed)

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\*



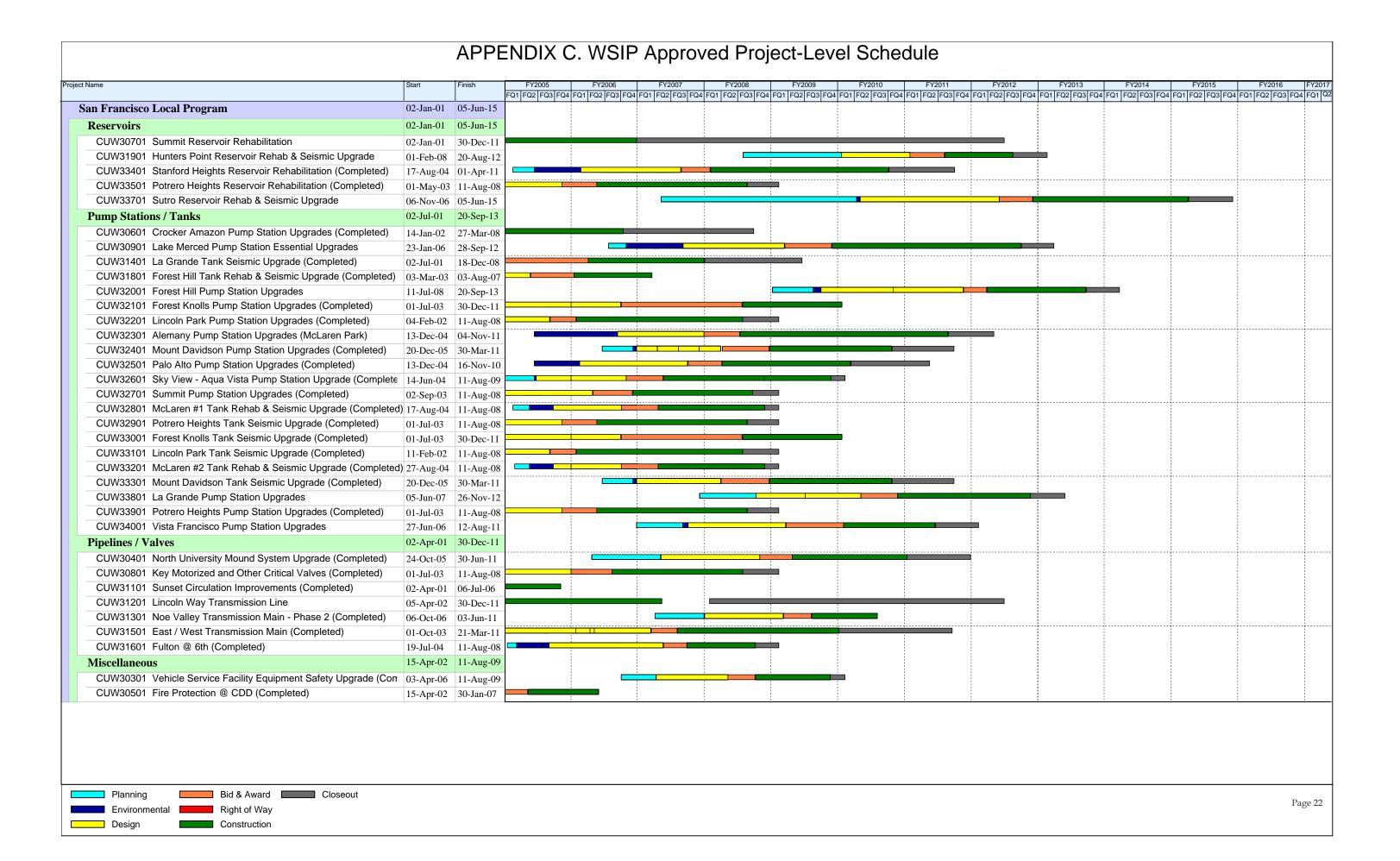
All costs are shown in \$ Millions.

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 Q1/FY12-13 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.

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

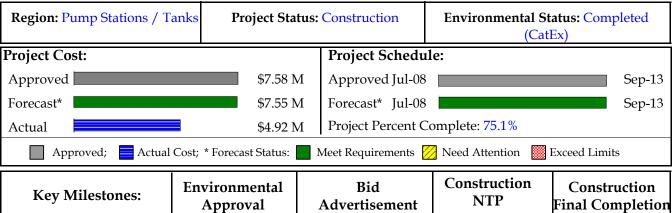
<sup>\*\*</sup> Percentage Spent calculated as Actual Expenditures over the most current Approved Budget for each individual Fiscal Year.



