#### WATER SUPPLY OVERVIEW

Valley Water manages and operates a complex and integrated water supply infrastructure, including storage, transmission, treatment, and recycled water facilities, to meet the Board's Ends Policy E-2, "There is a reliable, clean water supply for current and future generations."

#### Storage Facilities

- 10 surface reservoirs
- 393 acres of recharge ponds
- 76 miles of in-stream recharge
- Ground water basins

#### Transmission Facilities

- 142 miles of pipelines
- 3 pump stations

#### Treatment Facilities

• 3 treatment plants

# Recycled Water Facilities

- Silicon Valley Advanced Water Purification Center
- South County Recycled Water Distribution System

Planning, design and construction of the above facilities took decades of effort. Beginning in the 1930s, reservoirs and recharge ponds were built to halt depletion of the ground water basin and subsidence, followed by pipelines and treatment plants to bring in state and federal water to meet growing water demands in the County.

In the early 1990s, Valley Water embarked on new and challenging capital improvements to upgrade its three drinking water treatment plants in order to meet new Environmental Protection Agency rules for improved water quality required by 1996 amendments to the Safe Drinking Water Act. Fifteen years of effort and capital funding brought the upgrades at Penitencia and Santa Teresa Water Treatment Plants to completion. Delivery of ozonated water produced at these two treatment plants began in 2006.

The Rinconada Water Treatment Plant (RWTP) was built in the late 1960s and is reaching the end of its useful life. A number of projects to upgrade and

improve operations have been completed. The RWTP Reliability Improvement Project will add raw water ozonation, construct new flocculation and plate settler clarification, and dual media filtration facilities. It will also increase plant capacity from 80 to 100 million gallons per day. Construction of this Project began in the summer of 2015. After completion of Phase 1 and 2 in the summer of 2020, work on Phases 3 through 6 will commence following an evaluation of the best approach.

With a significant portion of the Water Supply infrastructure approaching 50 to 60 years of age, maintaining and upgrading the existing infrastructure to ensure each facility functions as intended for its useful life became the focus of the Water Supply CIP in recent years.

Valley Water owns and operates ten dams. While these dams provide water supply, flood management, recreation, and environmental flow benefits, there are consequences and costs for dam ownership. Knowledge of seismic stability design and construction was very rudimentary during the design and construction of Valley Water dams in the 1930s and 50s. Both liquefaction of dam embankments and foundations and embankment stability must be addressed for seismic stability. Several of Valley Water's reservoirs have had operating restrictions imposed by the Department of Safety of Dams (DSOD) while an engineering analysis of how Valley Water's dams would perform under a major seismic event is completed and appropriate corrective actions are implemented.

On November 26, 2010, the Board was informed that Anderson Dam will require a seismic retrofit and the operating restriction was increased to 45 feet below the crest of the dam. Since this briefing, a consultant has determined that a magnitude 7.2 Maximum Credible Earthquake on nearby Calaveras Fault could cause a deformation (slumping) of the dam crest by 25 feet. The Anderson Dam Seismic Retrofit Project was initiated in January 2011. While work on the project was underway, Valley Water received a directive on February 20, 2020 from the Federal Energy Regulatory

Commission to implement interim risk reduction measures, including the Anderson Dam Tunnel Project to construct a diversion to augment the existing outlet.

Valley Water completed a seismic stability evaluation of Almaden, Calero, and Guadalupe Dams in late 2010. Almaden Dam was found to be seismically stable; however both Calero and Guadalupe Dams will require seismic retrofitting to meet DSOD performance criteria. A project was initiated in fiscal year 2013 to address the Calero and Guadalupe Dams retrofit needs. A separate capital project to address outlet and spillway improvements at Almaden Dam is continuing. Seismic stability evaluations were conducted at Lenihan and Stevens Creek Dams. Both were found to be seismically stable.

In April 2017, the Governor of California ordered detailed evaluations of large spillway structures at all high-hazard dams. Spillway evaluations are required on 9 of Valley Water's 10 dams. The spillway evaluation for 7 dams have been incorporated into existing projects and a separate contract for the spillway evaluation of the Lenihan and Stevens Creek dams has been formed.

Valley Water is partnering with Pacheco Pass Water District and San Benito County Water District for the Pacheco Reservoir Expansion Project. This Project will encompass the acquisition and expansion of this reservoir from 6,000 AF to 140,000 AF and will provide water quality benefits, operational flexibility, emergency storage, flood protection, and ecosystem benefits. On July 24, 2018, the California Water Commission awarded \$484.55 million to support the project, including an early funding award of \$24.2 million.

The key driver for Water Supply projects is the Water Supply Master Plan, which includes three strategies to ensure sustainability: secure water supply; expand water supply through water conservation, stormwater capture and potable reuse projects; and optimize existing infrastructure.

# Major Capital Improvements Identified in the CIP: Storage:

- Almaden Dam Improvements
- Anderson Dam Seismic Retrofit

- Calero Dam Seismic Retrofit
- Guadalupe Dam Seismic Retrofit
- Pacheco Reservoir Expansion
- Dam Seismic Stability Evaluation
- Coyote Pumping Plant ASD Replacement
- Coyote Warehouse
- Small Capital Improvements, San Felipe Reaches 1-3

#### Transmission:

- 10-Year Pipeline Rehabilitation
- FAHCE Implementation
- Vasona Pumping Station Upgrade
- Almaden Valley Pipeline Replacement
- Distribution System Implementation Project
- IRP2 Additional Line Valves (A3)
- Pacheco/Santa Clara Conduit Right of Way Acquisition
- SCADA Implementation Project
- Small Capital Improvements, Raw Water Transmission
- Small Capital Improvements, Treated Water Transmission
- Treated Water Isolation Valves

#### Water Treatment Plants (WTP):

- Penitencia WTP Residuals Management
- Rinconada WTP Residuals Remediation
- Rinconada WTP Reliability Improvement
- Rinconada WTP Treated Water Valves Upgrade
- Santa Teresa WTP Filter Media Replacement
- WTP Electrical Improvement
- Small Capital Improvements, Water Treatment
- WTP Implementation Project

# Recycled Water:

- Expedited Purified Water Program
- South County Recycled Water Pipeline
- Land Rights South County Recycled Water Pipeline

# CIP PLANNING PROCESS AND FINANCIAL ANALYSIS

The annual CIP Planning Process starts with collecting information on proposed new capital projects in July, followed by the validation of proposed new projects, preliminary scoping, review and financial analyses to produce a Draft CIP in February.

II-2 :: 2022–2026 Five-Year Capital Improvement Program

The Board then authorizes release of the Draft CIP to the public and local municipalities for review, conducts a public hearing, and approves the resolution to adopt the Final CIP in May.

Based on the feedback from the FY 2006-07 CIP and Board direction, a concerted effort was made to develop a multi-year water charge structure that would support the priority work of the water utility business. Staff analyzed both immediate requirements and anticipated future needs to support operations and the continued appropriations for capital investment needed to maintain infrastructure and comply with water quality regulations. Each year staff reviews Board priorities, the financial needs of the Water Utility Enterprise Fund, current political and economic factors and updates the multi-year structure. The rate structure for the first year is recommended to the Board for adoption during the annual rate setting process.

While Valley Water has one Water Utility fund, Valley Water has multiple zones of benefit for the purposes of setting groundwater production charges. The North County Zone is very different from the South County Zone in that the water infrastructure is substantially separate and distinct with an entirely different cost of providing service. For example the north zone overlays the Santa Clara groundwater subbasin and is much more densely populated, requiring a large amount of imported water from outside the county to provide a reliable water supply. To receive, filter and distribute the imported water, Valley Water chose to build three water treatment plants and a network of raw water and treated water distribution pipelines many decades ago. Conversely, the South County overlays the Coyote Valley (southern Santa Clara subbasin) and the Llagas groundwater subbasins and is more sparsely populated. South County communities rely almost entirely on groundwater, with small amounts of raw surface water and recycled water. A small amount of recycled water is served in the Gilroy area. No treated water is served in South County, so water utility infrastructure primarily supports the storage and distribution of local and imported surface water for groundwater recharge.

The financial analysis of the Water Utility Enterprise Fund, the funding source for the water supply capital improvements, is conducted in conjunction with the groundwater production charge process.

After reviewing a number of scenarios, on May 11, 2021, Valley Water's Board of Directors approved and adopted staff-proposed changes in the municipal and industrial (M&I) groundwater production charges with increases of 9.1% in North County Zone W-2, 9.9% in South County Zone W-7, 4.5% for the modified South County Zone W-5 and 4.4% for South County Zone W-8 in FY 2021-22 after implementing a 0% increase in FY 2021 in light of the economic crisis spurred on by the COVID-19 pandemic.

#### Significant Project Updates From Prior Year

Listed below are the changes to projects from the FY 2021-25 Adopted CIP:

- The Pacheco Reservoir Expansion Project increased in cost by \$1.174 billion due to findings by geotechnical investigations, leading to more extensive work required than previously presumed and increased construction phase cost estimates.
- The Anderson Dam Seismic Retrofit Project increased in cost by \$102.9 million primarily due to the new Federal Energy Regulatory Commission (FERC) projects now included in the Anderson Dam Project scope and schedule.
- The Expedited Purified Water Program decreased in cost by \$85.9 million due to revised project delivery schedule. The construction schedule will begin two years sooner than previously planned, the design phase decreased by two years and the construction duration period reduced by half. This program is planned to be delivered via a Public-Private Partnership (P3).
- The Penitencia Water Treatment Plant Residuals Management Project increased in cost by \$34.5 million due to revised scope and increased construction cost estimates based on recent projects with similar scope and complexity.

- The 10-Year Pipeline Inspection and Rehabilitation Project increased in cost by \$31.9 million due to the scope of individual projects within the program have expanded to incorporate more extensive repairs, upgrades, and replacements.
- The Rinconada Water Treatment Plant Reliability Improvement Project increased in cost by \$19.3 million due to new projections for additional design and the construction of Phases 3-6 after the closeout of Phases 1 and 2 construction.
- The Rinconada Water Treatment Plant Residuals Remediation Project increased in cost by \$6.9 million due to the Design phase cost has been increased to include legal fees and the cost of a temporary mobile centrifuge rental through project completion. The construction phase schedule has been updated to reflect the estimated date of the Notice to Proceed and the most recently received 90% design construction schedule.

• The Small Capital Improvements, San Felipe Reaches 1-3 Project increased in cost by \$35.8 million due to the addition of the replacement of large pumps and motors at the Pacheco Pumping Plant beginning in FY28 as they are reaching the end of their useful life.

The majority of capital projects included in the 5-Year CIP are related to asset management, which replaces aging equipment and facilities, infrastructure reliability, which protects the county's baseline water supply, or Advanced Purified Water, which produces a drought-resilient source of water.

Valley Water is currently engaged in several critical studies related to understanding the conditions of various water supply facilities and meeting future water supply needs of the county. This effort included updating the Water Supply Master Plan, which was approved by the Board on November 20, 2019.



**II-4** :: 2022–2026 Five-Year Capital Improvement Program

The following table is a project funding schedule for water supply capital improvements resulting from this year's financial analysis. Detailed information for each project can be found in this document on the following pages in the order presented in this table. The chart also identifies partially funded projects and estimated unspent appropriation from FY 2020-21.

