

South Tahoe Public Utility District

Capital Improvement Program

Fiscal Year 2025 - Fiscal Year 2034





South Tahoe

Public Utility District

Paul Hughes, General Manager

Board Members

Nick Haven Shane Romsos David Peterson Kelly Sheehan Nick Exline

Memorandum

Date: April 12, 2024

To: Paul Hughes, General Manager

Board of Directors

From: Julie Ryan, Engineering Department Manager

Julie H. Ryan

Subject: 2024 Capital Improvement Program

The Engineering Department is pleased to present this Annual Plan Update for the 2024 Capital Improvement Program (CIP) for the South Tahoe Public Utility District (the District). This document, first compiled in 2021, is intended to be a desktop resource for the District's Staff and Board of Directors, which they can turn to over the coming year for basic information regarding the scope, cost and need of proposed projects. This plan will also be made available to District customers, consultants and contractors through the District website. This memorandum explains the purpose, scope and content of the CIP Annual Plan Update.

How was this document was developed?

In the fall of each year, the Engineering Department, together with Operations and Administration, meets extensively to discuss the state of the District's water and sewer facilities.

- We look back at projects that were identified in years past, but that have not yet been implemented. How are the facilities doing now? Are they still the top priority?
- We consider how conditions have changed in the past year. Are there facilities that have not been a great concern in the past, but that are now showing signs of excessive wear? Are there facilities that need to be upgraded in response to some outside factor (such as pending regulation or coordination with other agencies)?
- We discuss the scope and extent of the problems we are seeing. What problems can
 Operations handle themselves? What problems will require a more extensive project,
 with support from Engineering, outside contractors and consultants? This document
 focuses primarily on those the more extensive projects.
- We juggle competing priorities. We recognize that funds and staff resources are both limited, and that it's impossible to implement every project simultaneously. Which

projects are urgent? Which projects can safely be delayed 3 or 5 or 10 years or more without dire consequences for the long-term health of the system and our ability to deliver the quality service our customers expect? What is the right blend of projects to make sure that all of our systems (water sources, water distribution, sewer collection, wastewater treatment, recycled water) are getting the attention they need to function? What are the tools at our disposal (prior plans, predictive analytics, results of condition assessments) recommending for project order?

• We plan for future projects. While the CIP planning process substantially looks backwards, and focuses mostly on problems we already know about, Staff recognizes that it would be catastrophic for the District to stand by and wait for facilities to fail before taking action. To make the program more proactive, Staff also incorporates planning projects into the CIP. We discuss what information is needed to better understand the condition of the facilities. Do we need to collect more data about system operations? Do we need to perform condition assessments? Do we need to increase our routine maintenance or targeted replacement? Can we change our operations or invest in tools to extend the life of our assets?

The Engineering Department then compiles all this information into the CIP Plan. The CIP Plan (also referred to as the "Ten-Year Plan") is the District's tool for budgeting Engineering project expenditures over a ten-year planning horizon, and is the primary focus of this document. Once a project or program is sufficiently well defined to assign a cost, it is considered for inclusion in the CIP Plan. If Staff agrees on its need, it is included in the Ten-Year Plan. If the scope or cost of a project is ill-defined or the need is not considered immediate, a project is moved off of the Ten-Year Plan and onto the Unconstrained List. This document does not address projects on the Unconstrained List.

What does this document contain?

This document is divided into two parts (Sewer and Water) and each part has 4 pieces: the Ten-Year Plan, a graph of expenditures by facility type, a map of project locations, and the CIP Project Sheets.

• <u>Ten-Year Plan:</u> This large table represents the outcome of Staff's Annual CIP Planning process, described above. It provides the comprehensive list of projects recommended by Engineering and Operations for planning and implementation in the next 10 years, based on current system needs (as of December 2023). The table names the project, and shows the conceptual or design-level cost of the project and the fiscal year(s) (FY) recommended for design and construction. All CIP Project costs use future values for estimating purposes (current year estimates as a base cost, and assuming a 3% per year increase in project costs to the year of implementation).

Why are there projects with zero cost on the Ten-Year Plan? The Ten-Year Plan identifies future funding needs for the upcoming years FY25 to FY34. Any ongoing project that has current funding in FY24, but none in FY25 and beyond, is shown on the Ten-Year Plan with zero dollars set aside for future years. The funding to complete work on these project after July 1, 2024, will be rolled from FY24 into FY25, if necessary.

• <u>Graphs:</u> For each fund, Water and Sewer, a bar graph has been included, showing the annual anticipated expenditure by facility type. One goal of the program is to

encourage spending proportional to the value of the facilities by type, so that we can feel confident that all service areas are getting the attention that they need for ongoing reliability.

- <u>Maps:</u> Vicinity maps are provided showing the general location of projects on four types of field facilities: waterlines, sewerlines, sewer stations, and water stations (including wells, tanks, booster pump stations and pressure reducing valve stations). Due to their centralized nature, no maps have been developed for the projects at the Wastewater Treatment Plant or Diamond Valley Ranch. System-wide programs and administrative projects are also excluded from the maps.
- <u>CIP Project Sheets:</u> This section provides an information sheet for each project included on the Ten-Year Plan. The section begins with an index (showing project name and page number) and a key (providing a guide to interpreting the information provided on the CIP Project Sheets). The purpose of these CIP Project Sheets is to provide a summary of the project scope and some details on the need, impact, cost and funding opportunities.

When will this document be updated?

It is the intent of the Engineering Department to update and distribute this document each year in the Spring, at the conclusion of the Annual CIP planning process. The Department intends to make it available to the Staff and Board for reference during the Annual Budget process and during the coming year. If, however, the Annual CIP planning process does not result in significant changes, or if Staff Resources are strained, the Engineering Department may elect to skip an annual update for a year or more.

	Project Name	The project name matches the names used in the District's Ten-Year Plan, as well as the
	Project Name	Engineering Department's Needs-Based and Budget-Based Plans.
uo	Project Code	The project code is assigned by Accounting to track project labor and expenses. Projects
Key Project Information	Project code	that have not yet commenced will have a "0" in this field.
orn	Project Contact	The project contact is the Engineering Staff taking assigned to lead the project, as of the
<u>jr</u>	Troject contact	date of publication.
ect	Asset Owner/Dept	The asset owner is the District Department (typically an Operations Department) that is
roj	Asset Gwilely Dept	responsible for the ongoing operation and maintenance of the facility being improved by
e F		the Project.
~	Project Management Dept	The Project Management Department indicates which District Department is taking the lead
		to implement the project, ususally Engineering
	Project Status	One of three status options is assigned:
		• "In Progress" – the Project has been budgeted in a past year, but is incomplete. Funds will
		be rolled forward to complete the work.
		• "10-yr Plan" – the Project is listed in the Budget-Based and Needs-Based Ten-Year Plans.
its		• "Unconstrained" –the Project is either not urgent or is currently too poorly defined to
nef		develop even a conceptual level cost estimate. These projects are NOT included on the Ten-
/Be		Year Plans and have NOT been included in CIP Annual Plan Update.
Project Description/Benefits		
ript		
esc	Project Summary	The Project Summary describes the scope of the project for budgeting purposes, and
 		provides more detail on the need for the project.
oje	Need for Project	This section identifies one or more drivers for the project, selected from a menu of common
P.		drivers. These drivers have been developed from the criteria the District has adopted as its
		targeted Levels of Service for the systems.
	O&M Impacts	This section lists the expected impacts to Operations associated with implementing the
		Project. Workload may be decreased or increased in the future as a result of the Project.
	Reference Document	This section identifies how the project was conceived. If the Project was recommended in a
	Reference Document	formal document prepared for the District, it is identified, along with the document year
S		and any associated project number. If the Project was identified through the annual CIP
nce		planning process or other internal process, that is also indicated.
References	CIP Project Number	The CIP Project Number is the project number assigned by Finance on the District's current
Ref	en rrojectivamber	Ten-Year Plan. These id numbers are also used on the Engineering Department's Budget-
		Based and Needs-Based Plans. If the Project has not been budgeted, there will be no CIP
		Project Number assigned and this entry will be blank.
	Capital Improvement Expenditures	This area of the sheet presents the years and amounts that have been budgeted for the
		Project. Values have been taken directly from the Engineering Budget-Based Plan, which
		matches the District's Ten-Year Plan.
	Total Project Costs	This area of the sheet indicates the planning level cost estimates (and years) for the
		Planning, Design and Construction phases. If the Project is already partly completed or will
in g		be completed more than 10 years out, these values may exceed the amounts shown in the
pur		Capital Improvement Expenditures. Costs presented are future value (based on 3% per year
T _T		increase in project costs from a current year project cost estimate. If the Project is not
Project Funding		funded in the District's current Ten-Year Plan, it is assumed to be implemented in Year 11
Pro		and uses Year 11 future value.
	Funding Source	The Funding Source identifies secured and pending outside funding sources, if any; if no
		outside funding sources are expected for the Project, then this section will indicate "Capital"
		for funding of projects included in the Budget-Based Plan. If the Project is not funded on the
		Budget-Based Plan, then the Funding Source will be identified as "TBD".
	Duningt Longting and Division	This was after the short was idea as leavest the second se
Other nformation	Project Location and Photos	This area of the sheet provides relevant photographs, maps and other illustrations to help
Other	Community	describe the Project.
O Ifor	Comments	This area of the sheet provides supplemental information regarding the recommended
<u> </u>		implementation of the Project.

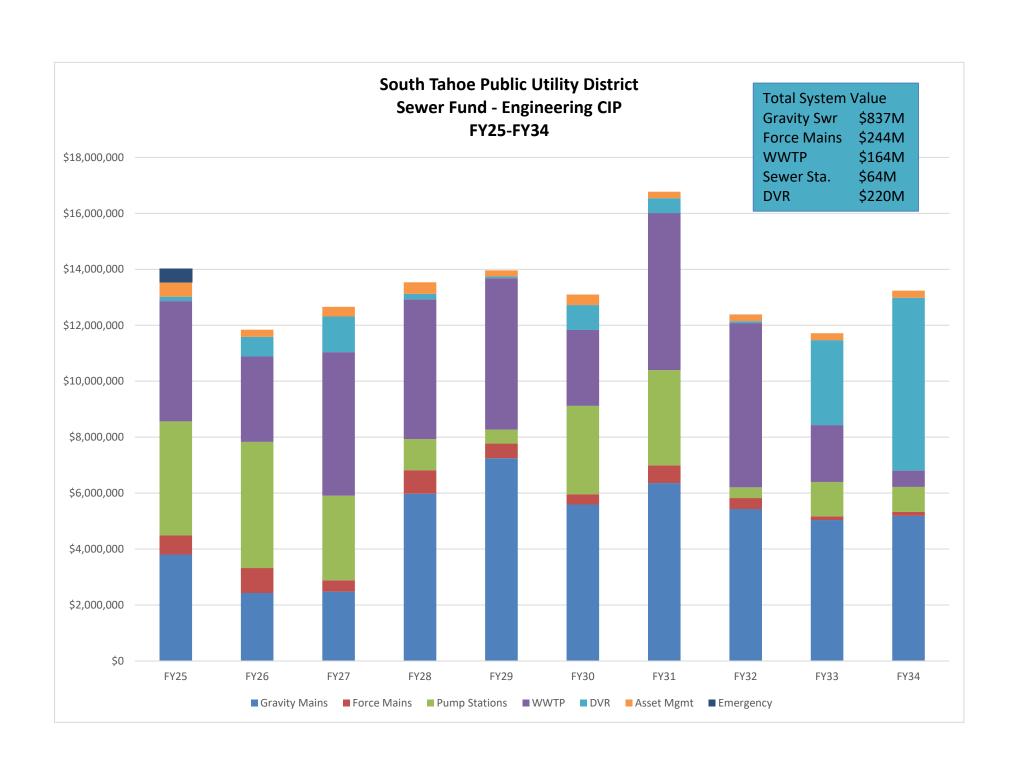
SEWER

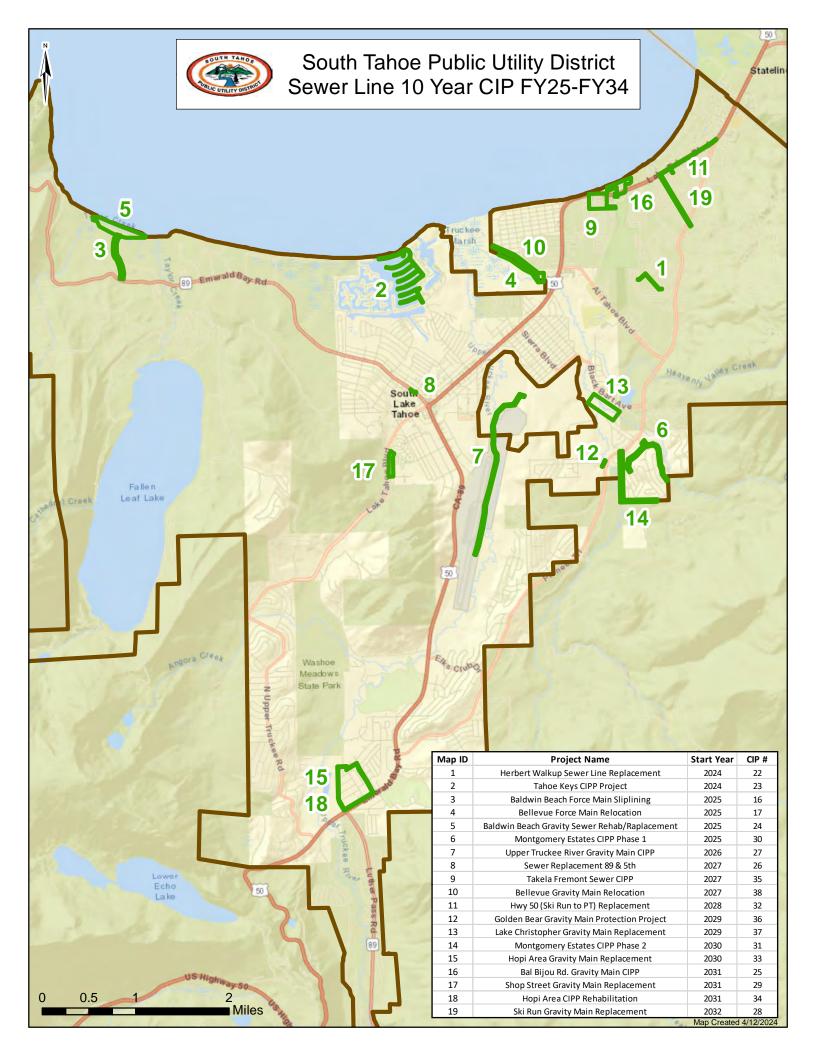
SE	WER ENGINEERING 10YR CIP	Calendar Year	Current											
		Planned for	Budget	Proposed I	Budget by Fisc	cal Year :								10-YR
#	PROJECT	Construction	FY24	25	26	27	28	29	30	31	32	33	34	TOTALS
1	WATER REUSE DIAMOND DITCH REHABILATION	26		103,000	533,000	1,098,000	-							1,734,000
2	WATER REUSE ROADS	ALL	54,000	56,000	169,000	174,000	61,000	63,000	65,000	67,000	69,000	71,000	73,000	868,000
3	DVR EQUIPMENT STORAGE (was HAY BARN)	TBD	358,680	·							·			0
4	WATER REUSE - DRESSLER DITCH EROSION CONTROL	24	397,000											0
5	DVR IRRIGATION IMPROVEMENTS	19	1,873											0
6	DVR DATA COLLECTION IMPROVEMENTS	25 to 27	52,000	54,000	56,000	57,000	59,000							226,000
7	HPR SW INTERCEPT PROJECT	29	·	·			134,000		226,000	465,000				825,000
8	DVR EMERGENCY PONDS / HPR BYPASS (DVRIIP PH2)	31							598,000			2,965,000	6,107,000	9,670,000
9	SEWER SYSTEM UNPLANNED REPAIRS	24	500,000	500,000										500,000
10	BACKFLOW COMBO'S	24	7,500											0
11	SEWER FORCE MAIN ASSET MANAGEMENT	28+						525,000	125,000	129,000	133,000	137,000	141,000	1,190,000
12	FLL FM SHOREZONE STABILIZATION	24	155,000											0
13	FM INSPECTION PORTS - BIJOU/JOHNSON	24 and 30 to 31	103,000						244,000	503,000	259,000			1,006,000
14	FORCE MAIN ARV REPLACEMENT PROJECT	25	146,000	290,000	200,000									490,000
15	FORCE MAIN BYPASS (TAHOE KEYS)	24	37,550											0
16	BALDWIN BEACH FORCE MAIN SLIPLINING	25		337,000	693,000									1,030,000
17	BELLEVUE FORCE MAIN RELOCATION	27		52,000		408,000	841,000							1,301,000
18	GRAVITY SEWER REHAB PROGRAM (CIPP 1300LF/YR)	N/A												0
19	GRAVITY SEWER REPLACEMENT PROGRAM (4000LF/YR)	31+	50,000							1,413,000	1,259,000	1,098,000	3,706,000	7,476,000
20	I&I REDUCTION PROGRAM	31+								1,353,000	1,394,000	1,436,000	1,479,000	5,662,000
21	TALLAC CREEK SEWER CROSSING	22				70)~								0
22	KEYS CIPP PROJECT	24	706,000	1,453,000			000							1,453,000
23	HERBERT WALKUP REPLACEMENT	24	620,000	1,277,000		J	(O)/nv							1,277,000
24	BALDWIN BEACH GRAVITY REHAB/REPLACEMENT (2200 FT)	25	52,000	504,000	1,037,000		49 0							1,541,000
25	BAL BIJOU ROAD GRAVITY MAIN CIPP	31	23,379						6	263,000	542,000			805,000
26	SEWER REPLACEMENT 89 AND 5TH	31						9		202,000	208,000			410,000
27	UPPER TRUCKEE RIVER GRAVITY MAIN CIPP	26	52,000		212,000	436,000			1200					648,000
28	SKI RUN BLVD GRAVITY MAIN REPLACEMENT	32							60,000		1,214,000	2,501,000		3,775,000
29	SHOP STREET GRAVITY MAIN REPLACEMENT	31					58,000			395,000	814,000			1,267,000
30	MONTGOMERY ESTATES EASEMENTS CIPP PH 1 (4800 LF)	25	52,000	307,000	631,000									938,000
31	MONTGOMERY ESTATES EASEMENTS CIPP PH 2 (5000LF)	30							396,000	816,000				1,212,000
32	HWY 50 / SKI RUN TO PIONEER TRAIL REPLACEMENT (4300 LF)	28	258,000				2,431,000	5,007,000						7,438,000
33	HOPI AREA GRAVITY MAIN REPLACEMENT	30						36,000	672,000	1,383,000				2,091,000
34	HOPI AREA CIPP REHABILITATION	31						36,000		533,000				569,000
35	TAKELA FREMONT CIPP REHABILITATION	27	16,000		33,000	275,000	566,000							874,000
36	GOLDEN BEAR GRAVITY MAIN PROTECTION PROJECT	29			80,000			131,000	270,000					481,000
37	LAKE CHRISTOPHER GRAVITY MAIN REPLACEMENT	29			266,000			2,036,000	4,193,000					6,495,000
38	BELLEVUE GRAVITY MAIN RELOCATION	27		103,000		1,419,000	2,922,000							4,444,000
39	SEWER SYSTEM ACCESS IMPROVEMENTS	26	43,194	160,000	168,000	346,000								674,000
40	FIELD COMMUNICATION UPGRADES PHASE 2	23	92,015											0
41	FIELD COMMUNICATION UPGRADES PHASE 3	24	310,000											0
42	SEWER PUMP STATION MONITORING PROGRAM	ALL	172,000	194,000	200,000	206,000	212,000	218,000	225,000	232,000	239,000	246,000	253,000	2,225,000
43	TAHOE KEYS PUMP STATION REHABILITATION	22 to 24	1,945,873	100,000										100,000
44	UPPER TRUCKEE PUMP STATION REHABILITATION	23 to 25	3,387,280	849,000										849,000
45	BIJOU PUMP STATION REHABILITATION	24 to 26	515,000	1,732,000	3,568,000	1,838,000								7,138,000
46	JOHNSON PUMP STATION REHABILIATION	29				185,000		497,000	1,023,000					1,705,000
47	AL TAHOE PUMP STATION REHABILITATION	30					254,000		1,342,000	2,764,000				4,360,000
48	LPPS TANK COATING AND CATHODIC PROTECTION	21 to 24	1,653,631											0
49	LPPS FUEL TANK	26	105,358											0
50	LPPS PUMP EFFICIENCY MONITORING	23	13,333											0
51	LPPS SPARE ELECTRICAL EQUIPMENT	29							478,000					478,000
52	WET WELL IMPROVEMENTS, COATING, REPAIRS	26		103,000	239,000	492,000								834,000