#### 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.



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

#### **Progress and Status:**

Progress of overall construction work continues to be ahead of schedule. Contractor completed fiber reinforcement work on the existing concrete storage tank, interior plumbing and ventilation, and exterior yard piping work. Contractor started installation of electrical conduit and wiring. Pump station component testing and system testing is anticipate to begin 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 AB ACDD ACFCD ACFE ACOE	Alternative Analysis Report Assembly Bill Alameda Creek Diversion Dam Alameda County Flood Control District Alameda Creek Fishery Enhancement Army Corps of Engineers (also shown as USACE) Alameda County Water District	COH COZEEP CRLF CRT CSBPL CSPL CSPS CS-SA CSSC	City of Hayward Construction Zone Enhancement Enforcement Program California Red Legged Frog Coast Range Tunnel Crystal Springs Bypass Pipeline Crystal Springs Pipeline Crystal Springs Pump Station Crystal Springs – San Andreas California Seismic Safety
ADA	Americans with Disabilities Act	Cooc	Commission
AGM	Assistant General Manager	DB	Design, Build
<b>ASCE</b>	American Society of Civil	DBO	Design, Build, Operate
	Engineers	DCR	Design Criteria Report
BAAQMI	DBay Area Air Quality	DGM	Deputy General Manager
~	Management District	DPW	Department of Public Works
<b>BART</b>	Bay Area Rapid Transit	DRB	Dispute Review Board
BAWSCA	Bay Area Water Supply and	DSOD	Division of Safety of Dams (State
	Conservation Agency		of California)
<b>BCWS</b>	Budgeted Cost Work Scheduled	DTSC	Department of Toxic Substances
BDPL	Bay Division Pipeline		Control (State of California)
BEM	Bureau of Environmental	<b>EBMUD</b>	East Bay Municipal Utility District
	Management	<b>ECCM</b>	Environmental Construction
BMP	Best Management Practices		Compliance Manager
BO	Biological Opinion	EIR	Environmental Impact Report
CAB	Contract Administration Bureau	<b>EMB</b>	Engineering Management Bureau
CATEX	Categorical Exemption	<b>EPM</b>	Environmental Project Manager
CCSF	City and County of San Francisco	EV	Earned Value
CDD	City Distribution Division	<b>EVM</b>	Earned Value Management
CDFG	California Department of Fish	FAQ	Frequently Asked Questions
CDDII	and Game	<b>FONSI</b>	Finding of No Significant Impact
CDPH	California Department of Public	FRP	Fiber Reinforced Polymer
CEOA	Health	FY	Fiscal Year
CEQA	California Environmental Quality	GM	General Manager
CED	Act	HDPE	High Density Polyethylene
CER	Conceptual Engineering Report	HH	Hetch Hetchy
CHP	California Highway Patrol	HMP	Habitat Management Plan
CIDH CIP	Capital Improvement Program	HRP	Habitat Reserve Program
CM	Capital Improvement Program	HTWTP	Harry Tracy Water Treatment
CMB	Construction Management Construction Management	IDEE	Plant
CIVID	Bureau	IPTF	Interagency Permitting Task
CMIS	Construction Management	TC.	Force
CIVII	Information System	IS ITC	Initial Study
CO	Change Order	ITS	Information Technology Services
COF	City of Fremont	JOC	Job Order Contract
COI	City of Frenchi	LBE	Local Business Enterprise

LCSD	Lower Crystal Springs Dam	RWQCB	Regional Water Quality Control
LLNL	Lawrence Livermore National	CARRI	Board
I N I D C	Laboratory	SABPL	San Antonio Backup Pipeline
LMPS	Lake Merced Pump Station	SAPL	San Antonio Pipeline
LOS	Levels of Service	SAPS	San Antonio Pump Station
LT2ESW	TR Long Term 2 Enhanced	SCADA	Supervisory Control and Data
3.577.4	Surface Water Treatment Rule	CEED	Acquisition
MEA	Environmental Analysis Division	SFFD	San Francisco Fire Department
	(SF Planning Department)	SFPUC	San Francisco Public Utilities
MG	Million Gallon	CLIDO	Commission
MGD	Million Gallons per Day	SHPO	State Historic Preservation
MIS	Management Information System	CIDI	Officer
MMRP	Mitigation Monitoring and	SJPL	San Joaquin Pipeline
	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
NCSBT	New Crystal Springs Bypass	<b>TDD</b>	Plan
	Tunnel	TBD	To be determined
NEG DE	C Negative Declaration (also shown	TBM	Tunnel Boring Machine
	as ND)	TWR	Treated Water Reservoir
NEPA	National Environmental Policy	USACE	US Army Corps of Engineers
	Act	USEPA	United States Environmental
NMFS	National Marine Fisheries Service	TIOTING	Protection Agency
	(under NOAA)	USFWS	US Fish & Wildlife Services
NOA	Naturally Occurring Asbestos	UM	University Mount
NOAA	National Oceanic and	UV	Ultra Violet
	Atmospheric Agency	VOC	Volatile Organic Compound
NOP	Notice of Preparation	WEIP	Watershed Environmental
NTP	Notice to Proceed	TATOTO	Improvement Program
OSHA	Occupational Safety and Health	WSIP	Water System Improvement
D.C.C.D.	Administration		Program
PCCP	Pre-stressed Concrete Cylinder		
	Pipe		
PCE	Project Controls Engineer		
PCM	Program Construction		
DCCD	Management		
PCSB	Program Control and Support		
	Bureau		
PE	Project Engineer		
PEIR	Program Environmental Impact		
DC 2 =	Report		
PG&E	Pacific Gas and Electric		
ROW	Right-of-Way		
RPD	San Francisco Recreation & Parks		
	Department		

This page is intentionally left blank