# **Water Supply Capital Improvements**

Project Number	PROJECT NAME	Through FY20	FY21	FY21 Unspent	FY22	FY23	FY24	FY25	FY26	FY27-36	TOTAL
	STORAGE FACILITY										
91854001	Almaden Dam Improvements	14,604	168	346	-	-	-	104	125	51,011	66,012
91864005	Anderson Dam Seismic Retrofit (C1)	62,940	36,135		126,937	77,626	70,155	52,340	47,088	174,169	647,390
91084020s	Calero and Guadalupe Dams Seismic Retrofits	32,015	2,900	1,840	1,970	585	114	13,163	26,249	184,470	261,466
91234002	Coyote Pumping Plant ASD Replacement	2,260	2,116	1,999	-	6,341	4,123	646	81	-	15,567
91234011	Coyote Warehouse	9,360	284	-	73	66	-	-	-	-	9,783
91084019	Dam Seismic Stability Evaluation	22,236	352	353	65	437	456	5,903	436	1,430	31,315
91954002	Pacheco Reservoir Expansion Project (A1)	52,366	27,911	128	30,548	45,592	48,627	235,806	304,608	1,774,466	2,519,924
91214010s	Small Capital Improvements, San Felipe Reach 1-3	n/a	5,724	-	4,517	1,565	153	1,041	112	68,491	81,603
	TRANSMISSION FACILITY										
95084002	10-Year Pipeline Rehabilitation (FY18-FY27)	55,239	16,995	4,636	16,243	25,134	11,457	12,171	1,756	2,110	141,105
92304001	Almaden Valley Pipeline Replacement Project	-	668	-	828	1,253	2,465	1,893	2,396	80,527	90,030
95044001	Distribution Systems Implementation Project	-	2,383	383	2,858	2,668	-	-	-	-	7,909
92C40357	FAHCE Implementation	-		-	-	4,739	4,379	14,691	14,690	106,609	145,108
26764001	IRP2 Additional Line Valves (A3)	1,489	634	2	313	46	1,632	2,492	2,576	2,852	12,034
26564001	Main & Madrone Pipelines Restoration (A1)	17,570		2	-	-	-	-	-	-	17,570
92144001	Pacheco/Santa Clara Conduit Right of Way Acquisition	2,827	507	5	1,657	311	-	-	-	-	5,302
95044002	SCADA Implementation Project	-	1,365		2,384	2,731	-	-	-	-	6,480
92764009	Small Capital Improvements, Raw Water Transmission	n/a	82	-	169	17	382	6,722	272	4,248	11,892
94764006	Small Capital Improvements, Treated Water Transmission	n/a			36	39	30	119	52	255	531
94084007	Treated Water Isolation Valves	1,271		1,245	-	-	2,331	-	2,439	2,642	8,683
92264001	Vasona Pump Station Upgrade	1,905	1,218	-	717	19,159	545	200	-	-	23,744
94084008	Westside Retailer Interties	147		75	_	-	-	-	-	-	147
	TREATMENT FACILITY										
93234044	PWTP Residuals Management	-	683	-	1,593	1,941	1,625	10,096	18,782	9,572	44,292
93294051s	RWTP Residuals Remediation	46,205	10,278	17,061	5,353	8,791	633	-	-	-	71,260
93294057	RWTP Reliability Improvement	220,363	31,506	221	20,620	22,455	24,570	22,700	17,660	-	359,874
93294056	RWTP Treated Water Valves Upgrade	8,624		5	6	-	-	-	-	-	8,630
93764004	Small Capital Improvements, Water Treatment	-	10,285	-	7,503	1,415	5,382	3,170	3,370	23,152	54,277
93284013	STWTP Filter Media Replacement Project	203	445	1	2,812	4,912	1,728	-	-	-	10,100
93084004	Water Treatment Plant Electrical Improvement Project	203	446		879	2,488	5,851	2,049	-	-	11,916
93044001	WTP Implementation Project	-	1,394	-	3,276	3,468	-	-	-	-	8,138
	RECYCLED WATER FACILITY										
91304001s	Expedited Purified Water Program (EPWP)	25,697	1,412	1,786	1,140	29,151	30,382	176,239	177,647	176,127	617,795
91094001	Land Rights - South County Recycled Water PL	-	203	203	345	3,407	3,606	-	-	-	7,561
91094007s	South County Recycled Water Pipeline	36,557	248	359	15,308	4,902	-	-	-	-	57,015
	TOTAL	614,081	156,342	30,650	248,150	271,239	220,626	561,545	620,339	2,662,131	5,354,453

FY 2020-21 Funds to be reappropriated

The following table shows funding requirements from each funding source for water supply capital.

# Water Supply - Funding Source (\$K)

Fund Number	FUND NAME	Through FY20	FY21	FY21 Unspent	FY22	FY23	FY24	FY25	FY26	FY27-36	TOTAL
61	Water Utility Enterprise Fund	595,022	155,708	30,646	247,837	271,193	218,994	559,053	617,763	2,659,279	5,324,849
26	Safe, Clean Water and Natural Flood Protection Fund	19,059	634	4	313	46	1,632	2,492	2,576	2,852	29,604
	TOTAL	614,081	156,342	30,650	248,150	271,239	220,626	561,545	620,339	2,662,131	5,354,453

FY 2020-21 Funds to be reappropriated

Almaden Dam **Project Improvements** Water Supply – Storage **Program** 

Project No. 91854001

Contact **Christopher Hakes** 

chakes@valleywater.org



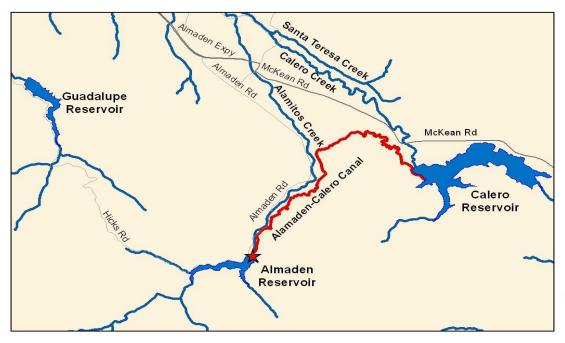
Aerial view of Almaden Dam and spillway, and part of the reservoir

#### PROJECT DESCRIPTION

This project plans, designs, and constructs improvements to the Almaden Dam outlet works to accomplish the following objectives:

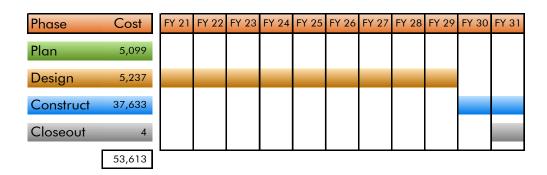
- Modify or construct a new intake structure, capable of releasing 246 cubic feet-per-second of water without flushing of sediments through the outlet works.
- Correct existing problems with the outlet energy dissipation structure, piping and valves.
- Restore operational capacity to the Almaden-Calero Canal and stabilize and improve maintenance access.

# PROJECT LOCATION





July 1995 to June 2031



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru		Planned Expenditures									
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future				
91854001-Almaden Dam Improvements	13,964	462	105	100	100	102	100	38,680	53,613			
with inflation	13,964	462	105	109	114	122	125	51,011	66,011			

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent		Plan	ned Fund	ding Requ	uests		Total
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
91854001-Almaden Dam Improvements	14,604	168	346	0	0	0	104	125	51,011	66,011

Adjusted Budget includes adopted budget plus approved budget adjustments.

#### **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	66,011
Other Funding Source	0
Total	66,011

#### **OPERATING COST IMPACTS**

The completion of this project is anticipated to decrease operating costs by approximately \$2,000 per year, beginning in FY31. Manually flushing the control valves during the winter months to remove silt will no longer be required.

**USEFUL LIFE:** 50+ Years

Anderson Dam Seismic **Project** 

Retrofit (C1) **Program** Water Supply - Storage

Project No. 91864005

Contact **Christopher Hakes** 

chakes@valleywater.org



Aerial view of Anderson Dam, spillway, and part of the reservoir

#### PROJECT DESCRIPTION

This project plans, designs, and constructs seismic retrofit or replacement of outlet works at Anderson Dam, pending completion of a field investigation that will determine whether the Coyote Fault is seismically active. Seismic stability improvements will accomplish the following objectives:

- Resolve seismic stability deficiencies to ensure public safety.
- Restore lost reservoir storage capacity resulting from the operational restriction issued by Division of Safety of Dams
- Resolve the DSOD/FERC (Federal Energy Regulatory Commission) requirements in a timely manner.

In accordance with Federal regulations, this project includes the construction of subprojects as part of the Federal Energy Regulatory Commission Order Compliance Project (FOCP). These are:

- FOCP Anderson Dam Tunnel;
- FOCP Coyote Percolation Dam Replacement;
- FOCP Cross Valley Pipeline Extension;
- FOCP Coyote Creek Flood Management Measure; and
- FOCP Coyote Creek Stream Augmentation Fish Protection Measure.

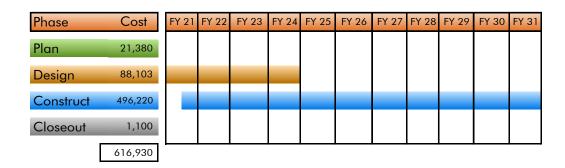
This project meets the commitments of the voter approved Safe, Clean Water Program (SCW), Project C1. For a full description of the SCW benefits and KPI's, please visit www.valleywater.org.

#### PROJECT LOCATION



Project Location

January 2011 to June 2032



#### **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru		Plo	ınned Exp	enditures				Total
Project	FY20	FY21 FY22 FY23 FY24 FY25 FY26 Future							
91864005-Anderson Dam Seismic Retrofit	63,056	35,869	126,937	71,910	66,690	49,130	43,858	159,480	616,930
with inflation	63,056	36,019	126,937	77,626	70,155	52,340	47,088	174,170	647,392

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent		Plan	ned Fund	ing Reque	ests		Total
Project	FY20	FY21		FY22	FY23	FY24	FY25	FY26	Future	
91864005-Anderson Dam Seismic Retrofit	62,940	36,135	0	126,937	77,626	70,155	52,340	47,088	174,170	647,392

Adjusted Budget includes adopted budget plus any planned budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	579,339
SCVWD Safe Clean Water Fund	68,053
Other Funding Sources	0
Total	647,392

#### **OPERATING COST IMPACTS**

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

**USEFUL LIFE:** 50+ Years

# Project Calero and Guadalupe Dams Seismic Retrofits

**Program** Water Supply - Storage

Project No. 91084020 & 91894002

Contact Christopher Hakes chakes@valleywater.org





Aerial view of the Calero Dam and reservoir

Areial view of the Guadalupe Dam, spillway, and part of the reservoir

#### PROJECT DESCRIPTION

Project 91084020: This project performs planning (engineering and environmental) for the Calero and Guadalupe Dams. Project 91894002: This project designs and constructs improvements to Guadalupe Dam.

The projects will accomplish the following objectives:

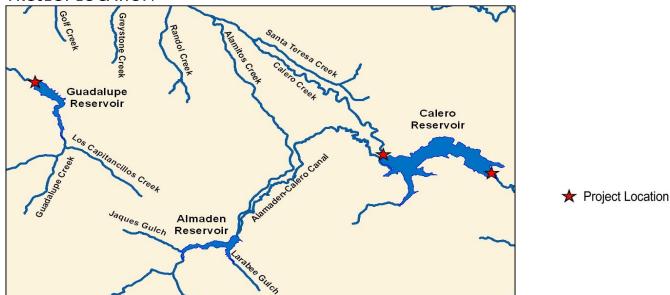
#### Calero Dam

- Stabilize the embankment to withstand a Maximum Credible Earthquake (MCE).
- Modify or replace the outlet works if determined to be inadequate.
- Modify the spillway or increase the freeboard of the dam for safe passage of the Probable Maximum Flood (PMF).
- Provide modifications that do not preclude potential future expansion of dam and reservoir to provide additional reservoir storage.
- Remove or relocate the Bailey Ranch structures and breach Fellow's Dike.

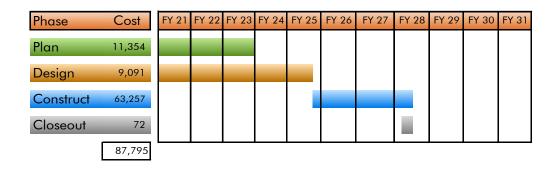
#### Guadalupe Dam

- Stabilize the embankment to withstand a MCE.
- Implement improvements as necessary for the dam system to safely pass the PMF.
- Ensure that the outlet works and hydraulic control system meet the Division of Safety of Dams requirements.
- Relocate the intake structure out of the upstream berm in a timely manner.
- Incorporate other measures to address seismic and other dam safety deficiencies that are identified through the Project delivery process.

# PROJECT LOCATION



July 2012 to January 2028



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru		Pl	anned Ex	penditure	s			Total
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future	
91084020 - Calero and Guadalupe Dams Seismic Retrofits-Planning	9,094	1,946	1,970	450	0	0	0	0	13,460
with inflation	9,094	1,946	1,970	491	0	0	0	0	13,501
91894002 - Guadalupe Dam Seismic Retrofit- Design & Construct	9,600	241	872	100	100	11,600	23,000	28,822	74,335
with inflation	9,600	241	872	109	114	13,164	26,251	33,166	83,517
TOTAL	18,694	2,187	2,842	550	100	11,600	23,000	28,822	87,795
with inflation	18,694	2,187	2,842	601	114	13,164	26,251	33,166	97,019

Actuals include project expenditures, and encumbrances.

#### **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent			Total				
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
91084020 - Calero and Guadalupe Dams Seismic Retrofits-Planning	9,476	1,564	0	1,970	491	0	0	0	0	13,501
91894002 - Guadalupe Dam Seismic Retrofit- Design & Construct	10,257	471	887	0	94	114	13,164	26,251	33,166	83,517
TOTAL	19,733	2,035	887	1,970	586	114	13,164	26,251	33,166	97,019

Adjusted Budget includes adopted budget plus approved budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	97,019
Other Funding Source	0
Total	97,019

# **OPERATING COST IMPACTS**

Operating cost impacts are anticipated and will be determined during the planning phase.