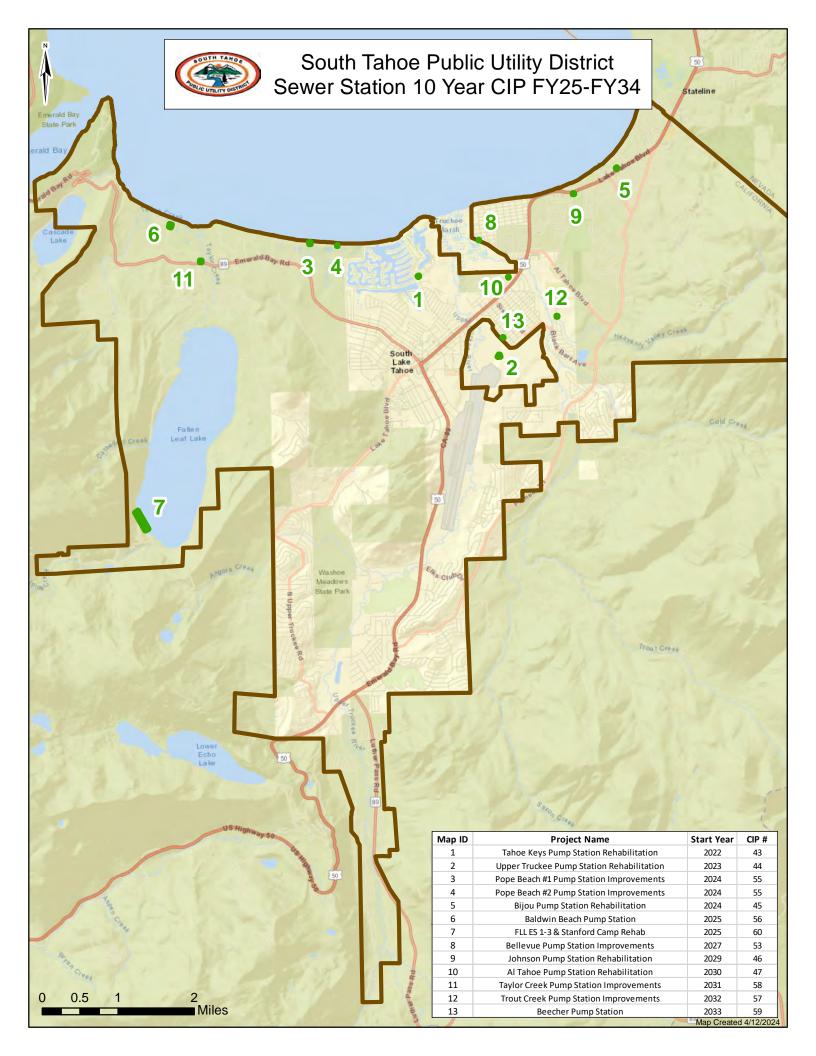
24.25-CIP-Final-041224-CIPSheets [SEWER] 4/17/2024

SE	WER ENGINEERING 10YR CIP	Calendar Year Planned for	Current Budget	Pronosed I	Budget by Fis	cal Year ·								10-YR
#	PROJECT	Construction	FY24	25	26	27	28	29	30	31	32	33	34	TOTALS
53	BELLEVUE PUMP STATION IMPROVEMENTS	27		239,000		357,000	735,000							1,331,000
54	POPE BEACH #1 PUMP STATION IMPROVEMENTS	28	54.000			001,000	61,000		127,000	261,000				449,000
55	POPE BEACH #2 PUMP STATION IMPROVEMENTS	28	54,000				61,000		120,000	246,000				427,000
56	BALDWIN BEACH PUMP STATION IMPROVEMENTS	25	57,000	306,000	630,000		0.,000		:==;===	2.0,000				936,000
57	TROUT CREEK PUMP STATION IMPROVEMENTS	32	0.,000	333,333	200,000					70,000		294,000	606,000	970,000
58	TAYLOR CREEK PUMP STATION IMPROVEMENTS	31							68,000	. 0,000	384.000	791,000	000,000	1,243,000
59	BEECHER PUMP STATION	33							33,333	64,000	33 .,333	140,000	288,000	492,000
60	FLL ES 1-3 & STANFORD CAMP REHAB	23-26	54,000	750,000	74,000	151,000		(D)				110,000		975,000
61	WWTP MASTER PLAN	NA NA	159,000	100,000	1 1,000	101,000								0
62	EMERGENCY PS REHAB	24	100,000	155,000					9/0/					155,000
63	SECONDARY CLARIFIER 1 REHAB	24	382,673	1,431,000										1,431,000
64	SECONDARY CLARIFIER 2 REHAB	23	1,349,089	1,101,000						1375				0
65	SECONDARY CLARIFIER 3 REHAB	21-22	15,000											0
66	PLANT PAVING (CENTER ROAD)	28	. 5,555				131,000	269,000			<u> </u>			400,000
67	LOWER, FOUNTAIN SHOPS IMPROVEMENTS	28-30				359,000	101,000	200,000	894,000	1,426,000	1,469,000	757,000		4,905,000
68	BLOWER, CHLORINE, EMPS SHINGLE REMOVAL	28				000,000			191,000	196,000	1,100,000	101,000		387,000
69	WWTP BALLAST PONDS	24 and 26	124,000	164,000	615,000	1,267,000			101,000	100,000				2,046,000
70	BLOWER SYSTEM IMPROVEMENTS	25-26	1,205,985	1,083,000	1,116,000	1,149,000								3,348,000
71	AIR HEADER REPLACEMENT	30	1,200,300	1,000,000	1,110,000	1,143,000		246,000	1,628,000	3,352,000				5,226,000
72	FILTERS 1,2 REHAB	28						1,230,000	1,020,000	3,332,000				1,230,000
73	MIXED LIQUOR SPLITTER BOX; GATES, WEIR, COATINGS	27	73,000			137,000	281,000	1,230,000						418,000
74	EMERGENCY PS IMPROVEMENTS, CONC REHAB	27	52,000			66,000	136,000							202,000
75	AB SPLITTER BOX	27	52,000			55,000	114,000							169,000
76	PRIMARY EFFLUENT JUNCTION BOX	27	52,000			33,000	68,000							101,000
77	RAS BUILDING REHABILITATION (3)	27-28	164,000	470,000		1,308,000	4,041,000	2,775,000						8,594,000
78	PLANT ELECTRICAL UPGRADES	25 to 26 and 33	110,000	316,000	447,000	335,000	4,041,000	2,775,000				251,000		1,349,000
79	FILTERS 3,4 REHAB	24	883,000	310,000	447,000	333,000						251,000		1,043,000
80	BIO BUILDING ODOR CONTROL & HVAC UPGRADES	25	6,000	224,000	460,000									684,000
81	PLANT PAVING (SOUTH ROAD)	26	0,000	224,000	151,000	310,000								461,000
82	PLANT PAVING (GOOTH ROAD)	31			131,000	310,000				143,000	294,000			437,000
83	ERB LINER AND VALVE REPLACEMENT	31								497,000	1,024,000			1,521,000
84	WWTP FIRE ALARM SYSTEM STANDARDIZATION	25		88,000	181,000					437,000	1,024,000			269,000
85	BONEYARD IMPROVEMENTS PROJECT	28		00,000	101,000		226,000	232,000						458,000
	FILTER BUILDING STRUCTURAL REPAIRS	33					220,000	232,000				218,000	448,000	666,000
87	CHLORINE BUILDING ROOF REPLACEMENT	33										66,000	135,000	201,000
88	TANKS ASSET MANAGEMENT PROGRAM	ALL				82,000	144,000		152,000			00,000	133,000	378,000
89	WWTP ELECTRICAL SUBMETERING	24	38,000	78,000	81,000	82,000	144,000		132,000					159,000
90	OPS AND SERVER ROOM HVAC UPGRADES	24	103,000	70,000	81,000									139,000
91	SCADA HISTORIAN UPGRADES	22-24	205,695	103,000										103,000
92	SRT CONTROLLER FOR SECONDARY SYSTEM	TBD	73,000	103,000										103,000
93	ENGINEERING OFFICES UPGRADES	22-24	234,824						 		 			0
93	WWTP SOLAR	32	234,024						 		3,083,000			3,083,000
	CENTRIFUGE #1 REPLACEMENT					57,000		660,000	 		3,003,000			
95	CENTRIFUGE #1 REPLACEMENT CENTRIFUGE #2 REPLACEMENT	29						660,000	 		 	742,000		717,000 799,000
96		33		100.000		57,000						742,000		
97	MAINTENANCE BAY EXPANSION	24		189,000										189,000
98	REPLACE NUKE GAUGE	N/A		10,000					 		 			10,000
99	CMMS IMPLEMENTATION	N/A		258,000					ļ		ļ			258,000

SEWER TOTALS: 14,038,000 11,840,000 12,657,000 13,536,000 13,961,000 13,097,000 16,773,000 12,385,000 11,713,000 13,236,000 133,236,000 SEWER AND WATER TOTALS: 24,180,000 23,410,000 25,227,000 27,609,000 28,135,000 26,588,000 31,019,000 27,666,000 23,579,000 28,440,000 265,853,000









Pg. No. Project Name

- 1 WATER REUSE DIAMOND DITCH REHABILATION
- 2 WATER REUSE ROADS
- 3 DVR EQUIPMENT STORAGE (was HAY BARN)
- 4 WATER REUSE DRESSLER DITCH EROSION CONTROL
- 5 DVR IRRIGATION IMPROVEMENTS COMPLETED
- 6 DVR DATA COLLECTION IMPROVEMENTS
- 7 HPR SW INTERCEPT PROJECT
- 8 DVR EMERGENCY PONDS / HPR BYPASS (DVRIIP PH2)
- 9 SEWER SYSTEM UNPLANNED REPAIRS
- 10 BACKFLOW COMBO'S DELETED
- 11 SEWER FORCE MAIN ASSET MANAGEMENT
- 12 FLL FM SHOREZONE STABILIZATION
- 13 FM INSPECTION PORTS BIJOU/JOHNSON
- 14 FORCE MAIN ARV REPLACEMENT PROJECT
- 15 FORCE MAIN BYPASS (TAHOE KEYS)
- 16 BALDWIN BEACH FORCE MAIN SLIPLINING
- 17 BELLEVUE FORCE MAIN RELOCATION
- 18 GRAVITY SEWER REHAB PROGRAM (CIPP 1300LF/YR)
- 19 GRAVITY SEWER REPLACEMENT PROGRAM (4000LF/YR)
- 20 I&I REDUCTION PROGRAM
- 21 TALLAC CREEK SEWER CROSSING COMPLETED
- 22 KEYS CIPP PROJECT
- 23 HERBERT WALKUP REPLACEMENT
- 24 BALDWIN BEACH GRAVITY REHAB/REPLACEMENT (2200 FT)
- 25 BAL BIJOU ROAD GRAVITY MAIN CIPP
- 26 SEWER REPLACEMENT 89 AND 5TH
- 27 UPPER TRUCKEE RIVER GRAVITY MAIN CIPP
- 28 SKI RUN BLVD GRAVITY MAIN REPLACEMENT
- 29 SHOP STREET GRAVITY MAIN REPLACEMENT
- 30 MONTGOMERY ESTATES EASEMENTS CIPP PH 1 (4800 LF)
- 31 MONTGOMERY ESTATES EASEMENTS CIPP PH 2 (5000LF)
- 32 HWY 50 / SKI RUN TO PIONEER TRAIL REPLACEMENT (4300 LF)
- 33 HOPI AREA GRAVITY MAIN REPLACEMENT
- 34 HOPI AREA CIPP REHABILITATION
- 35 TAKELA FREMONT CIPP REHABILITATION



Pg. No. Project Name

- 36 GOLDEN BEAR GRAVITY MAIN PROTECTION PROJECT
- 37 LAKE CHRISTOPHER GRAVITY MAIN REPLACEMENT
- 38 BELLEVUE GRAVITY MAIN RELOCATION
- 39 SEWER SYSTEM ACCESS IMPROVEMENTS
- 40 FIELD COMMUNICATION UPGRADES PHASE 2
- 41 FIELD COMMUNICATION UPGRADES PHASE 3
- 42 SEWER PUMP STATION MONITORING PROGRAM
- 43 TAHOE KEYS PUMP STATION REHABILITATION
- 44 UPPER TRUCKEE PUMP STATION REHABILITATION
- 45 BIJOU PUMP STATION REHABILITATION
- 46 JOHNSON PUMP STATION REHABILIATION
- 47 AL TAHOE PUMP STATION REHABILITATION
- 48 LPPS TANK COATING AND CATHODIC PROTECTION
- 49 LPPS FUEL TANK
- 50 LPPS PUMP EFFICIENCY MONITORING
- 51 LPPS SPARE ELECTRICAL EQUIPMENT
- 52 WET WELL IMPROVEMENTS, COATING, REPAIRS
- 53 BELLEVUE PUMP STATION IMPROVEMENTS
- 54 POPE BEACH #1 PUMP STATION IMPROVEMENTS
- 55 POPE BEACH #2 PUMP STATION IMPROVEMENTS
- 56 BALDWIN BEACH PUMP STATION IMPROVEMENTS
- 57 TROUT CREEK PUMP STATION IMPROVEMENTS
- 58 TAYLOR CREEK PUMP STATION IMPROVEMENTS
- 59 BEECHER PUMP STATION
- 60 FLL ES 1-3 & STANFORD CAMP REHAB
- 61 WWTP MASTER PLAN
- 62 EMERGENCY PS REHAB
- 63 SECONDARY CLARIFIER 1 REHAB
- 64 SECONDARY CLARIFIER 2 REHAB
- 65 SECONDARY CLARIFIER 3 REHAB COMPLETED
- 66 PLANT PAVING (CENTER ROAD)
- 67 LOWER, FOUNTAIN SHOPS IMPROVEMENTS
- 68 BLOWER, CHLORINE, EMPS SHINGLE REMOVAL
- 69 WWTP BALLAST PONDS
- 70 BLOWER SYSTEM IMPROVEMENTS
- 71 AIR HEADER REPLACEMENT



_			
Pg.	No.	Proiect	Name

- 72 FILTERS 1,2 REHAB
- 73 MIXED LIQUOR SPLITTER BOX; GATES, WEIR, COATINGS
- 74 EMERGENCY PS IMPROVEMENTS, CONC REHAB
- 75 AB SPLITTER BOX
- 76 PRIMARY EFFLUENT JUNCTION BOX
- 77 RAS BUILDING REHABILITATION (3)
- 78 PLANT ELECTRICAL UPGRADES
- 79 FILTERS 3,4 REHAB
- 80 BIO BUILDING ODOR CONTROL & HVAC UPGRADES
- 81 PLANT PAVING (SOUTH ROAD)
- 82 PLANT PAVING (NORTH ROAD)
- 83 ERB LINER AND VALVE REPLACEMENT
- 84 WWTP FIRE ALARM SYSTEM STANDARDIZATION
- 85 BONEYARD IMPROVEMENTS PROJECT
- 86 FILTER BUILDING STRUCTURAL REPAIRS
- 87 CHLORINE BUILDING ROOF REPLACEMENT
- 88 TANKS ASSET MANAGEMENT PROGRAM
- 89 WWTP ELECTRICAL SUBMETERING
- 90 OPS AND SERVER ROOM HVAC UPGRADES
- 91 SCADA HISTORIAN UPGRADES
- 92 SRT CONTROLLER FOR SECONDARY SYSTEM POSTPONED
- 93 ENGINEERING OFFICES UPGRADES
- 94 WWTP SOLAR
- 95 CENTRIFUGE #1 REPLACEMENT
- 96 CENTRIFUGE #2 REPLACEMENT
- 97 MAINTENANCE BAY EXPANSION
- 98 REPLACE NUKE GAUGE
- 99 CMMS IMPLEMENTATION



Project Name: WATER REUSE DIAMOND DITCH REHABILATION

Project Code: DVR **Asset Owner/Dept: Project Contact: Trevor Coolidge Project Management Dept: Eng**

Project Description/ Benefits

10-yr Plan **Project Status:**

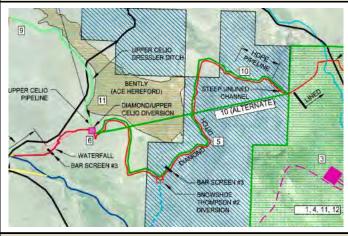
In the wake of the Tamarack Fire, the scope of this project, which was originally intended to be a targeted ditch lining project, has increased to become a piping project, targeting areas subject to mudflow. The budget alloted is a placeholder; the total length and unit cost for piping have not yet been established.