**USEFUL LIFE:** 50+ Years

Calero Dam Seismic Retrofit-Design & **Project** Construction

Water Supply - Storage **Program** 

Project No. 91874004

Contact **Christopher Hakes** 

chakes@valleywater.org



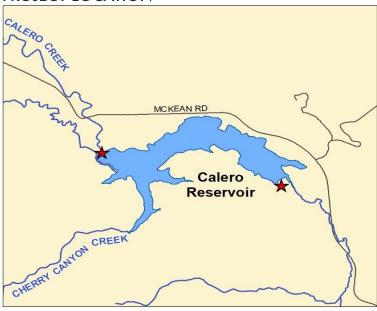
Aerial view of the Calero Dam and reservoir

# PROJECT DESCRIPTION

This project designs and constructs improvements to the Calero Dam to accomplish the following objectives:

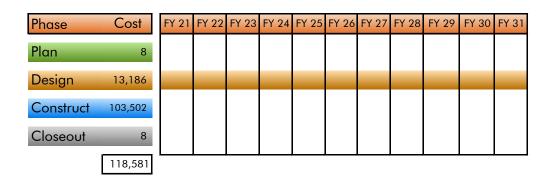
- Stabilize the embankment to withstand a Maximum Credible Earthquake.
- Modify or replace the outlet works if determined to be inadequate.
- Modify the spillway or increase the freeboard of the dam for safe passage of the Probable Maximum Flood.
- Provide modifications that do not preclude potential future expansion of dam and reservoir to provide additional reservoir storage.
- Remove or relocate the Bailey Ranch structures and breach Fellow's Dike.

# PROJECT LOCATION



Project Location

January 2015 to June 2035



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures									
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future			
91874004 - Calero Dam Seismic Retrofit-Design & Construct	11,894	300	209	100	80	30	30	105,938	118,581		
with inflation	11,894	300	209	109	91	36	37	151,777	164,453		

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent		Total					
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
91874004 - Calero Dam Seismic Retrofit-Design & Construct	12,282	865	953	0	0	0	0	0	151,306	164,453

Adjusted Budget includes adopted budget plus approved budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

Other Funding Source		0
	Total	164,453

# **OPERATING COST IMPACTS**

Operating cost impacts are anticipated and will be determined during the design phase.

**USEFUL LIFE**: 50+ Years

Coyote Pumping Plant **Project ASD Replacement** 

Program Water Supply - Storage

Project No. 91234002

Contact Heath McMahon

hmcmahon@valleywater.org



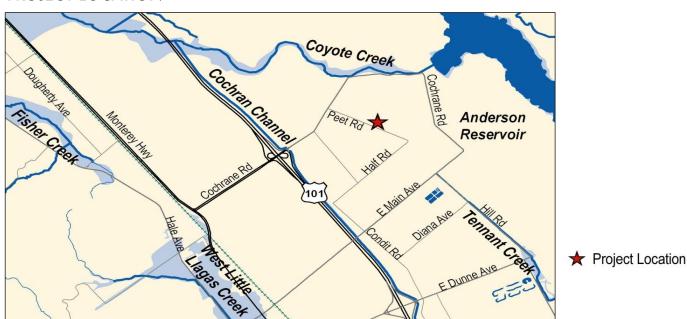
ASD motors at the Coyote Pumping Plant

#### PROJECT DESCRIPTION

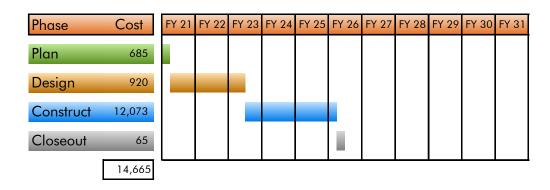
This project plans, designs, and constructs improvements to the Coyote Pumping Plant Adjustable Speed Drives (ASD) to accomplish the following objectives:

- Replace existing outdated and unsupported ASDs with the latest technology.
- Modify/convert existing six wound rotor motors to be compatible with new stator fed ASD.
- Upgrade the heating, ventilation and air conditioning system to support the additional cooling requirements.
- Modify/upgrade supervisory control and data acquisition control and instrumentation systems, and control strategy to support the new ASDs.
- Replace two main medium voltage circuit breakers and one medium voltage tie circuit breaker (switch) which are at the end of service life.
- Replace motor control equipment line-up with new switchgears.
- Installation of a pump motor vibration and a power monitoring system and motor control center.

#### PROJECT LOCATION



July 2017 to November 2025



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures								
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future		
91234002-Coyote Pumping Plant ASD Replacement	1,550	827	1,608	6,310	3,735	570	65	0	14,665	
with inflation	1,550	827	1,608	6,732	4,123	646	81	0	15,567	

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	t Planned Funding Requests						Total
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
91234002-Coyote Pumping Plant ASD Replacement	2,260	2,116	1,999	0	6,341	4,123	646	81	0	15,567

Adjusted Budget includes adopted budget plus approved budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	15,567
Other Funding Sources	0
Total	15,567

# **OPERATING COST IMPACTS**

The completion of this project is anticipated to decrease operating costs by approximately \$60,000 per year beginning in FY26.

**USEFUL LIFE**: Not Available Project Coyote Warehouse

**Program** Water Supply - Storage

Project No. 91234011 Contact Heath McMahon

hmcmahon@valleywater.org



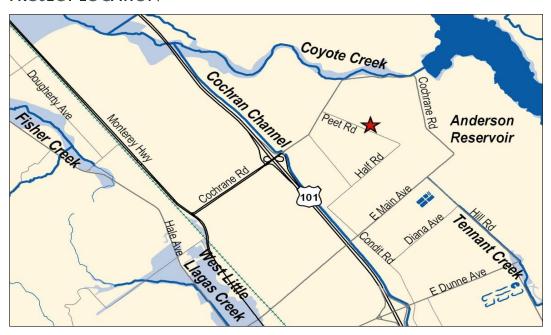
Newly constructed warehouse will be used to secure equipment and spare parts

# PROJECT DESCRIPTION

This project plans, designs, and constructs the Coyote Warehouse to accomplish the following objectives:

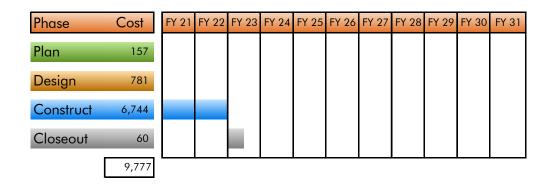
- Provide suitable storage space for pipeline spare parts and appurtenances, and to protect such materials from weather.
- Improve Valley Water's staff efficiency and effectiveness in pipeline maintance work.

# PROJECT LOCATION



★ Project Location

July 2015 to December 2022



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures							
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future	
91234011-Coyote Warehouse	9,411	233	73	60	0	0	0	0	9,777
with inflation	9,411	233	73	66	0	0	0	0	9,783

Actuals include prroject expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
91234011-Coyote Warehouse	9,360	284	0	73	66	0	0	0	0	9,783

Adjusted Budget includes adopted budget plus approved budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	9,783
Other Funding Sources	0
Total	9,783

# **OPERATING COST IMPACTS**

Operating cost impacts will be determined upon completion of the construction phase.

**USEFUL LIFE:** 50 years

Dam Seismic Stability **Project** 

**Evaluations** 

Water Supply - Storage **Program** 

Project No. 91084019

Contact Christopher Hakes

chakes@valleywater.org



Field exploration for seismic stability evaluations

# PROJECT DESCRIPTION

This project conducts preliminary planning (seismic stability evaluation) for nine dams to accomplish the following objectives:

- Address seismic stability issues.
- Provide for public safety.
- Ensure operational availability of reservoirs.
- Address protection of the assets.

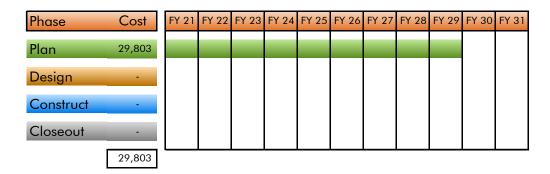
This project funds preliminary planning activities to determine the need for seismic stability improvements for eight of the nine dams identified on the map below. The evaluations for Almaden, Calero, Guadalupe, Lenihan, and Stevens Creek Dams have been completed as part of this project, while the evaluations for Coyote, Chesbro and Uvas are scheduled to continue through 2029. (The seismic stability evaluation for Anderson Dam was completed in a separate project.) Planning, design, and construction of identified seismic improvements, will be funded in the future as site-specific projects.

# PROJECT LOCATION



Project Location

August 2009 to June 2029



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures							
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future	
91084019-Dam Seismic Stability Evaluations	21,808	427	418	400	400	4,950	350	1,050	29,803
with inflation	21,808	427	418	437	456	5,903	436	1,430	31,315

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
91084019-Dam Seismic Stability Evaluations	22,236	352	353	65	437	456	5,903	436	1,430	31,315

Adjusted Budget includes adopted budget plus approved budget adjustments.

#### **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	31,315
Other Funding Source	0
Total	31,315

# **OPERATING COST IMPACTS**

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

**USEFUL LIFE:** 50+ Years

Pacheco Reservoir **Project Expansion Project (A1)** Program Water Supply – Storage

Project No. 91954002

Contact **Christopher Hakes** 

chakes@valleywater.org



Aerial view of Pacheco Reservoir

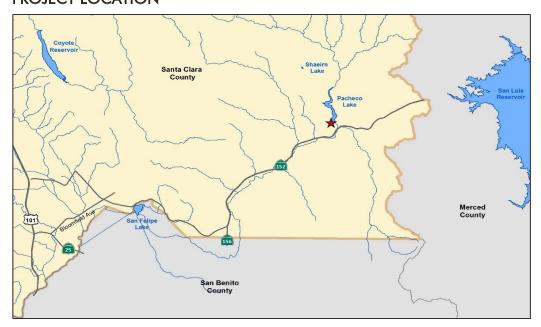
#### PROJECT DESCRIPTION

This project will include expanding the storage capacity of the existing Pacheco Reservoir to 140,000 acre-feet through construction and operation of a new dam, conveyance facilities, and related appurtenant structures. The project objectives include:

- Increase suitable habitat in Pacheco Creek for federally threatened steelhead.
- Increase water supply reliability to help meet municipal and industrial water demands in Santa Clara County during drought periods and emergencies, or to address shortages due to regulatory and environmental
- Develop water supplies for environmental water management that support habitat management and other environmental water needs.

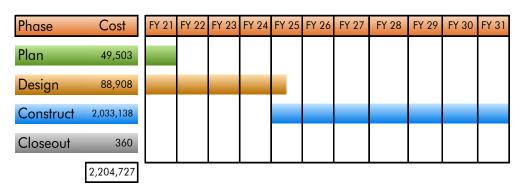
This project meets the commitments of the voter approved Safe, Clean Water Program (SCW), Project A1. For a full description of the SCW benefits and KPI's, please visit www.valleywater.org.

# PROJECT LOCATION



Project Location

December 2018 to September 2032



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures								
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future		
91954002-Pacheco Reservoir Expansion Project (A1)	52,370	27,779	30,676	41,750	42,612	207,294	267,957	1,534,289	2,204,727	
with inflation	52,370	27,779	30,676	45,592	48,627	235,806	304,608	1,774,467	2,519,926	

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
Project	FY20	FY21		FY22	FY23	FY24	FY25	FY26	Future	
91954002-Pacheco Reservoir Expansion Project (A1)	52,366	27,911	128	30,548	45,592	48,627	235,806	304,608	1,774,467	2,519,926

Adjusted Budget includes adopted budget plus approved budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	1,618,301
California Water Commission	484,550
SCVWD Safe Clean Water Fund - Measure S	10,000
Partnership Contributions	407,075
Total	2,519,926
Other Funding Sources "Unsecured" (WIIN and WIFIA)	250,000

# **OPERATING COST IMPACTS**

Operating cost impacts are anticipated and will be determined during the design phase.