Need for Project										Operation and Maintenance Impacts					
Asset Life Extension										Reduc	ed Reactionar	y Maintenance	!		
Reliabi	ility/Red	dundan	су												
Other	Environ	mental	Benefi	t											
Emerg	ency Re	sponse													
Refere	nce Do	cument	;												
19-20	CIP Plar	nning										CIP No.	1		
Projec	t Fundiı	ng													
Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year		
FY24	25	26	27	28	29	30	31	32	33	34	Planning				

Design \$105,000 24 0.10 0.53 1.10 **Construction** |\$1,629,000 26

Total Capital Improvement Cost \$1,734,000

Funding Source: Capital **Project Location and Photos**





Comments



Project Name: WATER REUSE ROADS

Project Code:0Asset Owner/Dept:DVRProject Contact:Trevor CoolidgeProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project provides an annual capital budget for paving and drainage improvements on DVR roads, with technical support provided by Engineering upon request. Ongoing improvements will allow DVR Operations to address needs as they arise, improve District ability to respond to emergencies, and help keep areas of the ranch accessible year-round.

Need f	Need for Project										Operation and Maintenance Impacts				
Safety	afety										Improvements	5			
System	System Efficiency									Reduc	ed Reactionary	Maintenance	<u>!</u>		
Asset L	Asset Life Extension										se Planned Ma	intenance			
Emerge	Emergency Response														
Refere	nce Do	cument	;												
19-20 (CIP Plar	ning										CIP No.	2		
Project	t Fundiı	ng													
Capital	l Impro	vement	t Expen	ditures	(Millio	ns)						Total	Year		
FY24	25	26	27	28	29	30	31	32	33	34	Planning				
0.05	0.06	0.17	0.17	0.06	0.06	0.07	0.07	0.07	0.07	0.07	Design				
0.03	0.00	0.17	0.17	0.00	0.00	0.07	0.07	0.07	0.07	0.07	Construction	\$922,000	ALL		
								Tota	al Capit	al Impr	ovement Cost	\$922,000			

Funding Source: Capital Project Location and Photos





Project Name: DVR EQUIPMENT STORAGE (was HAY BARN)

Project Code:DVRHAYAsset Owner/Dept:DVRProject Contact:Trevor CoolidgeProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project was originally designed and bid as a pre-fab metal barn at the DVR Property to house the agricultural equipment and protect the harvested hay from the elements prior to sale. That project would have been partly enclosed (for the equipment), and partly open with a roof (for the hay), as shown, but bids came in much higher than anticipated. The project is being reconceved as equipment storage only, nearer to the shop facilities. This project, originally funded in 2021, has been rolled forward until it becomes a priority (as early as 2024).

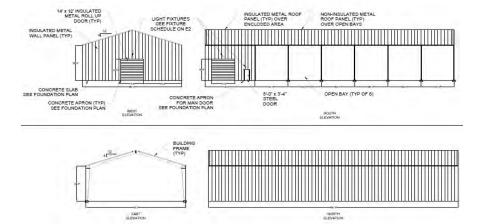
Need for Project	Opera	tion and iviain	tenance impacts
Asset Life Extension	Reduce	ed Reactionary	Maintenance
Reliability/Redundancy			
Other Environmental Benefit			
Reference Document			
19-20 CIP Planning			CIP No. 3
Project Funding			

Capital Improvement Expenditures (Millions) **Total** Year **Planning** FY24 25 26 27 28 29 30 31 32 33 34 Design 0.36 Construction |\$358,680 **TBD**

Total Capital Improvement Cost \$358,680

Funding Source: Capital

Project Location and Photos



Comments

3



Project Name: WATER REUSE - DRESSLER DITCH EROSION CONTROL

Project Code:0Asset Owner/Dept:DVRProject Contact:Trevor CoolidgeProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

In the wake of the Tamarack Fire, the slope above the Dressler Ditch has become unstable and subject to mudflow in heavy rain events. This project stabilizes the slope and/or pipes sections to minimize future impacts to the ditch.

Need f	for Proj	ect								Opera	Operation and Maintenance Impacts					
Emergency Response										Reduc	ed Reactionary	Maintenance	<u>;</u>			
Reliabi	ility/Red	dundan	су													
Other	Enviror	ımental	l Benefi	it												
Refere	nce Do	cumen	t													
19-20	CIP Plar	nning										CIP No.	4			
Projec	t Fundi	ng														
Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)						Total	Year			
FY24	25	26	27	28	29	30	31	32	33	34	Planning					
0.40											Design					
0.40											Construction	\$397,000	24			
								Tot	al Capi	tal Imp	rovement Cost	\$397,000				

Funding Source: FEMA
Project Location and Photos





Comments

The District is currently seeking FEMA funding to cover a portion of this effort, and this budget would be used as match to complete the job.



Project Name: DVR DATA COLLECTION IMPROVEMENTS

Project Code:0Asset Owner/Dept:DVRProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

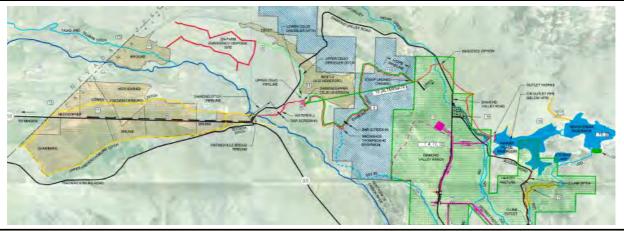
Project Status: 10-yr Plan

This project makes capital improvements to data collection systems at Diamond Valley Ranch, which may include (but are not limited to) development of a drone monitoring program, survey of key features to support development of GIS, procurement and installation of instruments for remote monitoring, development of data collection tools and organization of collected data.

Need f	Need for Project										Operation and Maintenance Impacts					
System	n Monit	oring/R	Remote	Contro	I					Reduc	ed Reactionary	Maintenance				
Refere	nce Do	cumen	t							-						
23-24	CIP Plar	nning										CIP No.	6			
Projec	t Fundi	ng														
Capita	l Impro	vemen	t Exper	ditures	(Millio	ons)						Total	Year			
FY24	25	26	27	28	29	30	31	32	33	34	Planning	\$52,000	24			
0.05	0.05	0.06	0.06	0.06					-		Design	¢222.000	25.27			
								Tota	al Capi	<u>l</u> tal Imp	Construction rovement Cost	\$223,000 \$275,000	25-27			

Funding Source: Capital

Project Location and Photos



Comments



Project Name: HPR SW INTERCEPT PROJECT

Project Code:0Asset Owner/Dept:DVRProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

During the winter storms of 2022-23, excessive surface water runoff made its way to Harvey Place Reservoir, causing rapid rise of reservoir levels and an emergency release of recycled water into Diamond Ditch before the regulatory release date of April 1. This project constructs an interceptor channel on the hillside above HPR to capture surface water runoff that currently takes up valuable storage in HPR and divert it to the freshwater Indian Creek Reservoir (ICR). This project, which was originally conceived as part of the Master Plan for Diamond Valley Ranch was resurrected as part of the 2024-25 budget process.

Need f	or Proj	ect								Opera	Operation and Maintenance Impacts					
Emergency Response									Increa	sed Planned M	aintenance					
Regula	Regulatory Mandate										on of Assets					
Refere	nce Do	cumen	t													
* Choc	se Best	: Optior	1									CIP No.	7			
Projec	t Fundi	ng														
Capita	l Impro	vemen	t Exper	ditures	(Millio	ons)						Total	Year			
FY24	25	26	27	28	29	30	31	32	33	34	Planning					
				0.12		0.22	0.47				Design	\$134,000	27			
				0.13		0.23	0.47				Construction	\$691,000	29			
	-							Tota	al Capi	tal Imp	rovement Cost	\$825,000	-			

Funding Source: Capital

Project Location and Photos



Comments



Project Name: DVR EMERGENCY PONDS / HPR BYPASS (DVRIIP PH2)

Project Code:0Asset Owner/Dept:DVRProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

During the winter storms of 2022-23, excessive surface water runoff and high effluent flows from the WWTP an emergency release of recycled water into Diamond Ditch before the regulatory release date of April 1. This water made its way to the On-Farm facilities (which is a permitted emergency storage facility under the District's waste discharge requirements) and the ranchers (which is not allowd prior to April 1). By constructing emergency ponds on the District's ranch property, and the accompanying bypass pipeline, recycled water can be diverted from Harvey Place Reservoir during high flow times, rather than discharge to Diamond Ditch. This project was originally conceived as part of the prior DVR Master Plan, and is identified in the District's Waste Discharge Requirements as an existing emergency storage facility. However, the project was dropped from the Capital Plan in 2018 due to budget restrictions and design was never initiated. The project concept has been resurrected as part of 2024-25 budget process.

Need for Project	Operation and Maintenance Impacts
Emergency Response	Increased Planned Maintenance
Regulatory Mandate	Addition of Assets

* Choose Best Option		CIP No. 8
Choose best Option		CIF INU. 6

Project Funding

Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
						0.60			2.97	6.11	Design	\$598,000	29
						0.60			2.97	0.11	Construction	\$9,072,000	31

Total Capital Improvement Cost \$9,670,000

Funding Source: Capital

Project Location and Photos





Project Name: **SEWER SYSTEM UNPLANNED REPAIRS**

Project Code: Asset Owner/Dept: URS **Pumps** DVR 0

Project Contact: TBD Project Management Dept: Engineering

Project Description/ Benefits

Project Status: 10-yr Plan

This is a rolling fund to ensure funding is available for any unforeseen collection system, WWTP, and DVR emergencies. This money could be used for in-house costs or outside contactor.

Operation and Maintenance Impacts
Reduced Reactionary Maintenance

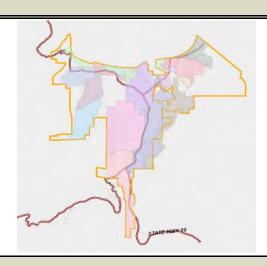
19-20 CIP Planning	CIP No. 9

Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.50	0.50										Design		
0.50	0.50										Construction	\$500,000	24

Total Capital Improvement Cost \$500,000

Funding Source: Capital **Project Location and Photos**





Project Name: SEWER FORCE MAIN ASSET MANAGEMENT

Project Code: 0 Asset Owner/Dept: URS
Project Contact: Steve Caswell Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project is an ongoing asset management program that includes corrosion control, inspection, and flushing of collection system and expoer force mains. ARV Maintenance and Replacement has been funded separately, diverting funds from this program in the years it is implemented. Once these AM programs are incorporated into the Operations O&M and Capital Budgets, that portion will no longer be funded through the Engineering CIP.

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	cts
Asset L	ife Exte	ension								Reduc	ed Reactionary	Maintenance	<u>;</u>
High Co	onsequ	ence of	Failure	!						Increa	se Planned Ma	intenance	
System	n Monit	oring/R	Remote	Contro	I								
Refere	nce Do	cument	t										
Prop 2	18 Plan	ning (20	018)									CIP No.	11
Project	t Fundi	ng											
Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning	\$1,190,000	28+
					0.53	0.13	0.13	0.13	0.14	0.14	Design		
					0.53	0.13	0.13	0.13	0.14	0.14	Construction		
								Tota	al Capit	al Impr	ovement Cost	\$1,190,000	

Funding Source: Capital Project Location and Photos







Project Name: FLL FM SHOREZONE STABILIZATION

Project Code:0Asset Owner/Dept:URSProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

Wave action along the south shore of Fallen Leaf Lake has eroded the beach and puts the existing force main at risk. The proposed project, to be constructed in coordination with the FLL Homeowners, protects and stabilizes this stretch of beach.

Need f	or Proj	ect								Opera	tion and Maint	tenance Impa	cts
High C	onsequ	ence of	f Failure	5						Reduc	ed Reactionary	Maintenance	
Other	Enviror	mental	Benefi	t									
Refere	nce Do	cumen	t							Ļ			
23-24	CIP Plar	nning										CIP No.	12
Projec	t Fundi	ng											
Capita	l Impro	vemen	t Exper	diture	s (Millio	ons)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.16								Design					
0.16							Construction	\$155,000	24				
								Tota	al Capi	tal Imp	rovement Cost	\$155,000	

Funding Source: Capital Project Location and Photos



Comments



Project Name: FM INSPECTION PORTS - BIJOU/JOHNSON

Project Code:BJJNIPAsset Owner/Dept:URSProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

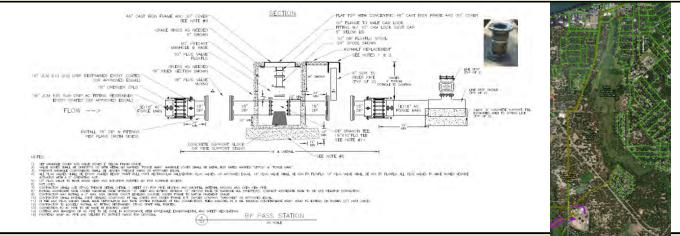
The conceptual plan for this project is to provide 4 bypass/inspection ports on 2 FMs: 1 BJ to JN, 1 SR to JN, 2 JN to WWTP (on BJ12), 2 JN to WWTP (on BJ16). This layout provides ports at approximately 1/2 mile spacing and would allow for pigging, TV and bypass. Emergency bypass is a secondary priority of this project, if both FMs can be maintained, because BJ12 and BJ16 are redundant to each other. Project will start with 2 inspection only ports (no bypass) on Bijou 12 from Johnson to WWTP.

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	acts	
High Co	onsequ	ence of	Failure	?						Reduc	ed Reactionary	/ Maintenanc	e	
Asset L	ife Exte	ension								Ease of access				
System	n Monit	oring/R	emote	Contro	I	Increa	sed Planned M	aintenance						
Emerge	ency Re	sponse												
Refere	nce Do	cument	ţ											
19-20 (CIP Plar	ning										CIP No	. 13	
Project	t Fundiı	ng												
Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year	
FY24 25 26 27 28 29 30 31 32 33											Planning			
0.10							Design							
0.10						0.24	0.50	0.26			Construction	\$1,109,000	24,30-31	

Total Capital Improvement Cost \$1,109,000

Funding Source: Capital

Project Location and Photos





Project Name: FORCE MAIN ARV REPLACEMENT PROJECT

Project Code:FMARVSAsset Owner/Dept:URSProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces 10 of the over 150 ARVs in the sewer system, where full replacement of the ARV vault and valves is required based on results of 2019 ARV inspection.

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	cts
Reliabi	lity/Red	dundan	су							Additi	on of Assets		
System	n Monit	oring/R	emote	Contro	l					Reduc	ed Reactionary	Maintenance)
Asset L	ife Exte	ension								Safety	Improvements	S	
Emerge	ency Re	sponse											
Refere	nce Do	cument								•			
19-20 (CIP Plar	ning										CIP No.	14
Project	t Fundiı	ng											
Capita	l Impro	vement	Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.15	0.29	0.20									Design	\$52,000	23
0.15	0.29	0.20									Construction	\$584,000	25
								Tota	al Capi	tal Impi	rovement Cost	\$636,000	

Funding Source: Capital
Project Location and Photos







Project Name: FORCE MAIN BYPASS (TAHOE KEYS)

Project Code:0Asset Owner/Dept:URSProject Contact:Brent GoligoskiProject Management Dept:Eng

Project Description/ Benefits

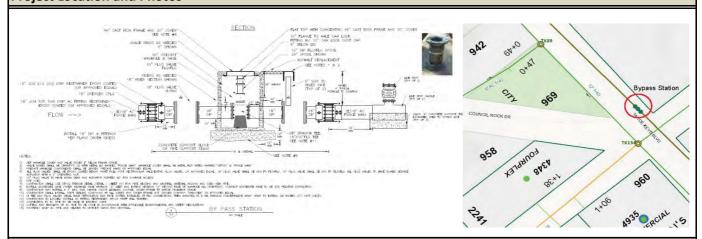
Project Status: 10-yr Plan

This project uses the remainder of funds that were set aside for the installation of a second bypass station on the Tahoe Keys Force Main to repair an inoperable valve on the first bypass station that was installed in 2013. Without this valve functioning, the station may not function as designed during an emergency.

Need f	or Proj	ect								Opera	tion and Maint	tenance Impa	cts
High C	onsequ	ence of	f Failure	5						Reduc	ed Reactionary	Maintenance	
Emerg	ency Re	esponse	<u> </u>										
Refere	nce Do	cumen	t										
* Choo	se Best	t Optior	1									CIP No.	15
Project	t Fundi	ng											
Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.04											Design		
0.04											Construction	\$37,550	24
						-		Tota	al Capi	tal Imp	rovement Cost	\$37,550	

Funding Source: Capital

Project Location and Photos



Comments



Project Name: BALDWIN BEACH FORCE MAIN SLIPLINING

Project Code:0Asset Owner/Dept:URSProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project performs rehabilitation on the 1/2-mile long force main that extends from the Baldwin Beach Pump Station to Hwy 89. By sliplining this force main, it is downsized to match the capacity of the new pumps that will be installed as part of the Baldwin Beach Pump Station Project, and this project will be constructed in coordination with that pump station rehabilitation. The Baldwin Beach Pump Station and Force Main were originally designed in the 1960s for future development that never occurred and is no longer anticipated. The force main will be sized based on sewer flow monitoring; max flows are anticipated to correspond to the 4th of July holiday. Design of this project has been funded by the USFS in coordination with the Taylor-Tallac restoration project.

Need 1	for Proj	ect								Opera	ition and Mair	ntenance Impa	cts
Intera	gency C	oordina	ation										
Systen	n Efficie	ency											
Fundir	ng Oppo	ortunity											
		·											
Refere	ence Do	cumen	t							L			
Collect	tion Sys	tem Ma	aster Pl	an Dec	2009							CIP No.	16
Projec	t Fundi	ng											
Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)	·	·	·			Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
	0.34	0.69									Design	\$150,000	24

Total Capital Improvement Cost \$1,030,000

Construction \$880,000

Funding Source: USFS Participation Agreement

Project Location and Photos





Comments

This project is scheduled to be constructed in coordination with Baldwin Beach Pump Station.

Page 16

25



Project Name: BELLEVUE FORCE MAIN RELOCATION

Project Code:0Asset Owner/Dept:URSProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The 3000 ft long Bellevue Force Main is currently located on an easement that borders the Upper Truckee Meadow, parallel to the gravity main that serves the homes bordering the meadow on El Dorado Avenue. The easement is very difficult to access even in dry conditions, and impossible to access when the meadow has flooded. If the force main were to fail a spill into Lake Tahoe would be imminent. This project, which would be constructed in coordination with relocation of the Bellevue Gravity Main and Bellevue Pump Station Project, would relocate the force main from the meadow up to El Dorado Avenue. If the gravity main is not relocated, then rehabilitation of the force main in place will also be considered for use of this project budget.

Need f	for Proj	ect								Opera	tion and Maint	tenance Impa	cts
Other	Environ	mental	Benefi	t						Ease c	of access		
										Reduc	ed Reactionary	Maintenance	
	nce Do		t										
24-25	CIP Plar	nning										CIP No.	17
Projec	t Fundi	ng											
Capita	l Impro	vemen	t Exper	nditures	(Millio	ons)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
_	0.05		0.41	0.04							Design	\$52,000	24
	0.05		0.41	0.84							Construction	\$1,249,000	25
								Tota	al Capi	tal Imp	rovement Cost	\$1,301,000	

Funding Source: SRF (Tentative)

Project Location and Photos



Comments

This project is scheduled to be constructed in coordination with Bellevue Pump Station and Gravity Main.



Project Name: GRAVITY SEWER REHAB PROGRAM (CIPP 1300LF/YR)

Project Code:AMSEWRAsset Owner/Dept:URSProject Contact:Trevor CoolidgeProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project provides a placeholder for future Cast-in-Place Pipe rehabilitation projects for gravity mains on the sewer system. CIPP is the District's technology of choice to address damaged mainlines (holes, cracks, deterioration), root intrusion and I&I, where the defects are not also accompanied by sags/bellies. Based on CCTV performed in 2018 and 2019, the current condition of the sewer mains suggests that the District should be rehabilitating pipes with CIPP at a rate of 1300LF/YR. However, specific project areas may not have been delineated at the time the Ten-Year plan is created. If that's the case, then this project will hold funds for future projects at the recommended rate of completion. The scope for a CIPP project is assumed to include manhole rehabilitation, mainline lining, and a lateral "tophat" at the connection to the main, but excludes full lateral rehabilitation of the lateral from the main to the cleanout at the property line. Lateral rehabilitation/replacement would be considered on a case-by-case basis, and would increase the cost of the project proportionally to the number of laterals being fixed.

leed for Project	Operation and Maintenance Impacts
sset Life Extension	Reduced Reactionary Maintenance
ystem Efficiency	Reduced Planned Maintenance
sset Management	

Reference Document

19-20 CIP Planning CIP No. 18

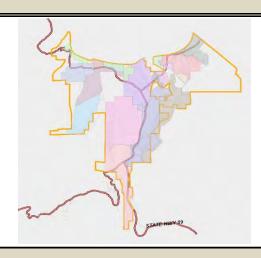
Project Funding

Capita	l Impro	vemen	t Expen		Total	Year				
FY24	25	26	27	Planning						
								Design		
								Construction		N/A

Total Capital Improvement Cost \$0

Funding Source: TBD
Project Location and Photos







Comments

As of FY24, all replacement funds have been allocated to specific projects through FY33.



Project Name: GRAVITY SEWER REPLACEMENT PROGRAM (4000LF/YR)

Project Code:AMSEWRAsset Owner/Dept:URSProject Contact:Trevor CoolidgeProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project provides a placeholder for future sewer gravity main replacement projects. Replacement of a main (and associate manholes) is typically required for the following situations: (1) where damaged mainlines (holes, cracks, deterioration), root intrusion or I&I, is accompanied by sags/bellies, (2) if the existing main alignment needs to be relocated for some reason, (3) to correct for construction defects that cannot be rectified by lining, or (4) if the larger system configuration allows for the gravity main to be steepened to minimize flat pipes and avoid future sags. Based on CCTV performed in 2018 and 2019, the current condition of the sewer mains suggests that the District should be rehabilitating pipes with CIPP at a rate of 4000LF/YR. However, specific project areas may not have been delineated at the time the Ten-Year plan is created. If that's the case, then this project will hold funds for future projects at the recommended rate of completion. The scope for a gravity main replacement project is assumed to include mainline and manhole replacement and extension/connection to the existing lateral. Lateral replacement would be considered on a case-by-case basis, and would increase the cost of the project proportionally to the number of laterals being replaced.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance
	Reduced Planned Maintenance

Reference Document

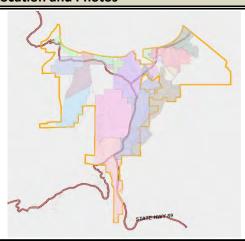
19-20 CIP Planning	CIP No. 19
--------------------	------------

Project Funding

Capital	l Impro	vement	t Expen		Total	Year							
FY24	FY24 25 26 27 28 29 30 31 32 33 34										Planning	\$50,000	23
0.05							1.41	1.26	1.10	3.71	Design	\$446,000	31+
0.05							1.41	1.20	1.10	5./1	Construction	\$7,030,000	31+

Total Capital Improvement Cost \$7,526,000

Funding Source: Capital Project Location and Photos





Comments

Page

19



Project Name: I&I REDUCTION PROGRAM

Project Code:0Asset Owner/Dept:URSProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

Massive winter storms in 2017 and 2023 have highlighted the need for a capital program that is focused on reducing infiltration (ie., groundwater) and inflow (ie., storm water) entering the sewer system. Based on flow data from the wastewater treatment plant, one million gallons of I&I is collected and treated every day. That accounts for 25-30% of the total water we treat and it costs the District around \$6M per year to collect, treat and pump that water out of the Tahoe Basin. By spending \$11M in a ten year period identifying and repairing the worst I&I problems, the goal is to reduce I&I flows by around 1/3. This program provides a placeholder to fund I&I reduction projects for gravity mains on the sewer system. As individual projects are identified and added to the CIP, the value of this program will be reduced equivalently.

Need f	or Proj	ect			Operation and Maintenance Impacts								
Other	Environ	mental	Benefi	t	Reduced Reactionary Maintenance								
System	n Efficie	ncy											
Refere	nce Do	cumen	t										
24-25										l	I	CIP No.	20
Projec											l	CII IVO.	20
Capita	l Impro	vemen	t Exper	ditures			Total	Year					
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
													i i

FY24 25 26 27 28 29 30 31 32 33 34 Planning

Begin Struction Struction Planning Design St,000,000 28+ St,000,000 30+

Total Capital Improvement Cost \$11,000,000

Funding Source: Capital

Project Location and Photos





Project Name: KEYS CIPP PROJECT

Project Code:TKLIN1Asset Owner/Dept:URSProject Contact:Trevor CoolidgeProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project rehabilitates approximately 11,000 If of gravity sewer main using cast-in-place pipe to address defects identified via CCTV that do not require full replacement in an area of high groundwater and past incidents of high I&I and pipe collapse. The project budget currently includes manhole lining and tophat seals at laterals, but excludes lining the laterals to the cleanout.

	eed for Project Operation and Maintenance Impacts														
Need f	or Proj	ect								Opera	tion and Maint	tenance Impa	cts		
System	n Efficie	ncy								Reduc	Reduced Reactionary Maintenance				
Asset L	Asset Life Extension										ed Planned Ma	intenance			
Defens	Reference Document														
Ketere	nce Do	cumen	τ												
23-24 (CIP Plar	nning										CIP No. 22			
Project	t Fundi	ng													
Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)						Total	Year		
FY24	25	26	27	28	29	30	31	32	33	34	Planning				
0.71	0.71 1.45										Design	\$130,000			
0.71	Construction \$											\$2,029,000	24		
	Total Capital Improvement Cost \$5										\$2,159,000				

Funding Source: Capital Project Location and Photos



Comments



Project Name: HERBERT WALKUP REPLACEMENT

Project Code:WALKUPAsset Owner/Dept:URSProject Contact:Brent GoligoskiProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces up to approximately 2400 If of mainline, 9 manholes and 18 sewer laterals on Woodland, Walkup and 3 segments on easements crossing properties on Becka, Bruce and Janet. Actual scope may be reduced through design. This project was identified through CCTV as having sags and multiple structural defects, and addresses several pipes on the Enhanced Cleaning List.

Need f	or Proj	ect								Opera	tion and Maint	enance Impa	cts		
Mainte	enance	History	1							Reduc	Reduced Planned Maintenance				
Asset F	Asset Replacement/End-of-Life														
Refere	nce Do	cumen	t												
23-24 (CIP Plar	nning										CIP No.	23		
Project	t Fundi	ng													
Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)						Total	Year		
FY24	25	26	27	28	29	30	31	32	33	34	Planning				
0.63	0.63 1.30										Design	\$114,000	23		
0.62	1.28					Construction	\$1,783,000	24							
					tal Imp	rovement Cost	\$1,897,000								

Funding Source: Capital



Comments

This project will be constructed in coordination with the Herbert/Walkup Waterline Project.



Project Name:BALDWIN BEACH GRAVITY REHAB/REPLACEMENT (2200 FT)Project Code:BBSEWRAsset Owner/Dept:URSProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project removes gravity sewer mains and manholes from sensitive areas at Baldwin Beach (beach and wetland), and relocates them along the road from the west parking lot to the pump station (BJ9 to BBPS) installing approximately 2200 If of new main and associated manholes. The existing main is hard to access and has never been inspected.

Need f	or Proj	ect								Opera	ration and Maintenance Impacts			
Mainte	enance	History								Reduc	Reduced Reactionary Maintenance			
High C	onsequ	ence of	Failure	!	Increa	Increased Planned Maintenance								
Interag	gency C	oordina	tion											
Other	ther Environmental Benefit													
Refere	Reference Document													
20-21	CIP Plar	nning										CIP No.	24	
Project	t Fundi	ng												
Capita	l Impro	vement	Expen	ditures	(Millio	ns)						Total	Year	
FY24	25	26	27	28	29	30	31	32	33	34	Planning			
0.05	0.05 0.50 1.04											\$399,000	26	
0.03	0.03 0.30 1.04 Constructio												25	
	Total Capital Improvement Cost \$													

Funding Source: USFS Participation Agreement

Project Location and Photos



Comments

The project is planned to coordinate with the USFS Taylor Tallac Restoration Project and Baldwin Beach Pump Station Rehab, to minimize distrubance at this environmentally sensitive and popular tourist attraction.



BAL BIJOU ROAD GRAVITY MAIN CIPP Project Name:

Project Code: URS BALBMH Asset Owner/Dept: Project Contact: TBD Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project rehabs pipes using cast-in-place-pipe lining of gravity sewer main with continuous defects that can be repaired with liner and do not require replacement. The project area reahbilitates PVC and AC sewer pipe from Johnson Pump Station to Bal Bijou Road, and from Timber Cove Lodge to Lakeland Village. The length of rehabilitation is 3,261 lf of sewer main identified from 2018 CCTV Condition Assessment. Cost includes manhole rehab and lateral tophat, but no lateral rehab.

Need for Project	Operation and Maintenance Impacts
Maintenance History	Reduced Reactionary Maintenance
Asset Life Extension	

Reference Document

Pro	p 218 Planning (2018		CIP No. 25

Project Funding

	Capital	l Impro	vemen	t Expen		Total	Year							
I	FY24 25 26 27 28 29 30 31 32 33 34 F													
ſ	0.02							0.26	0.54			Design	\$49,000	30
ı	0.02							0.26	0.54			Construction	\$756,000	31
г														

Total Capital Improvement Cost \$805,000

Funding Source: Capital **Project Location and Photos**





Project Name: SEWER REPLACEMENT 89 AND 5TH

Project Code:0Asset Owner/Dept:URSProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces approximately 390 LF of gravity main (TK515 to TK474) on Enhanced Cleaning list for months hydro. The segment under Hwy 89 has a known belly, since at least 2009. Further upstream, frequent maintenance is required to address flat pipe and FOG from Chinese Restaurant.

Need for Project	Operation and Maintenance Impacts
Maintenance History	Reduced Reactionary Maintenance
High Consequence of Failure	Reduced Planned Maintenance
Reference Document	

 	Document

2009 CSMP CIP No. 26

Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
							0.20	0.21			Design	\$20,000	25
							0.20	0.21			Construction	\$390,000	31

Total Capital Improvement Cost \$410,000

Funding Source: Capital Project Location and Photos



Comments

Construct in coordination with Shop Street.



Project Name: UPPER TRUCKEE RIVER GRAVITY MAIN CIPP

Project Code:ECJMDWAsset Owner/Dept:URSProject Contact:Mark SeelosProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project rehabs and raises manholes, and performs CIPP Spot Repair on the 21" diameter gravity main in the Upper Truckee Meadow from UTPS to Airport. The project will be constructed in coordination with the TRCD Johnson Meadow Restoration Project.

Need f	or Proj	ect								Opera	ation and Main	tenance Imp	acts
Mainte	enance	History								Reduc	ed Reactionary	/ Maintenanc	е
Asset Life Extension													
- ·													
Refere	nce Do	cument	t										
19-20	CIP Plar	nning										CIP No	. 27
Project	t Fundiı	ng											
Capita	l Impro	vemen	t Expen	ditures	(Millic	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.05		0.21	0.44								Design	\$52,000	
0.05		0.21	0.44								Construction	\$648,000	26

Total Capital Improvement Cost

Funding Source: Capital Project Location and Photos



Comments

Project cost excludes relocation of existing gravity main and improvements to easement access to accommodate changes to the river course.



Project Name: SKI RUN BLVD GRAVITY MAIN REPLACEMENT

Project Code:0Asset Owner/Dept:URSProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces gravity mains where damage is of a nature that requires full replacement in lieu of CIPP lining (such as sags or flat slopes). The project area replaces AC and DIP sewer pipes in Ski Run Blvd from David Lane to Highway 50. The length of pipe to be replaced is 4,170 If identified from 2018 CCTV Condition Assessment. Cost includes manhole rehab and lateral top plate, but no lateral rehab.

Need for Project	Operation and Maintenance Impacts
Maintenance History	Reduced Reactionary Maintenance
Asset Replacement/End-of-Life	

Reference Document

Prop 218 Planning (2018)			CIP No. 28
--------------------------	--	--	------------

Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
						0.06		1.21	2.50		Design	\$268,000	27
						0.06		1.21	2.50		Construction	\$3,507,000	32
												4	

Total Capital Improvement Cost \$3,775,000

Funding Source: Capital Project Location and Photos





Project Name: SHOP STREET GRAVITY MAIN REPLACEMENT

Project Code:0Asset Owner/Dept:URSProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces gravity mains where damage is of a nature that requires full replacement in lieu of CIPP lining(such as sags or flat slope). The project area replaces VCP sewer pipe in Shop Street from Industrial Ave. to D Street. The length of rehabilitation is 1,397 If of sewer main identified from 2018 CCTV Condition Assessment. Cost includes manhole rehab and lateral top plate, but no lateral rehab.