USEFUL LIFE: TBD

**Small Capital Project** 

Improvements, San Felipe

Water Supply - Storage **Program** 

Project No. 91214010s Contact **Greg Williams** 

gwilliams@valleywater.org



Example of bacterial corrosion on a suction wear ring of an impeller

#### PROJECT DESCRIPTION

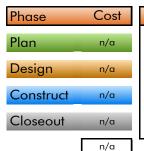
This project provides resources for the improvement of small capital investments that replace or extend the life of an asset. This project implements a systematic approach to the renewal and replacement of equipment at facilities within the San Felipe Division, by designing and constructing improvements identified through Valley Water's 10-year asset management program. Infrastructure within this project includes tunnels, large diameter pipelines, valve structures, pumps, and associated support equipment. Reach 1 renewal and replacement activities are conducted in coordination and cooperation with San Felipe Division Reach 1 contractors and other agencies. Planned projects for FY22 include:

- 91214010 Reach 1: Refurbish or rebuild pump 1 motor windings and bearings; replacement of pump 10 discharge guard valve; installation of a fire suppression system; various electrical upgrades. Other identified work: Pacheco Tunnel Reach 2 entrance door hydraulic valve operating system replacement; domestic water pump system replacement; western area power administration sub-station surge arresters - 6 kilovolt and 72 kilovolt; chilled water pump-1 and chilled water pump-2 standard rebuild and rehabilitation; mechanical & heating, ventilation and air conditioning gallery upgrades; chiller 1 and 2 repair and rehabilitation; adjustable speed drives gallery, Telephone/Modem/T-1 replacement.
- 91224010 Reach 2: Calaveras Fault Inlet/Calaveras Fault Outlet road access fix (culvert replacements).
- 91234010 Reach 3: Replace existing end-of-life staff trailers. Purchase and install mezzanine and shelving in new warehouse. Coyote Discharge Line – Replace meter vault instrumentation, overhaul and recoat 2 pumps at Coyote Pumping Plant.
- All active projects have positive net present value savings at the time of the feasibility study and are subject to design phase validation.

#### PROJECT LOCATION



This project is part of a regularly scheduled 10-year maintenance and asset management program. Traditional planning, design, and construction phases do not apply.



FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31

# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures									
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future			
91214010-Small Capital Improvements, San Felipe Reach 1	n/a	3,811	2,256	1,394	89	864	90	44,924	53,428		
with inflation	n/a	3,811	2,256	1,522	102	1,030	112	65,284	74,117		
91224010-Small Capital Improvements, San Felipe Reach 2	n/a	859	930	0	0	0	0	10	1,799		
with inflation	n/a	859	930	0	0	0	0	12	1,801		
91234010-Small Capital Improvements, San Felipe Reach 3	n/a	1,054	1,331	39	45	9	0	2,432	4,910		
with inflation	n/a	1,054	1,331	43	51	11	0	3,195	5,684		
TOTAL	0	5,724	4,517	1,433	134	873	90	47,366	60,137		
with inflation	0	5,724	4,517	1,565	153	1,041	112	68,490	81,602		

#### **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent			Total				
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
91214010-Small Capital Improvements, San Felipe Reach 1	n/a	3,811	0	2,256	1,522	102	1,030	112	65,284	74,117
91224010-Small Capital Improvements, San Felipe Reach 2	n/a	859	0	930	0	0	0	0	12	1,801
91234010-Small Capital Improvements, San Felipe Reach 3	n/a	1,054	0	1,331	43	51	11	0	3,195	5,684
TOTAL	0	5,724	0	4,517	1,565	153	1,041	112	68,490	81,602

Adjusted Budget includes adopted budget plus approved budget adjustments. Small Capital Improvement projects do not carry forward unspent funds from one fiscal year to the next. Unspent funds are returned to fund reserves at the close of each fiscal year and new funding is provided in the next fiscal year.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	62,645
San Benito County Water District	18,958
Total	81,602

#### **OPERATING COST IMPACTS**

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

**USEFUL LIFE**: Not Available

10-Year Pipeline **Project** 

Inspection & Rehabilitation

**Program** Water Supply - Transmission

Project No. 95084002

Contact Heath McMahon

hmcmahon@valleywater.org



A typical rehabilitated line valve assembly

#### PROJECT DESCRIPTION

The project develops Valley Water's large diameter Pipeline Management Strategy and a 10-year program for implementation tasks associated with the strategy. This program involves the inspection, planning, and design activities required for renewal of Valley Water's large pipelines and tunnels. The project includes the following objectives:

- Perform dewatering and internal inspections of Valley Water's pipelines and tunnels.
- Renew distressed pipe sections as required. Renewal encompasses the actions of repair, rehabilitation, and replacement.
- Perform condition assessment, maintenance, repair, coating, and other activities as required.
- Replace line valves, flow meters, pipeline appurtenance assemblies, and piping as required.
- Improve system performance by installing cathodic protection systems, acoustic fiber optic monitoring of prestressed concrete cylinder pipe, and transient pressure monitoring systems.
- Development of a pipeline asset risk management system that includes geographic information system, databases, algorithms, models, data acquisition, program documents, and decision support systems.

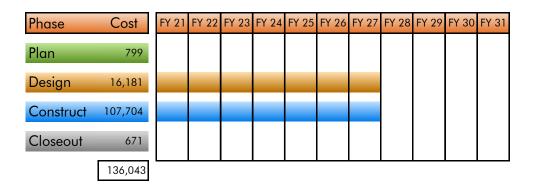
The project schedule includes inspection and renewal work along the various pipelines and tunnels as identified below:

- 2021: Central Pipeline; Parallel East Pipeline; Santa Clara Conduit Phase I, Santa Clara Tunnel
- 2022: Santa Clara Conduit Phase II, Almaden Valley Pipeline
- 2023: Snell Pipeline Phase I
- 2024: West Pipeline Phase I
- 2025: West Pipeline Phase II

# PROJECT LOCATION



July 2017 to June 2027



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures									
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future			
95084002-10-Year Pipeline Inspection & Rehabilitation	48,714	18,884	20,879	23,517	10,252	10,768	1,409	1,620	136,043		
with inflation	48,714	18,884	20,879	25,134	11,457	12,171	1,756	2,110	141,104		

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	t Planned Funding Requests					Total	
Project	FY20	FY:	21	FY22	FY23	FY24	FY25	FY26	Future	
95084002-10-Year Pipeline Inspection & Rehabilitation	55,239	16,995	4,636	16,243	25,134	11,457	12,171	1,756	2,110	141,104

Adjusted Budget includes adopted budget plus any planned budget adjustment.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	141,104
Other Funding Sources	0
Total	141,104

# **OPERATING COST IMPACTS**

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

**USEFUL LIFE:** 50+ Years

**Almaden Valley Pipeline Project** 

Replacement

Water Supply - Transmission **Program** 

Project No. 92304001

Contact Heath McMahon

hmcmahon@valleywater.org



Almaden Valley Pipeline Replacement work is underway

#### PROJECT DESCRIPTION

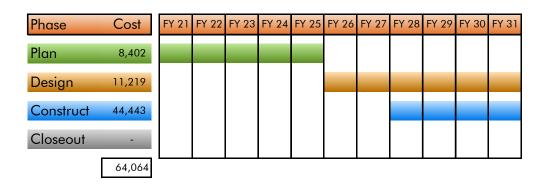
The Almaden Valley Pipeline (AVP) is a part of the Valley Water raw water delivery system. This pipeline is used to supply raw water to Valley Water's water treatment plants and groundwater recharge facilities. This pipeline provides access, with no redundancy, to local raw water sources from Valley Water's Anderson and Calero Reservoirs and imported water from the United States Bureau of Reclamation San Luis Reservoir and San Felipe system. The AVP was constructed in two major units/phases: Unit 1 was constructed in the 1960s and Unit 2 was constructed in the 1980s. The AVP is approximately 12 miles in length consisting of 72-inch up to 78-inch diameter prestressed concrete cylinder pipe (approximately 7.5 miles), welded steel pipe and bar wrapped pipe (approximately 4.2 miles).

# PROJECT LOCATION



Project Location

July 2019 to June 2040



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures								
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future		
92304001-Almaden Valley Pipeline Replacement	0	668	828	1,147	2,160	1,587	1,923	55,751	64,064	
with inflation	0	668	828	1,253	2,465	1,893	2,396	80,525	90,027	

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY20	FY21		FY22	FY23	FY24	FY25	FY26	Future	
92304001-Almaden Valley Pipeline Replacement	0	668	0	828	1,253	2,465	1,893	2,396	80,525	90,027

Adjusted Budget includes adopted budget plus approved budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	90,027
Other Funding Sources	0
Total	90,027

# **OPERATING COST IMPACTS**

Operating cost impacts will be determined during the design phase.

USEFUL LIFE: 50+ Years

Distribution System Project Implementation Project

Water Supply - Transmission **Program** 

Project No. 95044001

Contact Bhavani Yerrapotu

byerrapotu@valleywater.org

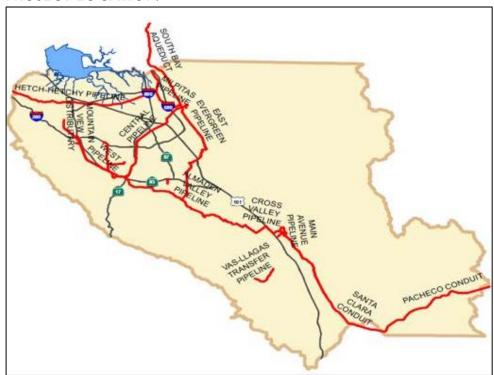


Distribution System Implementation Plan

# PROJECT DESCRIPTION

This project will develop a comprehensive 30-year implementation plan to identify improvements to Valley Water's raw and treated water systems based on current demands, future growth, and emergencies. The project will optimize our raw and treated water distribution systems, evaluate retailer needs, recommend direct capital actions needed to protect existing distribution systems, and result in a programmatic EIR.

# **PROJECT LOCATION**



**Project Location** 

June 2020 to June 2023

Phase	Cost	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31
Plan	7,319											
Design	365											
Construct	-											
Closeout												
	7,684											

# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru		Planned Expenditures										
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future					
95044001-Distribution System Implementation Project	0	2,000	3,241	2,443	0	0	0	0	7,684				
with inflation	0	2,000	3,241	2,668	0	0	0	0	7,909				

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent		Plan	ned Fund	ling Requ	uests		Total
Project	FY20	FY21		FY22	FY23	FY24	FY25	FY26	Future	
95044001-Distribution System Implementation Project	0	2,383	383	2,858	2,668	0	0	0	0	7,909

Adjusted Budget includes adopted budget plus approved budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	7,909
Other Funding Sources	0
Total	7,909

# **OPERATING COST IMPACTS**

This project is not anticipated to increase or decrease annual operating costs, as the project is a planning and design effort. Projects and programs identified through the implementation plan will have their own operating cost impacts identified as they come online.

**USEFUL LIFE:** Not Available **Project FAHCE Implementation** 

Water Supply - Transmission Program

Project No. 92C40357 Contact John Bourgeois

ibourgeois@valleywater.org



Fish habitats, such as the one shown here, will be developed for habitat conservation

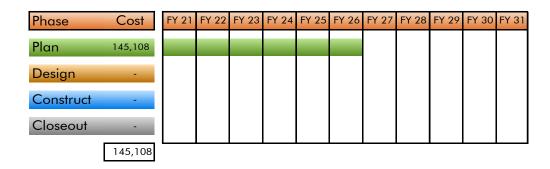
# PROJECT DESCRIPTION

In 1996, Guadalupe-Coyote Resource Conservation District (GCRCD) filed a water rights complaint against the district alleging degraded fish, wildlife, water quality and other beneficial uses in Coyote Creek, Guadalupe River and Stevens Creek. The 1997 listing of Central California Coast Steelhead as a threatened species under Federal Endangered Species Act requires Valley Water to obtain permits to address the impacts of its water supply activities on aquatic habitat and instream flows. In 2003, a settlement agreement was initialed by parties involved. Valley Water is the process of preparing a Fish Habitat Restoration Plan (FHRP) and associated environmental impact report to complete the water rights change petitions, resolve the water rights complaint and address issues raised in the 2003 Settlement Agreement. The FAHCE program consists of reservoir reoperations to support salmonid spawning, rearing and migration; provide fish passage and aquatic habitat restoration measures, and to adaptively manage FHRP implementation in the Guadalupe River, Coyote Creek and Stevens Creek watersheds (Three Creeks).

#### PROJECT LOCATION

Project sites will be located at reservoirs and streams within the Three Creeks Project Area, in the Guadalupe, Coyote and Stevens Creek Watersheds. Project site locations are yet to be determined and no map is provided.

July 2020 to June 2026



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures									
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future			
92C40357-FAHCE Implementation	0	0	0	4,739	4,379	14,691	14,690	106,609	145,108		
with inflation	0	0	0	4,739	4,379	14,691	14,690	106,609	145,108		

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	·						Total	
Project	FY20	FY21		FY22	FY23	FY24	FY25	FY26	Future	
92C40357-FAHCE Implementation	0	0	0	0	4,739	4,379	14,691	14,690	106,609	145,108

Adjusted Budget includes adopted budget plus approved budget adjustments.

#### **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	145,108
Other Funding Source	0
Total	145,108

# **OPERATING COST IMPACTS**

Operating cost impacts will be dependent on the maintenance requirements of each site. Once the sites have been identified, operating costs will be determined based on the existing conditions and maintenance identified for each site.

**USEFUL LIFE:** Not Available

IRP2 Additional Line Project

Valves (A3)

**Program** Water Supply – Transmission

Project No. 26764001 Contact Heath McMahon

hmcmahon@valleywater.org



New line valves, actuators, and vaults similar to this will be installed along the East, West, and Snell pipelines

# PROJECT DESCRIPTION

This project plans, designs, and constructs four additional line valves in the treated water distribution system, as defined in the Water Infrastructure Reliability Plan, Phase 2 (IRP2). Design and construction of this project will be in conjunction with work on the same pipelines under the 10- year Pipeline Inspection and Rehabilitation Project. The new line valves will be at various locations along the East, West, and Snell pipeline to accomplish the following objectives:

- Allow Valley Water to isolate sections of the treated water pipeline for general maintenance or to repair activities following a major seismic event.
- Allow the network of emergency wells to operate, even when there is damage upstream and downstream of individual wells.

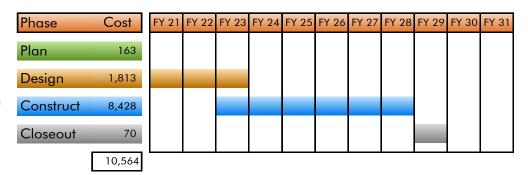
This project meets the commitments of the Safe, Clean Water Program (SCW), Project A3. For a full description of the SCW benefits and KPIs, please visit www.valleywater.org.

# PROJECT LOCATION



July 2018 to June 2029

Line valve construction to be coordinated with pipeline maintenance and rehabilitation projects.



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures									
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future			
26764001-IRP2 Additional Line Valves (A3)	949	1,172	315	42	1,470	2,182	2,182	2,252	10,564		
with inflation	949	1,172	315	46	1,632	2,492	2,576	2,851	12,032		

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent		Plan	ned Fund	ling Requ	uests		Total
Project	FY20	FY21		FY22	FY23	FY24	FY25	FY26	Future	
26764001-IRP2 Additional Line Valves (A3)	1,489	634	2	313	46	1,632	2,492	2,576	2,851	12,032

Adjusted Budget includes adopted budget plus approved budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

Total	12,032
Other Funding Source	0
SCVWD Safe Clean Water Fund	12,032

# **OPERATING COST IMPACTS**

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

**USEFUL LIFE:** 35 Years

# Project Main & Madrone Pipelines Restoration (A1)

Program Water Supply - Transmission

Project No. 26564001

#### Contact Heath McMahon hmcmahon@valleywater.org





Main Avenue Ponds facing North

Madrone Pipeline Outlet into Madrone Channel looking North along Northbound Interstate 101

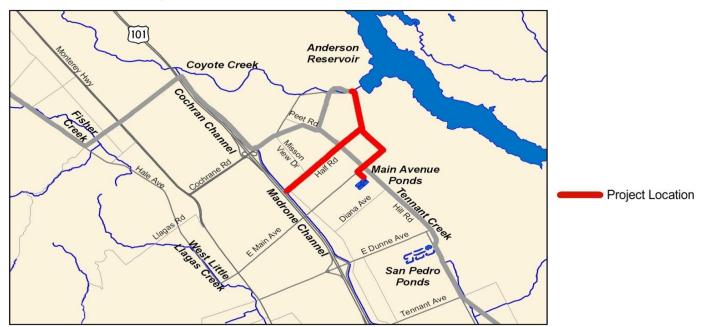
#### PROJECT DESCRIPTION

This project plans, designs, and constructs improvements on the full length of the Madrone Pipeline and rehabilitates the Main Avenue Pipeline to accomplish the following objectives:

- Provide the means to utilize another reliable water source, (e.g. Anderson Reservoir) to supply water to the Main Avenue Ponds and the Madrone Channel.
- Allow for greater flows to the Main Avenue Ponds and the Madrone Channel.
- Maximize imported water flows to the treatment plants.

This project meets the commitments of the voter approved Safe, Clean Water Program (SCW), Project A1. For a full description of the SCW benefits and KPIs, please visit www.valleywater.org.

#### PROJECT LOCATION



July 2014 to June 2021

Phase	Cost	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31
Plan	346											
Design	3,092											
Construct	13,585											
Closeout	225											
	17,568											

# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru		Planned Expenditures									
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future				
26564001-Main & Madrone Pipelines Restoration (A1)	17,343	225	0	0	0	0	0	0	17,568			
with inflation	17,343	225	0	0	0	0	0	0	17,568			

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
26564001-Main & Madrone Pipelines Restoration (A1)	17,570	0	2	0	0	0	0	0	0	17,570

Allocated funding exceeds total planned expenditures by approximately \$2,000. Excess funds will be returned to Fund Reserves at the close of the project.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Safe, Clean Water Fund		6,354
SCVWD Water Utility Enterprise Fund		11,214
	Total	17,568

# **OPERATING COST IMPACTS**

The completion of this project is not anticipated to increase or decrease annual operating costs, as it does not significantly alter the facility or modes of operation.

**USEFUL LIFE:** 40 Years

Pacheco/Santa Clara Conduit Right of Way **Project** 

Acquisition

Water Supply – Transmission Program

Project No. 92144001

Contact Heath McMahon

hmcmahon@valleywater.org



Access to much of the San Felipe Division pipelines must currently be made through private property, due to a lack of easements, such as Bloomfield access at Vault 21-23

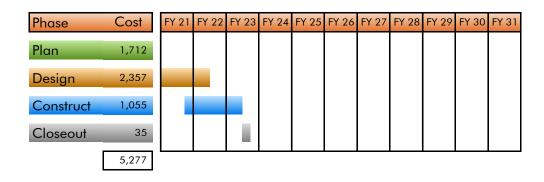
# PROJECT DESCRIPTION

This project plans, designs, and constructs improvements related to the acquisition of right-of-way along the South County pipelines to accomplish the following objectives:

- Provide unlimited access to Valley Water-owned pipelines.
- Reduce conflicts with local land owners and improve response time for emergency repairs or operations.



July 2009 to March 2023



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures										
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future				
92144001-Pacheco/Santa Clara Conduit Right of Way Acquisition	1,810	1,519	1,662	286	0	0	0	0	5,277			
with inflation	1,810	1,519	1,662	311	0	0	0	0	5,302			

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	· ·							Total
Project	FY20	FY21		FY22	FY23	FY24	FY25	FY26	Future	
92144001-Pacheco/Santa Clara Conduit Right of Way Acquisition	2,827	507	5	1,657	311	0	0	0	0	5,302

Adjusted Budget includes adopted budget plus approved budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	5,275
San Benito County Water District	27
Tot	al 5,302

### **OPERATING COST IMPACTS**

The completion of this project is anticipated to increase operating costs by approximately \$8,000 per year, beginning in FY23, for vegetation control and/or maintenance of fences, gates and locks for the access roads.

**USEFUL LIFE:** 15-20 Years

**SCADA Implementation Project** 

**Project** 

**Program** Water Supply - Transmission

Project No. 95044002

Bhavani Yerrapotu Contact

byerrapotu@valleywater.org



Process control / SCADA system

### PROJECT DESCRIPTION

The process control/supervisory control and data acquisition (SCADA) systems, which serve a pivotal role in monitoring and controlling Valley Water's raw water conveyance system (including reservoirs and pumping plants), treatment plants, and distribution systems, are aging and in need of a coordinated replacement and upgrade.

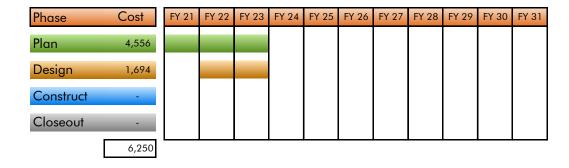
The proper functioning of these systems is essential for meeting water demand, maintaining water quality, achieving regulatory compliance, and satisfying customer expectations. In addition, the process control/SCADA systems provide important data used accross the organization in the Operations, Maintenance, Water Quality, and Management divisions. Improved access to the data provided by this project will allow for more efficient management and operation of all the complex facilities and systems involved.

# **PROJECT LOCATION**



**Project Location Project Location** 

July 2020 to June 2023



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures									
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future			
95044002-SCADA Implementation Project	0	1,365	2,384	2,501	0	0	0	0	6,250		
with inflation	0	1,365	2,384	2,731	0	0	0	0	6,480		

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	· · · · · · · · · · · · · · · · · · ·							Total
Project	FY20	FY21		FY22	FY23	FY24	FY25	FY26	Future	
95044002-SCADA Implementation Project	0	1,365	0	2,384	2,731	0	0	0	0	6,480

Adjusted Budget includes adopted budget plus approved budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	6,480
Other Funding Sources	0
Total	6,480

### **OPERATING COST IMPACTS**

This project is not anticipated to increase or decrease annual operating costs, as the project is a planning and design effort. Projects identified through this implementation project will have their own operating cost impacts identified as they come online.

**USEFUL LIFE:** Not Available Small Capital

Project Improvements, Raw Water

**Transmission** 

**Program** Water Supply – Transmission

Project No. 92764009

Contact Greg Williams

gwilliams@valleywater.org



Major repair and replacement of turnout roofs and similar small raw water capital projects will be completed in accordance with the asset management plan.

### PROJECT DESCRIPTION

This project provides resources for the improvement of small capital investments that replace or extend the life of an asset. This project will repair or rehabilitate various existing raw water distribution facilities. These activities include identifying and fixing corrosion problems, replacing valves and other appurtenances and modifying water recharge facilities to avoid failure of the raw water transmission system and extend the life of the infrastructure. This project is part of Valley Water's 10-year asset management program. Planned projects for FY22 include:

- · Vasona Pumping Plant security fencing.
- Turnout roof replacements.
- Purchase spare parts for inventory.
- Calero Reservoir Inlet Flowmeters Replacement.
- Permanent Valley Habitat Plan buyout of all work areas within District Fee (for Cross Valley Pipeline and Recharge sites).
- Recycled water pipeline video inspection.



This project is part of a regularly scheduled 10-year maintenance and asset management program.

Traditional planning, design, and construction phases do not apply.

Phase	Cost	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31
Plan	n/a											
Design	n/a											
Construct	n/a											
Closeout	n/a											
	n/a							I				

# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures									
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future	ı		
92764009-Small Capital Improvements, Raw Water Transmission	n/a	82	169	16	335	5,637	218	2,886	9,343		
with inflation	n/a	82	169	17	382	6,722	272	4,248	11,893		

### **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	·							Total
Project	FY20	FY21		FY22	FY23	FY24	FY25	FY26	Future	
92764009-Small Capital Improvements, Raw Water Transmission	n/a	82	0	169	17	382	6,722	272	4,248	11,893

Adjusted Budget includes adopted budget plus approved budget adjustments. Small Capital Improvement projects do not carry forward unspent funds from one fiscal year to the next. Unspent funds are returned to fund reserves at the close of each fiscal year and new funding is provided in the next fiscal year.

### **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	11,893
Other Funding Source	0
Total	11,893

# **OPERATING COST IMPACTS**

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

**USEFUL LIFE:** Not Available **Small Capital** 

Improvements, Treated **Project** 

Water Transmission

Water Supply – Transmission **Program** 

Project No. 94764006 Contact **Greg Williams** 

gwilliams@valleywater.org



Valve installation in the Piedmont Line Valve Vault; Similar small capital projects will be carried out at treated water transmission facilities according to the asset management plan.

### PROJECT DESCRIPTION

This project provides resources for the improvement of small capital investments that replace or extend the life of an asset. This project will repair or rehabilitate various existing treated water distribution facilities, such as identifying and treating corrosion problems, replacing valves and other appurtenances and repairing or adding turnouts to avoid failure of the treated water transmission system and to extend the life of the infrastructure. This project is part of Valley Water's 10-year asset management program. Planned projects for FY22 include:

Treated water meter replacements.



This project is part of a regularly scheduled 10-year maintenance and asset management program.

Traditional planning, design, and construction phases do not apply.