Need for Project	Operation and Maintenance Impacts
Maintenance History	Reduced Reactionary Maintenance
Asset Replacement/End-of-Life	

Reference Document

Prop 218 Planning (2018) CIP No. 29

Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
				0.06			0.40	0.81			Design	\$54,000	25
				0.06			0.40	0.61			Construction	\$1,213,000	31
										_		4	

Total Capital Improvement Cost \$1,267,000

Funding Source: Capital Project Location and Photos



Comments

Construct in coordination with 5th Street/Hwy 89



Project Name:MONTGOMERY ESTATES EASEMENTS CIPP PH 1 (4800 LF)Project Code:MESWR1Asset Owner/Dept:URSProject Contact:Trevor CoolidgeProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project was identified as a high priority by URS due to exessive roots in clay pipes in the Montgomery Estates neighborhood. While the I&I from this neighborhood does not appear to be excessive (the Trout Creek Basin is one of the District's lowest I&I areas), the roots require increased maintenance over other areas of the system. The project would use CIPP to line mains and connections to laterals, and perform manhole rehabilitation. Lining laterals (connection to cleanout) is not included in the project scope, but may be added after additional inspection is performed. This project includes approximately 4800 LF of mainline, focused on easements.

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	cts
Asset L	ife Exte	ension								Reduc	ed Reactionary	/ Maintenance	<u> </u>
Mainte	enance	History								Reduc	ed Planned Ma	aintenance	
Refere	nce Do	cument	<u> </u>										
20-21 (CIP Plar	ning										CIP No.	30
Project	t Fundiı	ng											
Capita	l Impro	vement	t Expen	ditures	(Millic	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.05	0.21	0.63									Design	\$52,000	24
0.05	0.31	0.63									Construction	\$938,000	25

Funding Source: Capital Project Location and Photos





Total Capital Improvement Cost \$990,000



Project Name:MONTGOMERY ESTATES EASEMENTS CIPP PH 2 (5000LF)Project Code:0Asset Owner/Dept:URS

Project Contact: Trevor Coolidge Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project was identified as a high priority by URS due to exessive roots in clay pipes in the Montgomery Estates neighborhood. While the I&I from this neighborhood does not appear to be excessive (the Trout Creek Basin is one of the District's lowest I&I areas), the roots require increased maintenance over other areas of the system. The project would use CIPP to line mains and connections to laterals, and perform manhole rehabilitation. Lining laterals (connection to cleanout) is not included in the project scope, but may be added after additional inspection is performed. This project includes approximately 5000 LF of mainline, focused on easements.

Need for Project	Operation and Maintenance Impacts
Asset Life Extension	Reduced Reactionary Maintenance
Maintenance History	Reduced Planned Maintenance

Reference Document

20-21 CIP Planning CIP No. 31

Project Funding

Capi	tal In	nprov	/ement	t Expen	ditures	(Millio	ns)						Total	Year
FY2	4 :	25	26	27	28	29	30	31	32	33	34	Planning		
							0.40	0.82				Design	\$72,720	28
							0.40	0.62				Construction	\$1,139,280	30
													4	

Total Capital Improvement Cost \$1,212,000

Funding Source: Capital Project Location and Photos







Project Name: HWY 50 / SKI RUN TO PIONEER TRAIL REPLACEMENT (4300 LF)

Project Code: 0 Asset Owner/Dept: URS

Project Contact: Brent Goligoski Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces gravity mains where damage is of a nature that requires full replacement in lieu of CIPP lining. In this case, intruding laterals and sags. This project also proposes to upsize the main to better handle increase dry and wet weather flows along Hwy 50 from Pioneer Trail (Stateline) to Ski Run, and one block up Ski Run. The project will replace 4,300 lf of mainline and manholes in a new location. Existing laterals will be extended, but not replaced.

Need f	or Proj	ect								Opera	tion and Maint	tenance Impa	cts
Asset F	Replace	ment/E	nd-of-l	ife						Reduc	ed Planned Ma	intenance	
High C	onsequ	ence of	Failure	9						Reduc	ed Reactionary	Maintenance	!
Refere	nco Do												
22-23 (CIP Plar	nning										CIP No. 32	
Project	t Fundi	ng											
Capita	l Impro	vemen	t Exper	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.26				2.42	F 01			Design	\$276,000	24			
0.26				2.43	5.01						Construction	\$7,420,000	28
	Total Capital Improvement Co											\$7,696,000	-

Funding Source: Capital

Project Location and Photos



Comments



Project Name: HOPI AREA GRAVITY MAIN REPLACEMENT

Project Code:0Asset Owner/Dept:URSProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces gravity mains where damage is of a nature that requires full replacement in lieu of CIPP lining (such as sags). This project replaces 2,446 If of mainline and manholes in a new location. Existing laterals will be extended, but not replaced.

Need f	or Proj	ect								Operation and Maintenance Impacts					
Asset F	Replace	ment/E	nd-of-l	_ife						Reduc	ed Planned Ma	intenance			
	ofaranca Dacument									Reduc	ed Reactionary	Maintenance			
Refere	eference Document														
22-23	CIP Plar	nning										CIP No.	33		
Projec	t Fundi	ng													
Capita	l Impro	vemen	t Exper	diture	s (Millio	ons)						Total	Year		
FY24	25	26	27	28	29	30	31	32	33	34	Planning				
					0.04			Design	\$36,000	26					
					0.04	0.67	1.38				Construction	\$2,055,000	30		
	Total Capital Improvement Cost									\$2,091,000					

Funding Source: Capital







Comments



Project Name: HOPI AREA CIPP REHABILITATION

Project Code: 0 Asset Owner/Dept:

Project Contact: TBD Project Management Dept:

Project Description/ Benefits

Project Status: 10-yr Plan

This project rehabilitates approximately 2,200 If of gravity sewer main using cast-in-place pipe to address defects identified via CCTV that do not require full replacement. The project budget currently includes manhole lining and tophat seals at laterals, but excludes lining the laterals to the cleanout.

Need f	or Proj	ect								Opera	tion and Maint	tenance Impa	cts
Asset I	ife Exte	ension											
Refere	Reference Document												
22-23	CIP Plar	nning										CIP No.	34
Projec	t Fundi	ng											
Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
					0.04		Design	\$36,000	26				
	0.04 0.53											\$533,000	31
	Total Capital Improvement Cost										\$569,000		

Funding Source: Capital

Project Location and Photos





Comments



Project Name: TAKELA FREMONT CIPP REHABILITATION

Project Code:0Asset Owner/Dept:URSProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

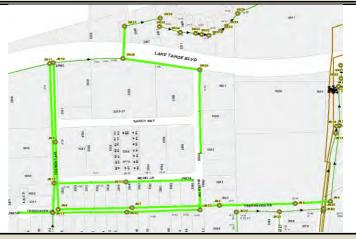
Project Status: 10-yr Plan

This project rehabilitates approximately 2,200 If of gravity sewer main using cast-in-place pipe to address defects identified via CCTV that do not require full replacement. The project budget currently includes manhole lining and tophat seals at laterals, but excludes lining the laterals to the cleanout.

Need f	or Proj	ect								Opera	tion and Maint	tenance Impa	cts
Asset I	ife Exte	ension								Reduc	ed Planned Ma	intenance	
	oforance Document									Reduc	ed Reactionary	Maintenance	
Refere	eference Document												
22-23	CIP Plar	nning										CIP No.	35
Projec	t Fundi	ng											
Capita	l Impro	vemen	t Exper	nditures	(Millio	ons)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.02	.02 0.03 0.28 0.57										Design	\$33,000	25
0.02	0.03 0.26 0.37										Construction	\$857,000	27
	Total Capital Improvement Cos									\$890,000			

Funding Source: Capital Project Location and Photos





Comments



Project Name: GOLDEN BEAR GRAVITY MAIN PROTECTION PROJECT

Project Code:0Asset Owner/Dept:URSProject Contact:Mark SeelosProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project addresses Site GS072 of the 2022 Stream Crossings Assessment, in which the existing concrete cap over an AC Sewer Main of unknown size (12"+) is exposed in Trout Creek near Golden Bear Trail (TR217-TR216). The exposed cap is thin (2" thick) and 4 feet wide by 7 feet long is visible in left bank. A section of cap also appears to be missing. Channel incision and bank erosion is expected to continue. The exposed pipe serves much of the Trout Creek Basin. Protection for this pipe is expected to include a combination of stream stabilization, renewed protection and converting the gravity main to an inverted siphon in this location.

										1_			
Need 1	or Proj	ect								Opera	tion and Maint	tenance Impa	cts
Asset I	ife Exte	ension								Reduc	ed Reactionary	Maintenance	
High C	onsequ	ence of	Failure	9									
Other	ther Environmental Benefit												
Refere	Reference Document												
2022 (Geomor	phic Ris	k Eval	of Strea	m Cros	ssings						CIP No.	36
Projec	t Fundi	ng											
Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
		0.08			0.13			Design	\$115,000	27			
	0.08 0.13 0.27										Construction	\$366,000	29
	Total Capital Improvement Cost										\$481,000		

Funding Source: Capital

Project Location and Photos





Comments

Scheduled to construct with Lake Christopher project.



Project Name: LAKE CHRISTOPHER GRAVITY MAIN REPLACEMENT

Project Code:0Asset Owner/Dept:URSProject Contact:Mark SeelosProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project addresses Site GS069 of the 2022 Stream Crossings Assessment, in which a gully hedcut channel has exposed a 10 ft length of pipe in the channel bottom (top 0.8 ft exposed) near MH TR80. Bank erosion is expected to continue. The proposed solution is expected to reroute the sewer main upstream of TR73 through the Meadow Lakes neighborhood to TR81, and replace the main from TR81 to TR42 with a directional drill that either sites a replacement to TR80 in a more preferable location within the meadow, or converts the pipe to an inverted siphon.

	Need for Project Operation and Maintenance Impacts													
Need f	or Proj	ect								Opera	tion and Maint	tenance Impa	cts	
Asset I	ife Exte	ension								Reduc	ed Reactionary	Maintenance		
High C	onsequ	ence of	f Failure	9										
Other	ner Environmental Benefit													
Refere	Reference Document													
2022 C	Geomor	phic Ris	sk Eval	of Strea	ım Cros	ssings						CIP No.	37	
Projec	t Fundi	ng												
Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)						Total	Year	
FY24	25	26	27	28	29	30	31	32	33	34	Planning			
		0.27			2.04			Design	\$1,559,000	27				
		0.27			2.04	4.19					Construction	\$4,936,000	29	
	Total Capital Improvement Cost										\$6,495,000			

Funding Source: Capital Project Location and Photos





Comments

Scheduled to construct with Golden Bear project.

Page

37



Project Name: BELLEVUE GRAVITY MAIN RELOCATION

Project Code:0Asset Owner/Dept:URSProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

There is currently approximately 2,650 LF of gravity main located on an easement that borders the Upper Truckee Meadow, serving homes on El Dorado Avenue. The easement is very difficult to access even in dry conditions, and impossible to access when the meadow has flooded. In 2023, the manholes along this stretch were under water, and the Bellevue Pump Station was moving 10x its normal volume of water. If the gravity main were to fail a spill into Lake Tahoe would be imminent. This project, which would be constructed in coordination with relocation of the Bellevue Force Main and Bellevue Pump Station Project, would relocate the gravity main from the meadow up to El Dorado Avenue. If the gravity main is not relocated, then rehabilitation of the manholes and gravity main in place will also be considered for use of this project budget. The budget does not currently include funding to offset the cost for individual customer lift stations, which would likely be needed for some customers to access the new main.

Need for Project	Operation and Maintenance Impacts
Other Environmental Benefit	Ease of access
	Reduced Reactionary Maintenance

Reference Document

24-25 CIP Planning			CIP No. 38
--------------------	--	--	------------

Project Funding

Capita	l Impro	vemen	t Exper	ditures	s (Millio	ons)					Total	Year
FY24	25	26	27	28	34	Planning						
	0.10		1.42	2.92						Design	\$103,000	24
	0.10		1.42	2.92						Construction	\$4,341,000	27

Total Capital Improvement Cost \$4,444,000

Funding Source: SRF (Tentative)

Project Location and Photos





Comments

This project is scheduled to be constructed in coordination with Bellevue Pump Station and Gravity Main.



Project Name: SEWER SYSTEM ACCESS IMPROVEMENTS

Project Code:0Asset Owner/Dept:URSProject Contact:Mark SeelosProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project will work with URS and property owners to identify access needs and make the most critical improvements needed for ongoing maintenance and inspection of sewer mains. Many sewer mains lie in hard-to-reach sensitive areas, and so have received little to no periodic maintenance, and have only received visual inspection (no CCTV). This project is the first step in what is expected to be a larger and ongoing asset management effort.

Need for Pro	ject								Opera	tion and Main	tenance Impa	cts				
Maintenance	History								Increa	sed Planned M	laintenance					
High Conseq	igh Consequence of Failure										Ease of access					
Emergency R	mergency Response															
Other Enviro	Other Environmental Benefit															
Reference D	ocumen	t														
Other											CIP No.	39				
Project Fund	roject Funding															
Capital Impr	pital Improvement Expenditures (Millions)										Total	Year				
FY24 25	Y24 25 26 27 28 29 30 31 32 33															

Design \$55,000 24
Construction \$1,154,000 26

Total Capital Improvement Cost \$1,209,000

Funding Source: Capital Project Location and Photos

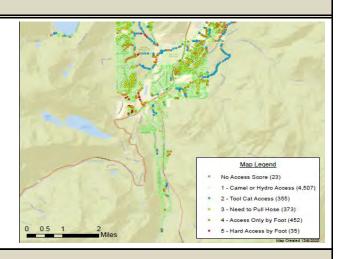
0.17

0.35

0.16

0.04







FIELD COMMUNICATION UPGRADES PHASE 2 Project Name:

Project Code: FLDCM2, TPTOWR **Asset Owner/Dept:** Pumps, Ops, Elec, IT

Project Management Dept: Eng Project Contact: Julie Ryan

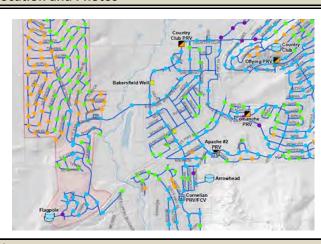
Project Description/ Benefits

Project Status: 10-yr Plan

This project will focus on the improvements for Flagpole Tower (Tower 3), and all upgrades needed at remote sites that will connect to Tower 3. Adds 5Ghz wireless ethernet radio and FIU at Flagpole. Connections over 173 MHz will be built out from remote water system sites near Tower 3. It is recommended that a ring configuration is created so that Flagpole Tower data is relayed to the Plant. This phase also includes installing a taller radio tower at the WWTP.

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	cts
Reliabi	lity/Red	dundan	су							Additi	on of Assets		
System	n Monit	oring/R	emote	Contro	I					Reduc	ed Reactionary	Maintenance	9
	ife Exte					Safety	[,] Improvement	S					
Emerg	ency Re												
Refere	nce Do												
Comm	unicatio	on Stud	y Repoi	rt (2018	3)							CIP No. 40	
Projec	t Fundii	ng											
Capita	l Impro	vement	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.09											Design		
0.09											Construction	\$260,000	23
	Total Capital Improvement Co											\$260,000	•

Funding Source: Capital **Project Location and Photos**





Comments



Project Name: FIELD COMMUNICATION UPGRADES PHASE 3

Project Code: FLDCM3 Asset Owner/Dept: Pumps, Ops, Elec, IT

Project Contact: Julie Ryan Project Management Dept: Eng

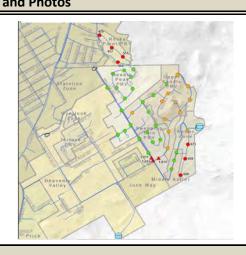
Project Description/ Benefits

Project Status: 10-yr Plan

This project focuses on communication improvements for Keller Tower (Tower 1), upgrades needed for remote water and sewer sites that will connect to tower 1, and any upgrades at remote sites that will connect directly to the WWTP (Control 1). Adds 5 Ghz wireless ethernet and FIU at Keller. Connections over 173 MHz will be built out from remote sites near Tower 1.

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	cts			
Reliabi	lity/Red	dundan	су							Additi	on of Assets					
System	n Monit	oring/R	emote	Contro	I					Reduc	Reduced Reactionary Maintenance					
Asset L	ife Exte	ension								Safety	Improvements	S				
Emerg	ency Re	sponse														
Refere	nce Do															
Comm	unicatio	on Stud	y Repor	rt (2018	3)							CIP No.	41			
Projec	t Fundi	ng														
Capita	l Impro	vement	t Expen	ditures	(Millio	ns)						Total	Year			
FY24	25	26	27	28	29	30	31	32	33	34	Planning					
0.31											Design					
0.51						Construction	\$310,000	24								
	Total Capital Improvement Co															

Funding Source: Capital Project Location and Photos







Project Name: SEWER PUMP STATION MONITORING PROGRAM

Project Code: AMPMPS Asset Owner/Dept: Pumps, Elec

Project Contact: Julie Ryan Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project will allow staff to monitor mechanical, and electrical assets at sewer pump stations, by adding new instrumentation for ongoing monitoring such as pump efficiency, vibration, and temperature tracking and analysis. This project will be deployed by the Electrical Department, with support from Engineering and Pumps, over the duration of the 10-year plan.

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	cts	
System	n Monit	oring/R	emote	Contro						Reduc	ed Reactionary Maintenance			
System Efficiency Increased										sed Planned M	aintenance			
Asset Life Extension Addition of Assets														
Reference Document														
Prop 2	18 Plan	ning (20	018)									CIP No.	42	
Project	t Fundii	ng									,	,		
Capita	l Impro	vement	Expen	ditures	(Millio	ns)						Total	Year	
FY24	25	26	27	28	29	30	31	32	33	34	Planning	\$2,397,000	ALL	
0.17	0.17 0.19 0.20 0.21 0.21 0.22 0.23 0.23 0.24 0.25 0.25													
	Total Capital Improvement Cost									\$2,397,000				

Funding Source: Capital Project Location and Photos



Comments

42



Project Name: TAHOE KEYS PUMP STATION REHABILITATION

Project Code: TKSPSR Asset Owner/Dept: Pumps, Elec

Project Contact: Brent Goligoski Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This station relies on two aging pumps with high vibration; standard for sewer is three pumps. The recommended alternative will replace the wetwell and pump motors and electrical systems. The new wetwell will accommodate three pumps.

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	cts
Mainte	enance	History								Reduc	ed Reactionary	Maintenance	
Asset L	Asset Life Extension Addition of Assets												
Asset Replacement/End-of-Life													
Reliabi	Reliability/Redundancy												
Reference Document													
Big 5 P	Big 5 Pump Station Alternatives Evaluation (2018)										CIP No.	43	
Project	t Fundiı	ng											
Capital	l Impro	vement	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
1.95	0.10										Design	\$20,000	21
1.95	1.55 0.10 Co									Construction	\$6,141,000	22-24	
								Tota	al Capit	al Imp	rovement Cost	\$6,161,000	

Funding Source: SRF
Project Location and Photos





Comments



Project Name: UPPER TRUCKEE PUMP STATION REHABILITATION

Project Code: UTSPSR Asset Owner/Dept: Pumps, Elec

Project Contact: Brent Goligoski Project Management Dept: Eng

Project Description/ Benefits

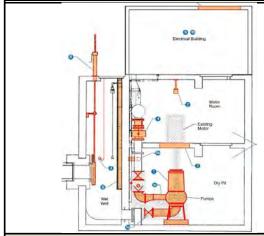
Project Status: 10-yr Plan

This station experiences high I&I, and relies on aging pumps with exposed drive rotating drive shaft. The recommended rehabilitations are replacing the pumps, install Flygt with Multismart; raise and seal the manhole cover; install a new bypass; replace the generator; install fall protection; replace panels, MCCs, and VFDs; install bypass vaults.

Need f	or Proj	ect								Opera	peration and Maintenance Impacts				
Asset L	ife Exte	ension								Reduc	Reduced Reactionary Maintenance				
Asset F	Asset Replacement/End-of-Life Safe											/ Improvements			
Mainte	Maintenance History														
High Co	ligh Consequence of Failure														
Refere	Reference Document														
Big 5 P	ump St	ation A	lternati	ves Eva	luation	(2018)						CIP No.	44		
Project	t Fundiı	ng													
Capita	l Impro	vement	t Expen	ditures	(Millio	ns)						Total	Year		
FY24	25	26	27	28	29	30	31	32	33	34	Planning				
3.39	0.85										Design	\$281,000	21		
3.33	0.63										Construction	\$4,251,000	23-25		
	Total Capital Improvement Cost									\$4,532,000					

Funding Source: SRF (Pending)

Project Location and Photos







Project Name: BIJOU PUMP STATION REHABILITATION

Project Code: BJUSPS Asset Owner/Dept: Pumps, Elec

Project Contact: TBD Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

Based on the STPUD Alt Evaluation by Carollo, there are two high priority projects for the Bijou pump station.

These two projects are replacing the power supply and equipment as well as repairing the roof and skylight. There is one medium priority project which is to replace the mismatched pumps.

Need for Project											tion and Main	tenance Impa	cts
Asset Life Extension											ed Reactionar	y Maintenance	j
Asset Replacement/End-of-Life Safety Improvements											:S		
System Efficiency													
Refere	nce Do	cument	t										
Big 5 P	ump St	ation A	lternati	ves Eva	luation	(2018)						CIP No.	45
Project	Project Funding											_	
Capital	l Impro	vemen	t Expen	ditures	(Millio	ons)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		

 Capital Improvement Expenditures (Millions)
 Total Year

 FY24
 25
 26
 27
 28
 29
 30
 31
 32
 33
 34
 Planning
 Design
 \$515,000
 21

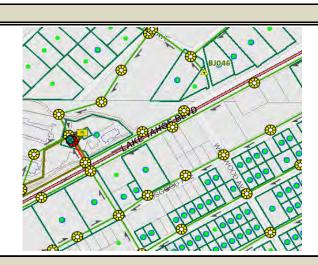
 0.52
 1.73
 3.57
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84
 1.84</td

Total Capital Improvement Cost \$5,815,000

Funding Source: SRF (Pending)

Project Location and Photos





Comments



Project Name: JOHNSON PUMP STATION REHABILIATION

Project Code: 0 **Asset Owner/Dept:** Pumps, Elec

Project Contact: Steve Caswell Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

Based on the STPUD Alt Evaluation by Carollo, there is one high priority project recommended for the Johnson Pump Station which is to install fall protection. There are multiple medium priority recommendations such as installing a new bypass, replacing the pumps, and installing a semi-permanent Godwin pump.

Need for Project	Operation and Maintenance Impacts
Asset Life Extension	Reduced Reactionary Maintenance
Safety	Safety Improvements
High Consequence of Failure	Addition of Assets
Emergency Response	

Reference Document

Big 5 Pump Station Alternatives Evaluation (2018)		CIP No. 46

Project Funding

Capital	Capital Improvement Expenditures (Millions)												
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
			0.19		0.50	1.02					Design	\$185,000	26
			0.19		0.50	1.02					Construction	\$1,520,000	29

Total Capital Improvement Cost \$1,890,000

Funding Source: Capital Project Location and Photos





Comments

Page

46



Project Name: AL TAHOE PUMP STATION REHABILITATION

Project Code: 0 **Asset Owner/Dept:** Pumps, Elec

Project Contact: Steve Caswell Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

Based on the STPUD Alt Evaluation by Carollo, there are multiple high priority rehabilitation projects to address at the Al Tahoe Pump Station. The recommended rehabilitations are replacing the pumps, install Flygt with Multismart; rehabilitate the old wetwell; replace the generator; install fall protection; and replace panels, MCC's, and VFD's.

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	cts
Asset L	ife Exte	ension								Reduc	ed Reactionary	Maintenance	9
Asset F	Replace	ment/E	nd-of-L	ife						Safety	Improvements	5	
High C	High Consequence of Failure												
Reference Document													
Big 5 P	ump St	ation A	lternati	ves Eva	luation	(2018)						CIP No. 47	
Project	t Fundi	ng											
Capita	Impro	vement	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
				0.25		1.34	2.76				Design	\$254,000	27
				0.25		1.54	2.76				Construction	\$4,106,000	30
	Total Capital Improvement Cost										\$4,360,000		

Funding Source: Capital Project Location and Photos





Comments



LPPS TANK COATING AND CATHODIC PROTECTION Project Name:

Project Code: Asset Owner/Dept: LPTNKS Pumps Project Contact: Brent Goligoski Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The project will allow staff to address various deficiencies noted during the 2016 & 2018 interior inspections. These include corrosion in the headspace, and Tank 1 shell requires structural reinforcement, either with steel plate or carbon fiber wrap. This project will also address structural degredation of Tank 2 and associated operational concerns, including replacement of Tank 2 on the existing foundation. The tanks currently use an impressed current cathodic protection system. Both tanks will be switched to a passive cathodic protection system.

Need for Project	Operation and Maintenance Impacts							
Asset Life Extension	Reduced Reactionary Maintenance							
Safety	Safety Improvements							
Water Quality								
High Consequence of Failure								
Reference Document								

19-20 CIP Planning		CIP No. 48

Project Funding

Capital	Impro	vemen	t Expen		Total	Year							
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
1.65											Design	\$211,000	19-20
1.05											Construction	\$2,115,000	21-24
												4	

Total Capital Improvement Cost \$2,326,000

Funding Source: Capital **Project Location and Photos**









Project Name: LPPS FUEL TANK

Project Code: 0 **Asset Owner/Dept:** Pumps, HM

Project Contact: Mark Seelos **Project Management Dept:** Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces the existing 6,000 gallon fuel tank with a new 12,000 gallon fuel tank in the same footprint. Project may require upgrades to the existing retaining wall, and will demolish the unneeded tertiary containment basin under the tank.

Need for Project	Operation and Maintenance Impacts
Emergency Response	Reduced Reactionary Maintenance

Other Environmental Benefit

Reference Document

19-20 CIP Planning		CIP No. 49

Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.11											Design		
0.11											Construction	\$106,000	26
												4	

Total Capital Improvement Cost \$106,000

Funding Source: Capital

Project Location and Photos





Comments

This project is scheduled to construct in coordination with the Al Tahoe Well / Bayview Well Backup Power Project, because the 6,000 gallon tank will be reused on that project.



Project Name: LPPS PUMP EFFICIENCY MONITORING

Project Code: 0 **Asset Owner/Dept:** Pumps, Ops, Elec

Project Contact: Julie Ryan Project Management Dept: Eng

Project Description/ Benefits

Project Status: In Progress

This project will allow staff to install Riventa Freeflow at 4 pump locations. The stations would have their own control panels and would need temperature sensors on the suction/discharge piping. The connection to pump pressure and power consumption data would also be required.

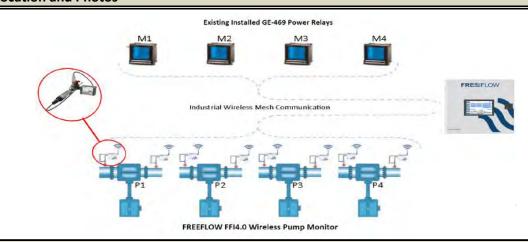
Need for Project	Operation and Maintenance Impacts
Asset Life Extension	Reduced Reactionary Maintenance
System Efficiency	Increased Planned Maintenance
System Monitoring/Remote Control	
Reference Document	
19-20 CIP Planning	CIP No. 50
Bushes Bushes	

Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.01											Design		
0.01											Construction	\$103,000	23

Total Capital Improvement Cost \$103,000

Funding Source: Capital Project Location and Photos



Comments

As of 2023, this project is pending final installation and commissioning, once Pumps 1 and 2 are replaced.



Project Name: LPPS SPARE ELECTRICAL EQUIPMENT

Project Code:0Asset Owner/Dept:ElectricalProject Contact:TBDProject Management Dept:Elec

Project Description/ Benefits

Project Status: 10-yr Plan

This project sets aside funds to purchase in advance three electrical transformers and an automatic transfer switch for this most critical recycled water export station. As of 2024, these electrical equipment are very long lead (2-4 years backlog has been reported) and as of 2029 existing equipment will be 15 years old. While the equipment is expected to have a long life (30-50 years), an unexpected failure would have dire implications for the District. This equipment would be kept "on the shelf" with regular maintenance until it is needed.

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	cts
Asset N	Vlanage	ment								Reduc	ed Reactionary	/ Maintenance	j
	_										-		
Refere	nce Do	cument	;										
24-25	CIP Plar	nning										CIP No.	51
Project	t Fundiı	ng									•		
Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
						0.48					Design		
						0.48					Construction	\$478,000	28
								Tota	al Capit	al Impi	rovement Cost	\$478,000	

Funding Source: Capital Project Location and Photos





Project Name: WET WELL IMPROVEMENTS, COATING, REPAIRS

Project Code:0Asset Owner/Dept:PumpsProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces or coats 7 steel wetwells in 1960s era stations that do not have PS Rehabs within 10 yrs: Taylor Ck, Kiva, Camp Rich, Venice, Trout Ck, San Moritz and Beecher. These stations were outfitted with impressed current cathodic protection in 2012; anodes will be tested and replaced if necessary.

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	cts
Safety										Safety	Improvement	S	
Asset L	ife Exte	ension											
Refere	nce Do	cument	:										
19-20 (CIP Plar	nning										CIP No.	52
Project	t Fundii	ng											
Capita	l Impro	vement	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
	0.10	0.24	0.49								Design	\$103,000	23
	0.10	0.24	0.49								Construction	\$731,000	26
								Tota	al Capit	tal Impi	rovement Cost	\$834,000	

Funding Source: Capital Project Location and Photos



<- Beecher

Pioneer Village ->





Project Name: BELLEVUE PUMP STATION IMPROVEMENTS

Project Code: 0 **Asset Owner/Dept:** Pumps, Elec

Project Contact: TBD Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The pump station site is subject to flooding from proximity to the meadow. This project will allow staff to address the issue of the station floor being too low and to replace the pumps (circa 1960) and electrical equipment.

Need for Project	Operation and Maintenance Impacts
Maintenance History	Reduced Reactionary Maintenance
Asset Replacement/End-of-Life	
Emergency Response	

Reference Document

2009 CSMP	CIP No. 5	3
-----------	-----------	---

Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
	0.24		0.36	0.74							Design	\$239,000	25
	0.24		0.56	0.74							Construction	\$1,092,000	27
								Tota	l Capit	al Impr	ovement Cost	\$1,331,000	

Funding Source: Capital Project Location and Photos





Comments



Project Name: POPE BEACH #1 PUMP STATION IMPROVEMENTS

Project Code: 0 **Asset Owner/Dept:** Pumps, Elec

Project Contact: Megan Colvey Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This steel can pump station which is located in the Pope Beach parking lot and serves only USFS bathrooms, was originally constructed in 1973, and no substantial work has been performed since. After a condition assessment was conducted in February 2024 identifying excessive corrosion of drywell floor/wetwell ceiling and interior piping, emergency repairs are being made to this station in advance of the beach opening in May 2024. The emergency improvements are replacing the existing pumps with submersible pumps, breaking out the floor/ceiling, and relocating all electrical components outside the drywell. A future project will separate the power drop that currently serves both Pope Beach stations, such that both bathrooms must currently be taken out of service to work on either station.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Safety Improvements
Safety	

Reference Document

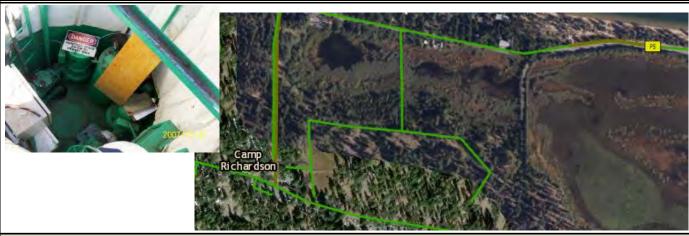
2009 CSMP CIP No. 54

Project Funding

Capital	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year	ĺ
FY24	25	26	27	28	29	30	31	32	33	34	Planning			ĺ
0.05				0.06		0.13	0.26				Design	\$61,000	28	ĺ
0.05				0.06		0.13	0.26				Construction	\$442,000	24 & 30	ĺ

Total Capital Improvement Cost \$503,000

Funding Source: Capital Project Location and Photos



Comments

This project is scheduled to be completed with Pope Beach #2 and the Wetwell Improvements Project for economy of scale.



Project Name: POPE BEACH #2 PUMP STATION IMPROVEMENTS

Project Code: 0 **Asset Owner/Dept:** Pumps, Elec

Project Contact: Megan Colvey Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This steel can pump station which is located in the Pope Beach parking lot and serves only USFS bathrooms, was originally constructed in 1973, and no substantial work has been performed since. After a condition assessmentwas conducted in February 2024 identifying excessive corrosion of drywell floor/wetwell ceiling and interior piping, emergency repairs are being made to this station in advance of the beach opening in May 2024. The emergency improvements are replacing the existing pumps with submersible pumps, breaking out the floor/ceiling, and relocating all electrical components outside the drywell. A future project will separate the power drop that currently serves both Pope Beach stations, such that both bathrooms must currently be taken out of service to work on either station.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Safety Improvements
Safety	

Reference Document

2009 CSMP	CIP No. 55
-----------	------------

Project Funding

Capital	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.05				0.06		0.12	0.25				Design	\$61,000	28
0.05				0.06		0.12	0.25				Construction	\$420,000	24 & 30

Total Capital Improvement Cost \$481,000

Funding Source: Capital Project Location and Photos





Comments

This project is scheduled to be completed with Pope Beach #1 and the Wetwell Improvements Project for economy of scale.



Project Name: BALDWIN BEACH PUMP STATION IMPROVEMENTS

Project Code:0Asset Owner/Dept:PumpsProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This pump station has a deteriorated steel can wetwell and 1968 pumps. This project is expected to replace the wetwell, pumps and electrical gear with a new packaged submersible pump station. The existing building will be refurbished. Price based on pkg pump station upgrades like Taylor Ck. Pumps circa 1968. The design of this project is being funded by the USFS.

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	cts	
Asset F	Asset Replacement/End-of-Life								Reduced Reactionary Maintenance					
System Efficiency S									Safety Improvements					
Safety														
Fundin	g Oppo	rtunity												
Refere	nce Do	cument												
2009 C	SMP											CIP No.	56	
Project	t Fundi	ng									· 			
Capita	l Impro	vement	Expen	ditures	(Millio	ns)						Total	Year	
FY24	25	26	27	28	29	30	31	32	33	34	Planning			
0.06	0.31	0.63									Design	\$57,000	23	
0.00	0.00 0.51 0.05										Construction	\$936,000	25	
								Tota	al Capit	tal Impi	rovement Cost	\$993,000		

Funding Source: USFS Participation Agreement

Project Location and Photos





Comments

This project is scheduled to be constructed in coordination with Baldwin Beach Force Main.



Project Name: TROUT CREEK PUMP STATION IMPROVEMENTS

Project Code: 0 **Asset Owner/Dept:** Pumps, Elec

Project Contact: TBD Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The District condensed the scope of this project to include piping modifications, replacement of electrical gear, replacement of sluice gate, and coat the wetwell. Project cost does not include REPLACEMENT of wetwell, but Pumps is concerned that it might be necessary.