Phase	Cost	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31
Plan	n/a											
Design	n/a											
Construct	n/a											
Closeout	n/a											
	n/a											

# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures									
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future			
94764006-Small Capital Improvements, Treated Water Transmission	n/a	0	36	36	26	100	42	175	415		
with inflation	n/a	0	36	39	30	119	52	256	532		

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
94764006-Small Capital Improvements, Treated Water Transmission	n/a	0	0	36	39	30	119	52	256	532

Small Capital Improvement projects do not carry forward unspent funds from one fiscal year to the next. Unspent funds are returned to fund reserves at the close of each fiscal year and new funding is provided in the next fiscal year.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	532
Other Funding Source	0
Tota	532

# **OPERATING COST IMPACTS**

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

**USEFUL LIFE:** Not Available

**Treated Water Isolation Project** 

Valves

Water Supply – Transmission **Program** 

Project No. 94084007

Contact Heath McMahon

hmcmahon@valleywater.org



New line valves similar to this will be installed at three locations within the treated water system

### PROJECT DESCRIPTION

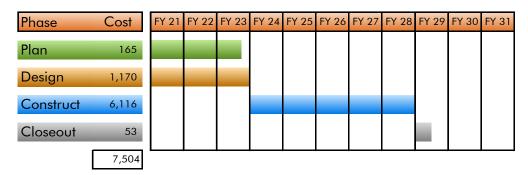
This project plans, designs, and constructs three (3) additional line valve appurtenances to accomplish the following objectives:

- Improve service levels to treated water system customers in a major hazard event or system outage.
- Improve Valley Water's ability to take sections of the treated water distribution system out of service for maintenance activities.



December 2018 to December 2028

Line valve construction to be coordinated with other pipeline maintenance and rehabilitation projects.



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures								
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future		
94084007-Treated Water Isolation Valves	26	0	991	139	2,197	0	2,064	2,087	7,504	
with inflation	26	0	991	152	2,433	0	2,439	2,643	8,683	

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
94084007-Treated Water Isolation Valves	1,271	0	1,245	0	0	2,331	0	2,439	2,643	8,683

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	8,683
Other Funding Sources	0
Total	8,683

# **OPERATING COST IMPACTS**

The operating budget impact for the three proposed line valve facilities is estimated to be \$21,000 per year beginning in FY28.

**USEFUL LIFE:** 50 Years

Vasona Pump Station **Project** 

Upgrade

**Program** Water Supply - Transmission

Project No. 92264001

Contact Heath McMahon

hmcmahon@valleywater.org



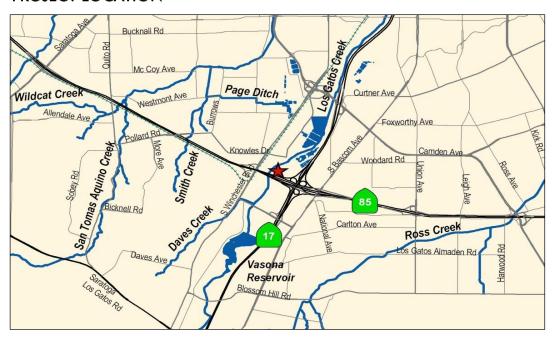
Vasona Pump Station

#### PROJECT DESCRIPTION

This project plans, designs, and constructs improvements to the Vasona Pump Station, including replacing aging pumps, motors, drives, valves, actuators, and electrical and control systems that have reached the end of their useful life; and adding one redundant pump. The project will accomplish the following objectives:

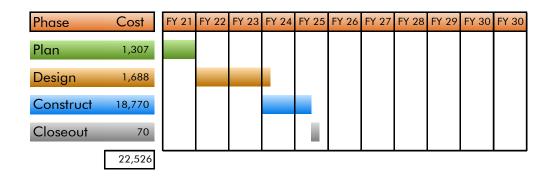
- Eliminate the risk of failure by replacing assets that have reached the end of their useful life, including four pumps (two 200 horsepower, two 400 horsepower) and associated motors, drives, electrical and control systems, as well as pump discharge and suction valves and actuators.
- Increase operational flexibility and prepare for future capacity needs by adding one redundant pump and increasing the size of all pumps.

# PROJECT LOCATION



★ Project Location

July 2017 to February 2025



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures								
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future		
92264001-Vasona Pump Station Upgrade	1,328	1,795	717	18,040	478	168	0	0	22,526	
with inflation	1,328	1,795	717	19,159	545	200	0	0	23,745	

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	t Planned Funding Requests						Total
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
92264001-Vasona Pump Station Upgrade	1,905	1,218	0	717	19,159	545	200	0	0	23,745

Adjusted Budget includes adopted budget plus approved budget adjustments.

### **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	23,745
Other Funding Sources	0
Total	23,745

### **OPERATING COST IMPACTS**

The completion of this project is anticipated to reduce Valley Water maintenance costs about 50%; starting in FY25, operating and maintenance costs will be approximately \$70,000 per year.

**USEFUL LIFE:** 50 Years Project Westside Retailer Interties

Program Water Supply – Transmission

Project No. 94084008

Contact Heath McMahon

hmcmahon@valleywater.org



New interties similar to this will be installed in the cities of Santa Clara and Mountain View.

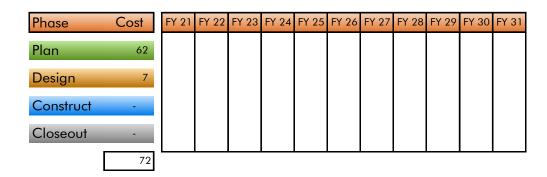
# PROJECT DESCRIPTION

This project plans, designs, and constructs two new retailer interties and associated appurtenances, structures, and controls in the cities of Santa Clara and Mountain View. The project will accomplish the following objectives:

- Improve service levels to the West treated water system customers in a major hazard event or system outage.
- Improve Valley Water's ability to take sections of the West treated water distribution system out of service for maintenance activities.



April 2018 to January 2021



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures								
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future		
94084008-Westside Retailer Interties	72	0	0	0	0	0	0	0	72	
with inflation	72	0	0	0	0	0	0	0	72	

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests					Total	
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
94084008-Westside Retailer Interties	147	0	75	0	0	0	0	0	0	147

Funding exceeds planned expenditures by approximately \$75,000. Excess funding will be returned to reserves upon completion of the project.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	147
Other Funding Sources	0
Total	147

# **OPERATING COST IMPACTS**

N/A

**USEFUL LIFE**: 50 Years

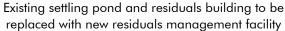
# Project PWTP Residuals Management

**Program** Water Supply - Treatment

Project No. 93234044

# Contact Heath McMahon hmcmahon@valleywater.org







Existing belt press to be replaced with new residuals management facility

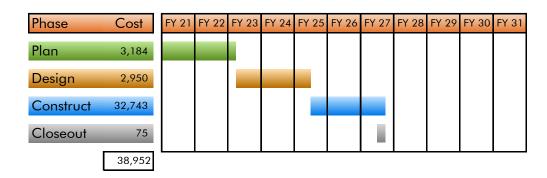
### PROJECT DESCRIPTION

This project plans, designs, and constructs modifications to the Penitencia Water Treatment Plant (PWTP) residuals management process to accomplish the following objectives:

- Extend the useful life of the treatment plant.
- Improve the efficiency of the residual management processes.
- Minimize or eliminate (existing) operational constraints and impacts to the drinking water treatment process.
- Minimize risk of discharge violations.
- Improve the reliability of PWTP.
- Install a new washwater clarification facility.



July 2020 to March 2027



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures							
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future	
93234044-PWTP Residuals Management	0	683	1,593	1,777	1,424	8,843	16,371	8,261	38,952
with inflation	0	683	1,593	1,941	1,625	10,096	18,783	9,572	44,291

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent Planned Funding Requests							Total
Project	FY20	FY21		FY22	FY23	FY24	FY25	FY26	Future	
93234044-PWTP Residuals Management	0	683	0	1,593	1,941	1,625	10,096	18,783	9,572	44,291

Adjusted Budget includes adopted budget plus approved budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	44,291
Other Funding Sources	0
Total	44,291

# **OPERATING COST IMPACTS**

Operating cost impacts will be determined during the construction phase.

**USEFUL LIFE**: Not Available

# Project RWTP Residuals Remediation

**Program** Water Supply - Treatment

Project No. 93294051s

Contact Heath McMahon hmcmahon@valleywater.org





Centrifuge for mechanical dewatering of sludge

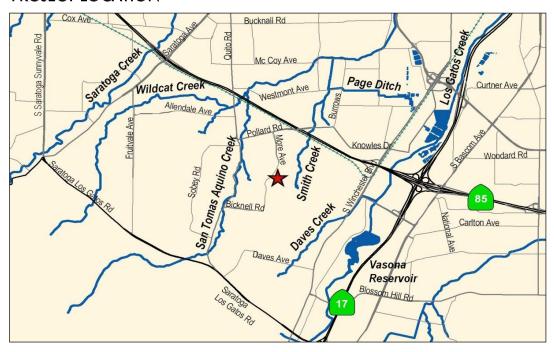
New gravity thickeners and mix tank for sludge thickening and blending

# PROJECT DESCRIPTION

This project plans, designs, and constructs modifications to the Rinconada Water Treatment Plant (RWTP) residuals management processes and will accomplish the following objectives:

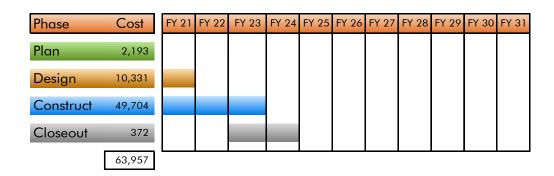
- Extend the useful life of the treatment plant.
- Improve the efficiency of the residual management processes.
- Minimize risk of discharge violations.
- Improve the reliability of RWTP.

# PROJECT LOCATION



★ Project Location

July 2008 to June 2024



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru		Planned Expenditures									
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future				
93294051-RWTP FRP Residuals Management	31,713	190	1	0	0	0	0	0	31,904			
with inflation	31,713	190	1	0	0	0	0	0	31,904			
93294058-RWTP Residuals Remediation	5,319	2,200	15,744	8,235	555	0	0	0	32,053			
with inflation	5,319	2,200	15,744	8,791	633	0	0	0	32,687			
TOTAL	37,032	2,390	15,745	8,235	555	0	0	0	63,957			
with inflation	37,032	2,390	15,745	8,791	633	0	0	0	64,591			

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget								
Project	FY20	FY21		FY22	FY23	FY24	FY25	FY26	Future	
93294051-RWTP FRP Residuals Management	38,573	0	6,670	0	0	0	0	0	0	38,573
93294058-RWTP Residuals Remediation	7,632	10,278	10,391	5,353	8,791	633	0	0	0	32,687
TOTAL	46,205	10,278	17,061	5,353	8,791	633	0	0	0	71,260

Adjusted Budget includes adopted budget plus approved budget adjustments. Funding exceeds planned expenditures by approximately \$6,669,000. Excess funding will be returned to reserves upon project completion.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	71,260
Other Funding Source	0
Total	71,260

### **OPERATING COST IMPACTS**

The completion of this project is anticipated to decrease annual operating costs by approximately \$200,000 per year starting in FY24.

**USEFUL LIFE:** Structures – 50 Years, Mechanical Equipment – 15 Years, Electrical Equipment – 10 Years

# Project RWTP Reliability Improvement

**Program** Water Supply - Treatment

Project No. 93294057

Contact Heath McMahon hmcmahon@valleywater.org





Aerial view of the Rinconada Water Treatment Plant facing west

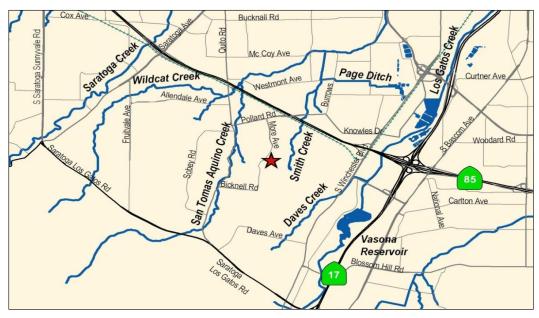
Artist rendering of the aerial view of the Rinconada Water Treatment Plant facing south after construction

### PROJECT DESCRIPTION

This project plans, designs, and constructs new facilities at Rinconada Water Treatment Plant (RWTP) that will improve plant reliability by accomplishing the following objectives:

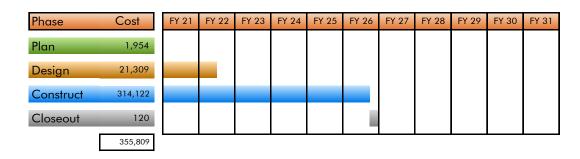
- Construct a new raw water ozonation facility.
- Construct a new flocculation and plate settler clarification facility.
- Implement a dual media filtration system.
- Increase RWTP capacity to 100 million gallons per day.

### PROJECT LOCATION



Project Location

July 2009 to June 2026



#### **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru		Planned Expenditures										
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future					
93294057-RWTP Reliability Improvement	220,257	31,391	20,841	21,120	23,680	21,780	16,740	0	355,809				
with inflation	220,257	31,391	20,841	22,455	24,570	22,700	17,660	0	359,874				

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. dj. Budget Unspent Planned Funding Requests							Total
Project	FY20	FY21		FY22	FY23	FY24	FY25	FY26	Future	
93294057-RWTP Reliability Improvement	220,363	31,506	221	20,620	22,455	24,570	22,700	17,660	0	359,874

Adjusted Budget includes adopted budget plus approved budget adjustments.

#### **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	359,874
Other Funding Source	0
Total	359,874

# **OPERATING COST IMPACTS**

The completion of this project is anticipated to increase operating costs by approximately \$1.4 million per year, beginning in FY26. Increases are for routine maintenance and operation of new equipment.

**USEFUL LIFE:** Media – 20 Years, Structures – 50 Years, Equipment – 15 Years

**RWTP Treated Water Project** Valves Upgrade

Program Water Supply – Treatment

Project No. 93294056

Contact Heath McMahon

hmcmahon@valleywater.org



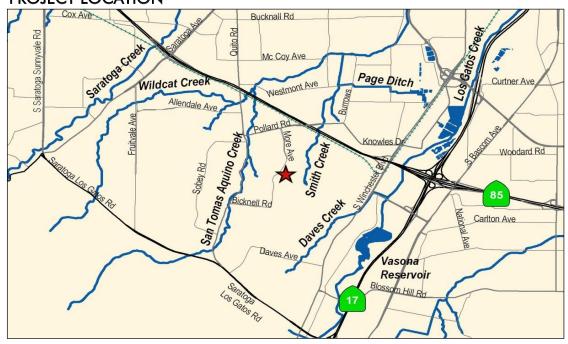
Example of a valve to be replaced or upgraded

#### PROJECT DESCRIPTION

This project plans, designs, and constructs modifications to the Rinconada Water Treatment Plant (RWTP), including seismically strengthening the chemical storage structures; replacing/upgrading the valves and appurtenances used to control treated water at the clearwells and the Rinconada Reservoir; repairing a damaged baffle wall in the Rinconada Reservoir; and installing a 48-inch magnetic flow meter on the treatment plant's treated water effluent pipeline. Consistent with the Facility Renewal Program, this project will accomplish the following objectives:

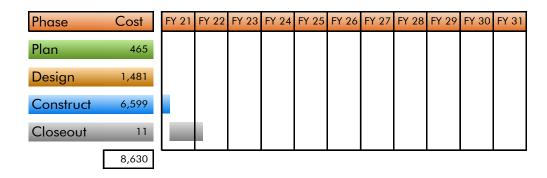
- Ensure plant operational reliability.
- Improve ability to maintain RWTP.
- Allow for better isolation of the treated water control valves for future work.
- Achieve greater accuracy in measuring treated water deliveries.
- Restore existing landscaping after drought.

# PROJECT LOCATION



★ Project Location

July 2009 to September 2021



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures									
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future			
93294056-RWTP Treated Water Valves Upgrade	8,331	288	11	0	0	0	0	0	8,630		
with inflation	8,331	288	11	0	0	0	0	0	8,630		

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY20	FY21		FY22	FY23	FY24	FY25	FY26	Future	
93294056-RWTP Treated Water Valves Upgrade	8,624	0	5	6	0	0	0	0	0	8,630

Adjusted Budget includes adopted budget plus approved budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	8,630
Other Funding Source	0
Total	8,630

# **OPERATING COST IMPACTS**

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operations.

**USEFUL LIFE:** 40 Years Small Capital

**Project** Improvements, Water

**Treatment** 

**Program** Water Supply - Treatment

Project No. 93764004 Contact **Greg Williams** 

gwilliams@valleywater.org



Sludge pond sediment removal at Santa Teresa Water Treatment **Plant** 

#### PROJECT DESCRIPTION

This project provides resources for small capital improvements that replace or extend the life of an asset. This project implements a systematic approach of equipment replacement and renewal at the three water treatment plants and laboratory by designing and constructing improvements identified as part of Valley Water's 10-year asset management program. Typical activities of this project include pump, motor, instrumentation and valve replacement; chemical tank repairs; and large-scale renewal and replacement activities like clarifier mechanism overhaul and replacement. Planned projects to complete for Santa Teresa Water Treatment Plant (STWTP), Penitencia Water Treatment Plan (PWTP), Rinconada Water Treatment Plant (RWTP), West Pipeline, and Silicon Valley Advanced Water Purification Center include:

- Provide engineering, supplies, and services support for the Sulfuric Acid Water Quality project.
- Purchase Laboratory Information Management System.
- Complete Small Capital Projects at STWTP, RWTP, PWTP and Campbell Well Field.

### PROJECT LOCATION



Project Location

This project is part of a regularly scheduled 10-year maintenance and asset management program.

Traditional planning, design, and construction phases do not apply.

Phase	Cost	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31
Plan	n/a											
Design	n/a											
Construct	n/a											
Closeout	n/a											
	n/a											

# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures							
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future	
93764004-Small Capital Improvements, Water Treatment	n/a	10,285	7,503	1,296	4,716	2,658	2,704	16,356	45,518
with inflation	n/a	10,285	7,503	1,415	5,382	3,170	3,370	23,151	54,275

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	t Planned Funding Requests						Total
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
93764004-Small Capital Improvements, Water Treatment	n/a	10,285	0	7,503	1,415	5,382	3,170	3,370	23,151	54,275

Adjusted Budget includes adopted budget plus approved budget adjustments. Small Capital Improvement projects do not carry forward unspent funds from one fiscal year to the next. Excess funds are returned to fund reserves at the close of each fiscal year and new funding is provided in the next fiscal

# **FUNDING SOURCES**

(in thousands \$)

<u> </u>	Total	54,275
Other Funding Source		0
SCVWD Water Utility Enterprise Fund		54,275

### **OPERATING COST IMPACTS**

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

**USEFUL LIFE:** Not Available

STWTP Filter Media Project Replacement

Water Supply - Treatment **Program** 

Project No. 93284013 Contact Heath McMahon

hmcmahon@valleywater.org



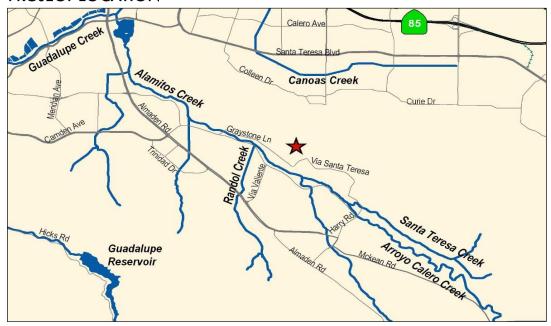
Santa Teresa Water Treatment Plant Filter Media Replacement

### PROJECT DESCRIPTION

This project plans, designs and constructs improvements to the Santa Teresa Water Treatment Plant (STWTP) filter basins to ensure that STWTP maintains its operational capacity and continues to effectively serve customers, retailers, and the public with safe and high-quality drinking water. This project will accomplish the following objectives:

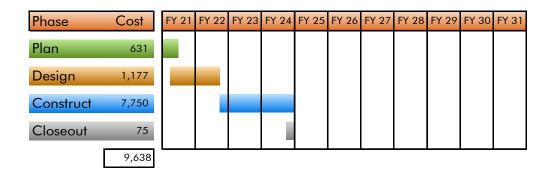
- Extend the service life of STWTP filter system.
- Replace the filter media in all twelve filters with sand and granular activated carbon.
- Replace the filter's damaged or deteriorated collection nozzles.

# PROJECT LOCATION



Project Location

June 2019 to June 2024



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures							
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future	
93284013-STWTP Filter Media Replacement	23	624	2,813	4,611	1,567	0	0	0	9,638
with inflation	23	624	2,813	4,912	1,728	0	0	0	10,100

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	nt Planned Funding Requests						Total
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
93284013-STWTP Filter Media Replacement	203	445	1	2,812	4,912	1,728	0	0	0	10,100

Adjusted Budget includes adopted budget plus approved budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	10,100
Other Funding Sources	0
Total	10,100

### **OPERATING COST IMPACTS**

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

**USEFUL LIFE:** 10-15 Years

Water Treatment Plant Project **Electrical Improvement** 

**Program** Water Supply - Treatment

Project No. 93084004 Contact Heath McMahon

hmcmahon@valleywater.org

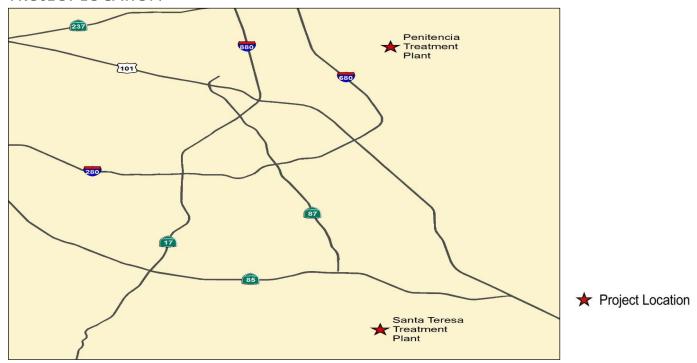


Motor control center switchboard

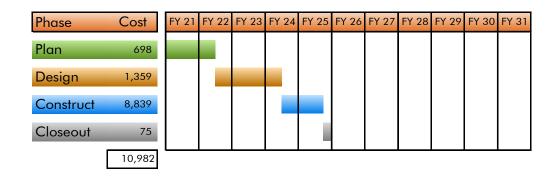
# PROJECT DESCRIPTION

This project plans, designs, and constructs improvements to ensure the safety, operational reliability and maintainability of electrical systems at Penitencia Water Treatment Plant (PWTP) and Santa Teresa Water Treatment Plant (STWTP). The electrical systems will be upgraded to accomplish the following objectives:

- Extend the service life of PWTP's and STWTP's electrical distribution systems
- Improve reliability and reduce maintenance at PWTP and STWTP



March 2020 to April 2025



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures							
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future	
93084004-Water Treatment Plant Electrical Improvement	34	615	879	2,323	5,328	1,803	0	0	10,982
with inflation	34	615	879	2,488	5,851	2,049	0	0	11,915

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	t Planned Funding Requests						Total
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
93084004-Water Treatment Plant Electrical Improvement	203	446	0	879	2,488	5,851	2,049	0	0	11,915

Adjusted Budget includes adopted budget plus approved budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	11,915
Other Funding Sources	0
Total	11,915

# **OPERATING COST IMPACTS**

Operating costs will be determined at the conclusion of the design phase.

**USEFUL LIFE**: 30+ Years

**WTP** Implementation Project

**Project** 

**Program** Water Supply - Treatment

Project No. 93044001

Contact Bhavani Yerrapotu

byerrapotu@valleywater.org

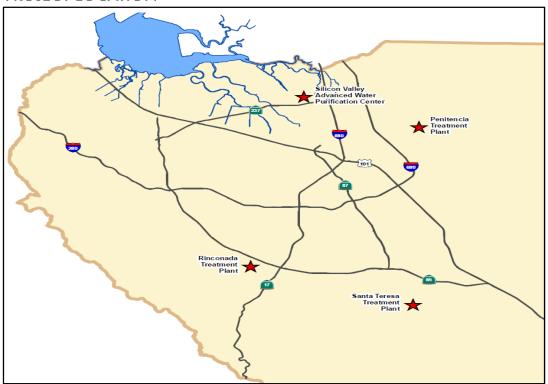


This project will implement improvements in all four water treatment facilities operated by Valley Water.

# PROJECT DESCRIPTION

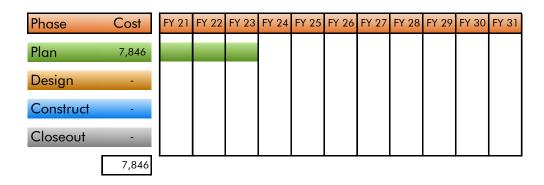
This project will develop a comprehensive 30-year implementation plan to determine the projects needed to repair, replace and/or upgrade Valley Water's water treatment plant infrastructure, address the increasingly stringent water quality regulations, and integrate with the recently completed Water Supply Master Plan. The implementation project will conclude with a programmatic environmental impact report. Facilities will include the Rinconada, Santa Teresa, Penitencia Water Treatment Plants and the Advanced Water Purification Center.

# PROJECT LOCATION



★ Project Location

July 2020 to June 2023



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures							
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future	
93044001-WTP Implementation Project	0	1,394	3,276	3,176	0	0	0	0	7,846
with inflation	0	1,394	3,276	3,468	0	0	0	0	8,138

Actuals include project expenditures, and encumbrances.