Need for Project	Operation and Maintenance Impacts
Asset Life Extension	Reduced Reactionary Maintenance
Asset Replacement/End-of-Life	

Reference Document

2009 CSMP CIP No. 57

Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year	
FY24	25	26	27	28	29	30	31	32	33	34	Planning			
							0.07		0.29	0.61	Design	\$52,000	29	
							0.07		0.29	0.01	Construction	\$918,000	32	
														1

Total Capital Improvement Cost \$970,000

Funding Source: Capital Project Location and Photos





Comments

Wetwell repairs budgeted under Wetwell Improvements Project.



Project Name: TAYLOR CREEK PUMP STATION IMPROVEMENTS

Project Code: 0 **Asset Owner/Dept:** Pumps, Elec

Project Contact: TBD Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The safety concerns with dry pit submersible are addressed, so this project scope only includes 2nd pump replacement (dry pit submersible or close coupled), pipe coating and electrical upgrades. This project excludes wet well coating improvements. Pricing updated for a downsize to match Tallac, electrical upgrades, plus FM downsize. No wetwell improvements. Alternative scope would include new submersible package with wetwell, new electrical, smaller pumps and FM sliplining.

According to Pumps (CM): One Pump circa 1968; the other circa 2010 (Flygt, dry pit submersible, 7.5hp). Can looks ok.

Need for Project	Operation and Maintenance Impacts
Asset Life Extension	Reduced Reactionary Maintenance
Asset Replacement/End-of-Life	Safety Improvements
Safety	

Reference Document

2009 CSMP		CIP No. 58
· ·		

Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio			Total	Year				
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
						0.07		0.38	0.79		Design	\$60,000	26
						0.07		0.56	0.79		Construction	\$1,045,000	31
										_		4	

Total Capital Improvement Cost \$1,105,000

Funding Source: Capital Project Location and Photos





Comments

Page

58



Project Name: BEECHER PUMP STATION

Project Code:0Asset Owner/Dept:OpsProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This pump station has a failing steel can wetwell, and newer pumps (installed in 2007). The Wetwell coating project will temporarily address the wetwell concerns, until this project to replace the pump station becomes a priority.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance
Reliability/Redundancy	

Reference Document

Prop 218 Planning (2018)			CIP No. 59
	Prop 218 Planning (2018)	Prop 218 Planning (2018)	Prop 218 Planning (2018)

Project Funding

Capita	l Impro	vemen	t Expen	ditures			Total	Year					
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
	0.06											\$64,000	31
	0.06 0.14 0.29										Construction	\$420,000	33
								Tota	al Capit	al Impr	ovement Cost	\$484,000	

Funding Source: Capital Project Location and Photos







Project Name: FLL ES 1-3 & STANFORD CAMP REHAB

Project Code: STFDEG Asset Owner/Dept: Pumps Project Contact: Trevor Coolidge Project Management Dept: Eng

Project Description/ Benefits

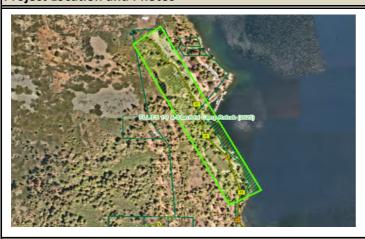
Project Status: 10-yr Plan

This project was originally scoped to rehabilitate 3 wetwells, replace pumps and motors, and make upgrades to electrical systems at these three stations that serve the Stanford Camp. However, after the Stanford Camp E&G Building was destroyed by an avalanche in March 2023, the scope of the project expanded significantly, and opened opportunities for outside funding from FEMA. In 2023-24, the E&G Building is being relocated out of the slide path. The following effort will be focused on the wetwells, pumps and electrical at FL1-3.

Need f	or Proj	ect			Opera	Operation and Maintenance Impacts							
Asset Replacement/End-of-Life R									ed Reactionary				
Refere	nce Do	cumen	t							•			
22-23 (CIP Plar	nning										CIP No.	60
Project	t Fundi	ng											
Capita	l Impro	vemen	t Exper	diture	s (Millio	ons)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.05 0.75 0.07 0.45											Design	\$54,000	23
0.05	0.75	0.07	0.15			Construction	\$975,000	23-26					
								Tota	al Cani	tal Imn	rovement Cost	\$1,029,000	

Total Capital Improvement Cost | \$1,02

Funding Source: Capital **Project Location and Photos**





Comments

Wetwell repairs budgeted under Wetwell Improvements Project in 2025.



Operation and Maintenance Impacts

Construction \$159,000

Design

Project Name: WWTP MASTER PLAN (UG PIPING IMPROVEMENTS)

Project Code: WWTPMP **Asset Owner/Dept:** Ops, Elec, HM

Project Contact: Julie Ryan Project Management Dept: Eng

Project Description/ Benefits

Need for Project

0.16

Project Status: 10-yr Plan

This project installs access points on underground piping within the WWTP to allow for inspection, based on the results of the underground piping program plan developed in 2021.

Asset Management										Increase Planned Maintenance			
Reference Document													
19-20 CIP Planning											CIP No. 61		
Project Funding													
Capital	Impro	vemen	t Expen	ditures			Total	Year					
FY24	25	26	27	28	29	30	31	32	33	34	Planning		

Total Capital Improvement Cost \$159,000

Funding Source: Capital Project Location and Photos



Comments

NA



Project Name: **SECONDARY CLARIFIER 1 REHAB**

Project Code: SC1RHB **Asset Owner/Dept:** Ops, HM **Project Contact: Project Management Dept: Eng** Steve Caswell

Project Description/ Benefits

Project Status: 10-yr Plan

This project repairs or replaces the mechanism and drives, which have been in service since the late 1960's. It also repairs the concrete basin, addresses seismic stability, and considers process improvements.

Need for Project	Operation and Maintenance Impacts
Asset Life Extension	Reduced Reactionary Maintenance
High Consequence of Failure	
Maintenance History	
Reliability/Redundancy	
Reference Document	

HDR Condition Assessment (2013) CIP No. 63

Project Funding

Capital	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.38	1.43										Design	\$30,000	21
0.56	1.45										Construction	\$2,765,000	24
												40 707 000	

Total Capital Improvement Cost \$2,795,000

Funding Source: SRF (Pending)

Project Location and Photos





Project Name: SECONDARY CLARIFIER 2 REHAB

Project Code:SC2RHBAsset Owner/Dept:Ops, HMProject Contact:Steve CaswellProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project repairs or replaces the mechanism and drives, which have been in service since the late 1960's. It also repairs the concrete basin, addresses seismic stability, and considers process improvements.

Need for Project	Operation and Maintenance Impacts
Asset Life Extension	Reduced Reactionary Maintenance
High Consequence of Failure	
Maintenance History	
Reliability/Redundancy	
Reference Document	

Reference Document

HDR Condition Assessment (2013) CIP No. 64

Project Funding

Capital	pital Improvement Expenditures (Millions)											Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
1.35											Design	\$30,000	21
1.55											Construction	\$2,685,000	23
												62 74 F 000	

Total Capital Improvement Cost \$2,715,000

Funding Source: SRF (Pending); FEMA (pending)

Project Location and Photos



Comments

64



Project Name: PLANT PAVING (CENTER ROAD)

Project Code:0Asset Owner/Dept:HMProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project will address the failing and deteriorating pavement in the plant and will also address the poor drainage sites. The proposed project area for this improvement is the center access road between the Aeration Basins and Secondary Clarifiers. This project will be completed after the secondary clarifier project and before lower shops.

Need for Project	Operation and Maintenance Impacts
Asset Life Extension	Reduced Reactionary Maintenance
Safety	Safety Improvements
Other Environmental Benefit	

Reference Document

CIP No. 66

Project Funding

Capital	pital Improvement Expenditures (Millions)											Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
				0.13	0.27						Design	\$25,000	24
				0.13	0.27						Construction	\$375,000	28
												Ć400 000	

Total Capital Improvement Cost \$400,000

Funding Source: SRF (Tentative)
Project Location and Photos



Comments

This project is scheduled to occur in conjunction with the RAS project.



Project Name: LOWER, FOUNTAIN SHOPS IMPROVEMENTS

Project Code: SHOPMP Asset Owner/Dept: All Ops **Project Management Dept: Eng Project Contact:** Trevor Coolidge

Project Description/ Benefits

10-yr Plan **Project Status:**

This project implements the recommendations for rehabilitation and/or replacement of the Lower Shops and Fountain Shops, coming out of the Shop Facilities Master Plan. This project will address structural stability and workplace safety concerns, and will modernize shops and garages. This project may also address administrative office space needs.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Addition of Assets
Safety	Safety Improvements
Regulatory Mandate	
Reference Document	
10-20 CIP Planning	CID No. 67

	-	-	_	-	_	-	_	-	_	
1	α_'	วก	CI	D	DI-	a r	٠.	ain	σ.	

19-20 CIP Planning		CIP No. 67

Project Funding

Capital	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
			0.36			0.89	1.43	1.47	0.76		Design	\$359,000	26
			0.56			0.69	1.43	1.47	0.76		Construction	\$4,546,000	30-32

Total Capital Improvement Cost \$4,905,000

Funding Source: Capital **Project Location and Photos**



<- Fountain Shops

> Lower Shops ->



Comments

This project is scheduled to occur after all major process improvements currently in progress (Secondary Clarifiers, Blowers, RAS and Holding Ponds) are complete.

Page

67



Project Name: BLOWER, CHLORINE, EMPS SHINGLE REMOVAL

Project Code:0Asset Owner/Dept:HMProject Contact:Trevor CoolidgeProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The need for this project became pronounced during the Caldor Fire, when Calfire representatives toured the WWTP. This project removes the wood architectural treatment of three buildings at the WWTP that do not otherwise have structural improvements in the works, and replaces it with a fire-safe alternative.

Need f	for Proj	ect								Opera	tion and Maint	tenance Impa	cts
Safety	afety							Reduc	Reduced Reactionary Maintenance				
Emerg	Emergency Response							Reduc	Reduced Planned Maintenance				
1							Improvements	i					
Refere	nce Do	cumen	t							•			
22-23	CIP Plar	nning										CIP No. 68	
Projec	t Fundi	ng											
Capita	l Impro	vemen	t Exper	diture	s (Millio	ons)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
						0.10	0.20				Design		
	0.19 0.20 Construction										\$387,000	30	
	-					-		Tota	al Capi	tal Imp	rovement Cost	\$387,000	

Funding Source: Capital Project Location and Photos





Comments

Scheduled to construct with Lower Shops Project.

Page

68



Project Name: WWTP BALLAST PONDS

Project Code:0Asset Owner/Dept:Ops, HMProject Contact:Trevor CoolidgeProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project will replace, repair, and/or rehabilitate the concrete in the ballast ponds. Considerations include addition of safety rail, replacement of all joint sealant with an appropriate material and recoating all carbon steel pipelines. Updates will prevent rocks and grit being pumped to LPPS and increase lifespan of pumps. Project will also give consideration to underground tanks with increased volume to improve process efficiencies, reduce maintenance, and optimize plant space. Due to accelerated decline in condition over the 2022-23 season, temporary repairs to the center berm, spall removal and crack sealing are being performed in May 2024. A more complete repair or replacement will then immediately be designed in advance of the RAS project.

Need for Project	Operation and Maintenance Impacts
System Efficiency	Reduced Reactionary Maintenance
Asset Life Extension	Safety Improvements
Safety	

Reference Document

19-20 CIP Planning		CIP No. 69

Project Funding

Capita	l Impro	vement	t Expen			Total	Year						
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.12	0.16	0.63	1.27								Design	\$164,000	25
0.12	0.16	0.62	1.27								Construction	\$1,882,000	24 & 26

Total Capital Improvement Cost \$2,046,000

Funding Source: Capital Project Location and Photos



<- Ballast Pond #1

Ballast Pond #2 ->



Comments

This project is scheduled to be constructed in conjunction with the Lower Shops Improvements.



Project Name: BLOWER SYSTEM IMPROVEMENTS

Project Code: BLOSYS Asset Owner/Dept: Ops, Elec, HM

Project Contact: Brent Goligoski Project Management Dept: Eng

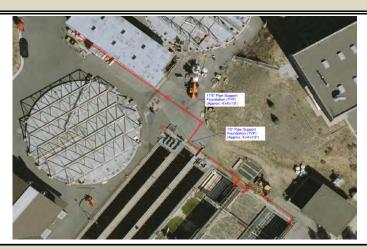
Project Description/ Benefits

Project Status: 10-yr Plan

Jockey blower to replace diesel blower. Efficiency upgrades and address pipe leaks. Blowers, controls, control valves for zone control - pipe leaks TBD. Pipe leaks are odorous air. Current estimate includes blower, controls, amd electrical upgrades. Estimated costs for one blower and electrical upgrades total \$1,581,000.

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	cts	
Asset L	ife Exte	ension								Addition of Assets				
Asset F	Replace	ment/E	nd-of-L	ife										
System	n Monit	oring/R	emote	Contro	I									
System	n Efficie	ncy												
Refere	Reference Document													
19-20	CIP Plar	ning										CIP No.	70	
Project	t Fundiı	ng												
Capita	l Impro	vement	t Expen	ditures	(Millio	ns)						Total	Year	
FY24	25	26	27	28	29	30	31	32	33	34	Planning	\$200,000	21-23	
1.21	1.08	1.12	1.15								Design	\$258,000	21	
1.21	1.08	1.12	1.13								Construction	\$4,334,000	25-26	
	Total Capital Improvement Cost \$4,792,000													

Funding Source: Capital Project Location and Photos



Comments

Project is scheduled to be constructed with WWTP Fire Alarm System Standardization and WWTP Electrical Submetering for economy of scale.



Project Name: AIR HEADER REPLACEMENT

Project Code:0Asset Owner/Dept:OpsProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project as currently scoped replaces the existing buried thin-wall stainless steel pipe that feeds the aeration basins with process air. This pipe is known to be riddled with holes, resulting in a 50% increase in energy consumption for the aeration process, and putting the District at risk for air emissions violations. The new piping would be stainless steel in a hybrid (buried/above-ground) configuration. Staff is seeking to refine the project description to reduce cost, before proceeding with design.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	
System Efficiency	
Other Environmental Benefit	

Reference Document

20-21 CIP Planning		CIP No. 71

Project Funding

Capital	l Impro	vemen	t Expen			Total	Year						
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
					0.25	1.63	3.35				Design	\$266,000	
					0.25	1.03	5.55				Construction	\$4,960,000	30

Total Capital Improvement Cost \$5,226,000

Funding Source: TBD
Project Location and Photos





Project Name: FILTERS 1,2 REHAB

Project Code:FLTR12Asset Owner/Dept:Ops, HMProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The District's filters were evaluated and a staged approach to rehabilitation was adopted. Filters 5 and 6 were replaced in 2010. Filters 1 and 2 represent the last two filters to be rehabilitated. Rehabilitation includes repairing failed surface wash piping, removal and replacement of media and underdrain system, recoating interior, replace the anodes and replace interior supply header. External Mechanical piping, valves, and controls replaced in 2010.

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	cts
Asset L	ife Exte	ension											
Water	Quality	,											
Reference Document													
	CIP Plar									l	Τ	CIP No.	72
											Ļ	CIP NO.	12
	t Fundii												
Capita	l Impro	vement	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
					1.23						Design	\$20,000	
					1.23						Construction	\$1,210,000	30
	Total Capital Improvement Cost											\$1,230,000	

Funding Source: Capital Project Location and Photos





Project Name: MIXED LIQUOR SPLITTER BOX; GATES, WEIR, COATINGS

Project Code:CONCTPAsset Owner/Dept:Ops, HMProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

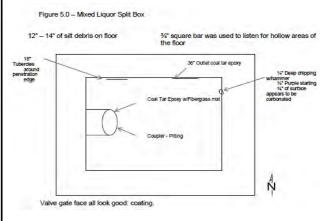
Project Status: 10-yr Plan

The Mixed Liquor Splitter Box is a critical piece of the treatment plant that is in need of rehabilitation to extend its life. The concrete will be rehabilitated and a coating added. The metal gates and weirs are corroded and need to be replaced. This project will be constructed with the Emergency Pump Station Concrete Rehab, AB Splitter Box, and Primary Effluent Splitter Box.

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	icts	
High Co	onsequ	ence of	Failure	?						Reduced Reactionary Maintenance				
Asset L	ife Exte	ension												
Refere	Reference Document													
		n Asses		2013)						T	T	CIP No.	73	
	t Fundi		Jillelle (2013)						<u> </u>	ļ	Cii ivo.	73	
		vemen	t Expen	ditures	(Millio	ns)						Total	Year	
FY24	25	26	27	28	29	30	31	32	33	34	Planning			
0.07			0.44	0.20							Design	\$73,000	23	
0.07			0.14	0.28							Construction	¢419.000	27	

Funding Source: SRF (Tentative)

Project Location and Photos





Total Capital Improvement Cost \$491,000

Construction \$418,000

Comments

This project is scheduled to construct with RAS Rehab.

27



Project Name: EMERGENCY PS IMPROVEMENTS, CONC REHAB

Project Code:CONCTPAsset Owner/Dept:Ops, HMProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project will include coating the exterior walls of the sump and the floor. This project will be constructed with the Mixed Liquor Splitter Box, AB Splitter Box, and Primary Effluent Splitter Box.

Need for Project	Operation and Maintenance Impacts
Asset Life Extension	

Asset Life Extension

Reference Document

HDR Condition Assessment (2013)			CIP No. 74
---------------------------------	--	--	------------

Project Funding

Capita	l Impro	vemen	t Expen	ditures			Total	Year					
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.05			0.07	0.14							Design	\$52,000	23
0.05			0.07	0.14							Construction	\$202,000	27

Total Capital Improvement Cost \$254,000

Funding Source: SRF (Tentative)

Project Location and Photos



Figure 20 Emergency Pump Station - Horizontal crack of the vertical walls in the sump pit. Crack spans all 4 walls.