### **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent Planned Funding Requests							Total
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
93044001-WTP Implementation Project	0	1,394	0	3,276	3,468	0	0	0	0	8,138

Adjusted Budget includes adopted budget plus approved budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	8,138
Other Funding Sources	0
Total	8,138

# **OPERATING COST IMPACTS**

This project is not anticipated to increase or decrease annual operating costs, as the project is a planning effort that will be used to identify future repair and upgrade projects to Water Treatment Plants. Projects identified through this implementation project will have their own operating cost impacts identified as they come online.

**USEFUL LIFE:** Not Available

**Expedited Purified Water Project** 

**Program** 

**Program** Water Supply – Recycled Water

Project No. 91304001s Contact Vincent Gin

vgin@valleywater.org



Reverse osmosis membranes used for water purification

# PROJECT DESCRIPTION

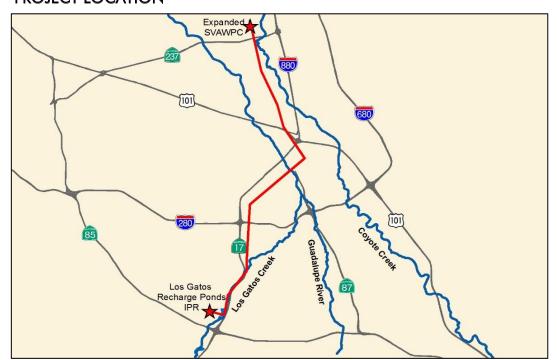
This project plans, designs, and constructs new infrastructure, proposed in Valley Water's 2012 Water Supply Master Plan, to accomplish the following objectives:

- Expand Valley Water's long-term water supply portfolio.
- Ensure a drought-proof and reliable water supply for Silicon Valley.

Project elements may include, but are not limited to:

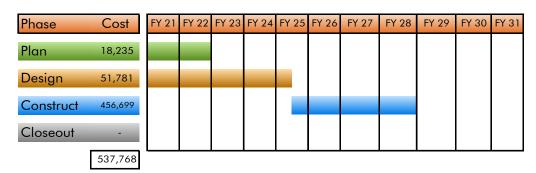
- Expansion of the Silicon Valley Advanced Water Purification Center to produce up to an additional 24 million gallons per day of advanced purified water.
- Installation of pipelines to convey advanced purified water to Valley Water's existing groundwater recharge ponds for indirect potable reuse, or to Valley Water's conventional surface water treatment plants for use as raw water augmentation (direct potable reuse).
- Installation of purified water injection wells at strategic locations to improve groundwater basin management.

# PROJECT LOCATION



★ Project Location

April 2015 to June 2028



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures							
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future	
91304001 - Indirect Potable Water Reuse Projects	21,009	3,800	2,926	26,694	26,624	156,017	152,767	147,417	537,254
with inflation	21,009	3,800	2,926	29,151	30,382	176,239	177,647	176,127	617,282
91284009 - Silicon Valley Advanced Water Purification Center Expansion	479	0	0	0	0	0	0	0	479
with inflation	479	0	0	0	0	0	0	0	479
91384001 - Purified Water Pipelines	35	0	0	0	0	0	0	0	35
with inflation	35	0	0	0	0	0	0	0	35
TOTAL	21,523	3,800	2,926	26,694	26,624	156,017	152,767	147,417	537,768
with inflation	21,523	3,800	2,926	29,151	30,382	176,239	177,647	176,127	617,796

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
91304001 - Indirect Potable Water Reuse Projects	25,183	1,412	1,786	1,140	29,151	30,382	176,239	177,647	176,127	617,282
91284009 - Silicon Valley Advanced Water Purification Center Expansion	479	0	0	0	0	0	0	0	0	479
91384001 - Purified Water Pipelines	35	0	0	0	0	0	0	0	0	35
TOTAL	25,697	1,412	1,786	1,140	29,151	30,382	176,239	177,647	176,127	617,796

Adjusted Budget includes adopted budget plus a planned budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	617,796
Other Funding Sources	0
Total	617,796

# **OPERATING COST IMPACTS**

Operating cost impacts are anticipated and will be determined during the planning phase.

**USEFUL LIFE:** Not Available

Land Rights - South **County Recycled Water Project** 

**Pipeline** 

**Program** Water Supply – Recycled Water

Project No. 91094001

Contact Heath McMahon

hmcmahon@valleywater.org

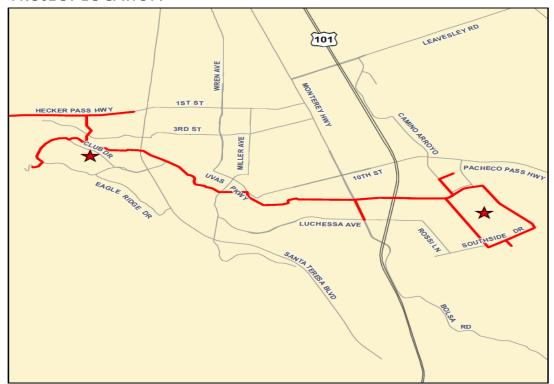


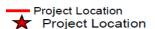
Restricted land access puts recycled water delivery at risk.

# PROJECT DESCRIPTION

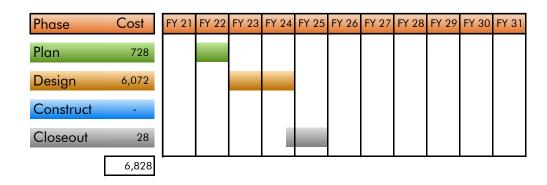
Valley Water is contractually required to maintain and operate the recycled water pipeline in South County as a part of an agreement with the South County Regional Wastewater Authority (SCRWA). It has been determined that there are insufficient and expired land rights to Valley Water's recycled water pipeline in segments near the Eagle Ridge Golf Course and along Hecker Pass road, which places Valley Water in a precarious legal position. In the event of a pipe failure, Valley Water's rights to legally operate and maintain the recycled water conveyance system may be challenged; thus, our commitment to deliver recycled water to its South County customers is at risk.

Valley Water's ongoing implementation of the SCRWA Recycled Water Master Plan is impetus to affirm the pipeline easements and Valley Water access rights. Delaying resolution of this outstanding issue may cause difficulties in maintaining the pipelines, and will negatively impact our long-term commitment to increase recycled water use in South County.





July 2020 to June 2025



# **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures							
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future	
91094001-Land Rights - South County Recycled Water Pipeline	0	0	548	3,120	3,160	0	0	0	6,828
with inflation	0	0	548	3,407	3,606	0	0	0	7,561

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	t Planned Funding Requests						Total
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
91094001-Land Rights - South County Recycled Water Pipeline	0	203	203	345	3,407	3,606	0	0	0	7,561

Adjusted Budget includes adopted budget plus approved budget adjustments.

# **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	7,561
Other Funding Sources	0
Total	7,561

# **OPERATING COST IMPACTS**

The completion of this project is not anticipated to increase or decrease annual operating costs, as the project does not significantly alter the existing facilities or modes of operation.

**USEFUL LIFE:** All land rights obtained will be held in perpetuity.

South County Recycled **Project** 

**Water Pipeline** 

Water Supply – Recycled Water Program

Project No. 91094007s

Contact Heath McMahon

hmcmahon@valleywater.org



Purple recycled water pipe waiting to be laid during construction of the Immediate Term project

#### PROJECT DESCRIPTION

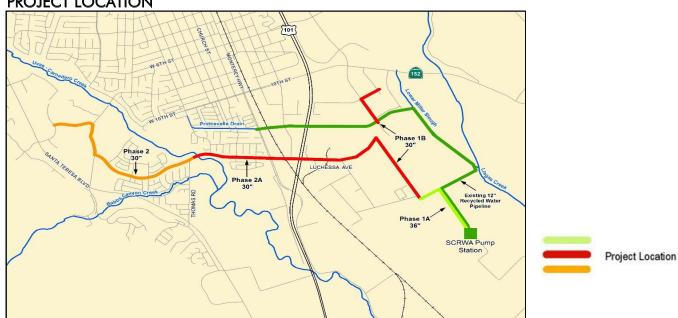
This project plans, designs, and constructs water recycling systems based on the South County Recycled Water Master Plan accepted in December 2004 to improve system redundancy, reliability, and capacity. The current Master Plan report presents a 20-year capital program for expanding water recycling in South County in three phases: Immediate Term, Short Term, and Long Term:

#### Completed:

- 91094007 Recycled Water South County Masterplan (Immediate Term) which included design and construction of recycled water storage, pumping, and distribution facilities for agricultural use near the South County Regional Wastewater Authority (SCRWA) treatment plant.
- 91094008 Recycled Water South County Masterplan (Short Term 1A), installation of approximately 3,000 feet of 30inch and 36-inch pipeline.

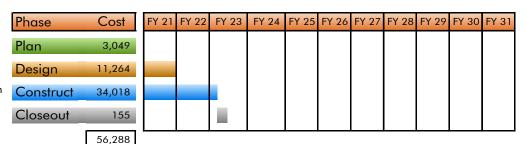
### Currently Underway:

- 91094009 South County Recycled Water Pipeline (Short Term) Phase 1B will construct an additional 18,500 linear feet
- 91094010 South County Recycled Water Pipeline (Short Term) Phase 2 will be completed through cost-sharing opportunities with the City of Gilroy and land developers to construct approximately 3,900 linear feet of 30-inch diameter pipe.
- 91094010 South County Recycled Water Pipeline (Long Term) Phase 1 to be completed through cost-sharing opportunities with the land developers through coordination by the City of Gilroy to construct approximately 9,200 linear feet of 24-inch diameter pipe.



July 2009 to December 2022

The schedule chart shows Short-Term Phase 1B and Phase 2 projects only. The Immediate-Term and Short-Term Phase 1A projects are complete.



#### **EXPENDITURE SCHEDULE**

(in thousands \$)

	Actuals Thru	Planned Expenditures							
Project	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Future	ı
91094007-Recycled Water South County Masterplan - Immediate Term	3,257	0	0	0	0	0	0	0	3,257
with inflation	3,257	0	0	0	0	0	0	0	3,257
91094008-Recycled Water South County Masterplan - Short Term 1A	5,391	0	0	0	0	0	0	0	5,391
with inflation	5,391	0	0	0	0	0	0	0	5,391
91094009-South County Recycled Water Pipeline - Short Term 1B	10,215	9,550	15,377	4,670	0	0	0	0	39,812
with inflation	10,215	9,765	15,377	4,902	0	0	0	0	40,259
91094010-South County Recycled Water Pipeline - Short Term 2	7,481	337	10	0	0	0	0	0	7,828
with inflation	7,481	337	10	0	0	0	0	0	7,828
TOTAL	26,344	9,887	15,387	4,670	0	0	0	0	56,288
with inflation	26,344	10,102	15,387	4,902	0	0	0	0	56,735

Actuals include project expenditures, and encumbrances.

# **FUNDING SCHEDULE**

(in thousands \$)

	Budget Thru	Adj. Budget	Est. Unspent	Planned Funding Requests						Total
Project	FY20	FY	21	FY22	FY23	FY24	FY25	FY26	Future	
91094007-Recycled Water South County Masterplan - Immediate Term	3,257	0	0	0	0	0	0	0	0	3,257
91094008-Recycled Water South County Masterplan - Short Term 1A	5,391	0	0	0	0	0	0	0	0	5,391
91094009-South County Recycled Water Pipeline - Short Term 1B	19,801	248	69	15,308	4,902	0	0	0	0	40,259
91094010-South County Recycled Water Pipeline - Short Term 2	8,108	0	290	0	0	0	0	0	0	8,108
TOTAL	36,557	248	359	15,308	4,902	0	0	0	0	57,015

Adjusted Budget includes adopted budget plus approved budget adjustments. Funding exceeds planned expenditures by approximately \$280,000. Excess funding will be returned to reserves upon completion of the project.

### **FUNDING SOURCES**

(in thousands \$)

SCVWD Water Utility Enterprise Fund	50,909
South County Regional Wastewater Authority	811
United States Bureau of Reclamation (USBR) ARRA	1,295
United States Bureau of Reclamation (USBR) Title 16	4,000
Total	57,015

#### **OPERATING COST IMPACTS**

Estimated Valley Water share of the operating and maintenance costs are \$8,000 per year for the Immediate-Term phase, beginning in FY07 and an additional \$25,000 for the Short-Term Phase 1, beginning in FY19. Increases for Immediate Term are primarily labor costs for operating the new 3mg reservoir and its pump station. Increases for Short Term are labor and materials to maintain the 42,000 feet of new pipeline, exercising valves and cathodic protection.

**USEFUL LIFE:** Pipelines – 50 Years, Pumps – 20 Years