Comments

This project is scheduled to be constructed with the Mixed Liquor, AB Splitter Box and Primary Effluent Splitter Box.

Page

74



Project Name: AB SPLITTER BOX

Project Code:CONCTPAsset Owner/Dept:Ops, HMProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The inspection performed in 2013 determined that the splitter box should have the concrete coated with flexible 100% solid polyurethane. The floors still need to be inspected since they were covered during the inspection. All the pipes will be recoated with a chemical resistant epoxy material. This project will be constructed with the Mixed Liquor Splitter Box, Emergency Pump Station Concrete Rehab, and Primary Effluent Splitter Box.

Need for Project Operation and Maintenance Impacts

High Consequence of Failure

Asset Life Extension

Reference Document

HDR Condition Assessment (2013)		CIP No. 75
---------------------------------	--	------------

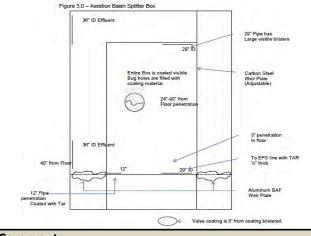
Project Funding

Capita	l Impro	vemen	t Expen		Total	Year							
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.05			0.06	0.11							Design	\$52,000	23
0.05			0.06	0.11							Construction	\$169,000	27

Total Capital Improvement Cost |\$221,000

Funding Source: SRF (Tentative)

Project Location and Photos





Comments

This project is scheduled to construct with RAS Rehab.



Project Name: PRIMARY EFFLUENT JUNCTION BOX

Project Code:CONCTPAsset Owner/Dept:Ops, HMProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project is based out of the 2013 Concrete and Coating Evaluation to where the entire primary effluent splitter box will have new concrete and fresh coatings. This project will be constructed with the Mixed Liquor Splitter Box, Emergency Pump Station Concrete Rehab, and AB Splitter Box.

Need for Project	Operation and Maintenance Impacts

High Consequence of Failure

Asset Life Extension

Reference Document

HDR Condition Assessment (2013)		CIP No. 76
---------------------------------	--	------------

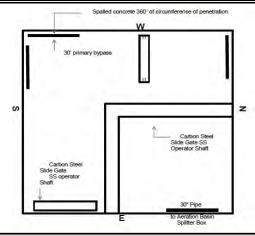
Project Funding

Capita	l Impro	vement	t Expen		Total	Year							
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.05			0.02	0.07							Design	\$52,000	23
0.05			0.03	0.07							Construction	\$101,000	27

Total Capital Improvement Cost \$153,000

Funding Source: SRF (Tentative)

Project Location and Photos





Comments

This project is scheduled to construct with RAS Rehab.



Project Name: RAS BUILDING REHABILITATION (3)

Project Code: RASRHB Asset Owner/Dept: Ops, Elec, HM

Project Contact: Megan Colvey Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project will focus on upgrading the structural and electrical system in the RAS building only. If a full RAS Building replacement is required, additional budget will be needed.

Need for Project	Operation and Maintenance Impacts
High Consequence of Failure	Safety Improvements
Asset Life Extension	Reduced Reactionary Maintenance
Safety	

Refer	ence Do	cumen	t										
Prop	Prop 218 Planning (2018)												77
Proje	ct Fundi	ng											
Capit	Capital Improvement Expenditures (Millions)												Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		

ı	Capita	i iiiipio	veilleli	t Expen		Total	rear							
	FY24	25	26	27	28	29	30	31	32	33	34	Planning		
	0.16	0.47		1.31	4.04	2.78						Design	\$634,000	23
	0.10	0.47		1.51	4.04	2.70						Construction	\$8,124,000	27
1														

Total Capital Improvement Cost \$8,758,000

Funding Source: SRF (Tentative)

Project Location and Photos



Comments

This project is scheduled to construct after the Secondary Clarifiers, Holding Ponds, and Blower System Improvements, but before the Lower Shops.



PLANT ELECTRICAL UPGRADES Project Name:

Project Code: Asset Owner/Dept: Elec, Ops **Project Contact:** Brent Goligoski Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

An Asset Management approach accounts for replacement of 1/3 of WWTP electrical gear every 10 years. Based on results of electrical testing performed 2022, this project will replace gear at the Filter Building and Emergency PS.

Need for Project											Operation and Maintenance Impacts				
High Consequence of Failure										Reduced Reactionary Maintenance					
Asset Replacement/End-of-Life									Safety Improvements						
Asset Management															
Safety															
Reference Document															
Prop 2	18 Plan	ning (20	018)									CIP No.	78		
Project	t Fundii	ng													
Capital Improvement Expenditures (Millions)												Total	Year		
FY24	25	26	27	28	29	30	31	32	33	34	Planning				
0.11	0.22	0.45	0.24						0.25		Design	\$110,000	23		
0.11	0.32	0.45	0.34						0.25		la	44 040 000			

Total Capital Improvement Cost \$1,459,000 **Funding Source:** Capital

Project Location and Photos





Construction

\$1,349,000

25-26,33

Comments

The first phase of this project is scheduled to construct with Blower System Improvements.



Project Name: FILTERS 3,4 REHAB

Project Code:FLTR34Asset Owner/Dept:Ops, HMProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The District's filters were evaluated and a staged approach to rehabilitation was adopted. Filters 5 and 6 were replaced in 2010. Filters 3 and 4 will be next. Rehabilitation includes repairing failed surface wash piping, removal and replacement of media and underdrain system, recoating interior, replace the anodes and replace interior supply header. External Mechanical piping, valves, and controls replaced in 2010.

Need for Project										Operation and Maintenance Impacts					
Asset Life Extension															
Water Quality															
Reference Document															
19-20 CII	P Plan	ning										CIP No.	79		
Project F	Fundin	g													
Capital Improvement Expenditures (Millions)										•		Total	Year		
FY24	25	26	27	28	29	30	31	32	33	34	Planning				

0.88 Construction \$840,000

Total Capital Improvement Cost \$883,000

Design

\$43,000

24

Funding Source: Capital Project Location and Photos





Project Name: BIO BUILDING ODOR CONTROL & HVAC UPGRADES

Project Code:0Asset Owner/Dept:HMProject Contact:Brent GoligoskiProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project addresses odor control concerns associated with the solids handling operation by improving dispersion with a strobic fan based, as recommended in 2009 odor modeling. Fan install will likely require roof improvements/modifications as well as improvements to the HVAC system, including replacement of the cicra 2004 HVAC control system, which is obsolete.

Need for Project											Operation and Maintenance Impacts					
Reliability/Redundancy										Reduced Reactionary Maintenance						
Other Environmental Benefit										Increased Planned Maintenance						
System Monitoring/Remote Control																
Refere	Reference Document															
20-21	CIP Plar	ning										CIP No.	80			
Projec	t Fundiı	ng														
Capita	l Impro	vement	Expen	ditures	(Millio	ns)						Total	Year			
FY24	25	26	27	28	29	30	31	32	33	34	Planning					
0.01	0.22	0.46									Design	\$50,000	24			

Total Capital Improvement Cost \$690,000

Funding Source: Capital Project Location and Photos



Comments

Project is scheduled to construct with Blower System Improvements for economy of scale.

Construction \$640,000

25



Project Name: PLANT PAVING (SOUTH ROAD)

Project Code: RASRHB Asset Owner/Dept: Ops, Elec, HM

Project Contact: Megan Colvey Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The south road will be repayed from the South Gate to the Lower Shops Parking Area. Improvements to the south gate and loops will be considered.

Need for Project	Operation and Maintenance Impacts
Asset Life Extension	Reduced Reactionary Maintenance
Safety	Safety Improvements
Other Environmental Benefit	

Ľ	Reference Document		
Ī	Prop 218 Planning (2018)		CIP No. 81

Project Funding

Capita	l Impro	vement	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
		Design											
		0.15	0.31								Construction	\$461,000	26
	-					-	-	Tota	l Capit	al Impr	ovement Cost	\$461,000	-

Funding Source: SRF (Tentative)

Project Location and Photos



Comments

This project is scheduled to occur in conjunction with the RAS Rehab Project.



PLANT PAVING (NORTH ROAD) Project Name:

Project Code: Asset Owner/Dept: 0 НМ **TBD Project Management Dept: Eng Project Contact:**

Project Description/ Benefits

Project Status: 10-yr Plan

This project repaves the pavement from the West Gate to the Bio Building, along the north perimeter of the WWTP. This project will also consider installation of a valve on the 30" ERB line, at request of Operations.

Need for Project	Operation and Maintenance Impacts
Asset Life Extension	Reduced Reactionary Maintenance
Safety	Safety Improvements
Other Environmental Benefit	

Reference Document

	Prop 218 Planning (2018)				CIP No. 82
--	--------------------------	--	--	--	------------

Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
							0.14	0.29			Design	\$20,500	
							0.14	0.29			Construction	\$416,500	31

Total Capital Improvement Cost \$437,000

Funding Source: Capital **Project Location and Photos**





Project Name: ERB LINER AND VALVE REPLACEMENT

Project Code:0Asset Owner/Dept:Ops, HMProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The ERB Liner and Valves were last replaced in 2011, and the liner is expected to have a 20-year life. This project replaces the geotextile cushion and double-sided geomembrane liner. After testing and inspection, the project will also replace the knife gate valves, if needed. Other appurtenance upgrades (such as to the washdown system) have been discussed, but are not included in the budget estimate, which is based on 2011 cost-of-construction

Need f	or Proj	ect			Operation and Maintenance Impacts								
Asset F	Replace	ment/E	nd-of-I	_ife	Reduced Reactionary Maintenance								
Regula	tory M	andate											
Emerg	ency Re	esponse	è										
Refere	Reference Document												
22-23	CIP Plar	nning										CIP No.	83
Projec	t Fundi	ng											
Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
						Design	\$92,000	29					
						Construction	\$1,429,000	31					
								Tota	al Capit	tal Imp	rovement Cost	\$1,521,000	

Funding Source: Capital

Project Location and Photos





Comments



Project Name: WWTP FIRE ALARM SYSTEM STANDARDIZATION

Project Code: 0 **Asset Owner/Dept:** Ops, Elec, HM

Project Contact: Brent Goligoski Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

Three different fire alarm systems were installed for each of the last 3 major projects at the WWTP (Admin/Ops, 2018 Emergency Generator, and Headworks). Pre-qualify these three to bid on upgrading the older fire systems at the WWTP (Filters, Small Generator, Hypo, Bio and Blowers. [The same manufacturer will then be named for the Lower Shops Project.]

Need for Project	Operation and Maintenance Impacts
Reliability/Redundancy	Reduced Reactionary Maintenance
Asset Life Extension	
Safety	
Reference Document	
19-20 CIP Planning	CIP No. 84
Project Funding	

Capita	l Impro	vement	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
	0.09	0.18									Design	\$25,000	24
	0.09	0.18									Construction	\$244,000	25
								Tota	l Capit	al Impr	ovement Cost	\$269,000	

Funding Source: Capital Project Location and Photos



Comments

Project is scheduled to be constructed with WWTP Electrical Submetering and Blower System Improvements for economy of scale.



Project Name: BONEYARD IMPROVEMENTS PROJECT

Project Code:0Asset Owner/Dept:URWProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project installs BMP improvements to address soil tracking and runoff concerns from the contractor staging area and clean water camel dump at the Wastewater Treatment Plant, and expands staging to accommodate the increased project load reflected in the 2024-25 CIP. The completion of this project is expected to be a stipulation of any future project permits approved by TRPA.

Need for Project Operation and Mainte													cts	
Regula	itory M													
Other	Environ													
Refere	nce Do	cumen												
	CIP Plar		2	Π	I	CIP No.	85							
	t Fundi													
Capita	l Impro	vemen	t Exper	ditures	(Millio	ons)						Total	Year	
FY24	25	26	27	28	29	30	31	32	33	34	Planning			
				0.22	0.23						Design	\$10,000	25	
				0.23	0.23						Construction	\$458,000	28	
								Tota	al Capi	tal Imp	rovement Cost	\$468,000		

Funding Source: Capital Project Location and Photos





Project Name: FILTER BUILDING STRUCTURAL REPAIRS

Project Code:0Asset Owner/Dept:HMProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project repairs structural deficiencies at the Filter Building, as identified in the 2023 Structural Evaluation prepared as part of the Wastewater Treatment Plant master planning effort. With these improvements, the building is expected to provide another 30 years of service life, for a 100-year total life.

Need f	or Proj	ect								Opera	tion and Maint	tenance Impa	cts
Asset I	ife Exte	ension											
Safety													
Refere	nce Do	cumen	t										
24-25	CIP Plar	nning					CIP No.	86					
Projec	t Fundi	ng											
Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
					0.45	Design	\$50,000	32					
									0.22	0.45	Construction	\$616,000	33
								Tot	al Capit	tal Imp	rovement Cost	\$666,000	

Funding Source: Capital Project Location and Photos



Comments



Project Name: CHLORINE BUILDING ROOF REPLACEMENT

Project Code:0Asset Owner/Dept:HMProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces the roof of the building at the WWTP that was previously used for chlorine storage. This building has been repurposed as on-site file storage and the District's paper archive. The structure was built in 1980 and the roof has never been replaced.

Need f	or Proj	tion and Maint	tenance Impa	cts									
Asset L	ife Exte	ension											
Safety													
Refere	nce Do	cumen	t										
24-25	CIP Plar	nning					CIP No.	87					
Project	t Fundi	ng											
Capita	l Impro	vemen	t Exper	diture	s (Millio	ons)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
					0.14	Design	\$20,000	32					
					0.14	Construction	\$181,000	33					
								Tot	al Capit	tal Imp	rovement Cost	\$201,000	

Funding Source: Capital Project Location and Photos



Comments



Project Name: TANKS ASSET MANAGEMENT PROGRAM

Project Code: TNKSWR Asset Owner/Dept: Ops, Pumps

Project Contact: Julie Ryan Project Management Dept: Pumps HM

Project Description/ Benefits

Project Status: 10-yr Plan

This project implements an ongoing water and sewer tank management program, including dry inspections/repairs on a five-year cycle. Program will be deployed by HM/Pumps with support from Engineering to hire contractors for more substantial repairs (ie., coating touchup in headspace).

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	cts
Asset L	ife Exte	ension								Increa	sed Planned M	aintenance	
Asset N	Manage	ment											
Refere	nce Do	cument	t										
Prop 2	18 Plan	ning (20	018)									CIP No.	88
Project	t Fundi	ng											
Capita	l Impro	vement	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
			0.08	0.14		Design							
			0.08	0.14		0.15					Construction	\$378,000	ALL
	•				•			Tota	al Capit	al Impi	rovement Cost	\$378,000	

Funding Source: TBD
Project Location and Photos



From Left to Right: LPPS Tank #1, LPPS Tank #2, Backwater Tank, Solids Tank

Comments

Funds will be transferred to Pumps and HM for implementation.



Project Name: WWTP ELECTRICAL SUBMETERING

Project Code:0Asset Owner/Dept:OpsProject Contact:Brent GoligoskiProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project installs or replaces power meters on major processes within the WWTP (such as Final/Secondary Pumps, Bio Building, etc), which have no larger projects included in the Ten-Year Plan, and brings pertinent information from all sub-meters into SCADA and the Historian for reporting.

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	cts
Asset F	Replace	ment/E	nd-of-L	ife						Reduc	ed Reactionary	Maintenance	j
Reliabi	lity/Red	dundan	су										
Refere	nce Do	cument	•										
		ning (20								Π	I	CIP No.	89
	t Fundi									<u>ļ</u>		<u> </u>	
Capita	l Impro	vement	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.04	0.04 0.08 0.08										Design		
0.04	0.08	0.08						Construction	\$197,000	24			
						al Impi	rovement Cost	\$197,000					

Funding Source: Capital Project Location and Photos



Comments

Project is scheduled to be constructed with Blower System Improvements for economy of scale.



Project Name: OPS AND SERVER ROOM HVAC UPGRADES

Project Code:0Asset Owner/Dept:HMProject Contact:Trevor CoolidgeProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project corrects a known issue with the Ops Buildin HVAC system, which is located above the SCADA Server Room and requires a water connection. A prior incident with the HVAC resulted in a flood in the Server Room. The scope of the project is to relocate the rooftop HVAC system, and to provide ventilation protection systems within the Server Room.

Need f	or Proj	ect								Opera	tion and Main	tenance Impa	cts
Safety										Reduc	ed Reactionary	Maintenance)
Reliabi	lity/Red	dundan	су										
Refere	nce Do	cument	t										
20-21 (CIP Plar	nning										CIP No.	90
Project	t Fundi	ng											
Capita	l Impro	vement	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.10											Design		
0.10											Construction	\$103,000	24
	-							Tota	al Capit	al Impi	ovement Cost	\$103,000	

Funding Source: Capital Project Location and Photos



Comments

Project is scheduled to construct with the Admin HVAC and the Bio Building HVAC for economy of scale.



Project Name: SCADA HISTORIAN UPGRADES

Project Code:SCDCOMAsset Owner/Dept:Elec, ITProject Contact:Julie RyanProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project develops and implements improvements to various aspects of the District's SCADA System, up to and including migration to a new historian, standardization of tag names, implementing SCADA Access Anywhere, set up of Tier 3 Historian, automation of RAS Control, developing a High-Pressure Interlock for the WWTP Filters, electronic logbook for Ops, WWTP HVAC controls into SCADA and As-Needed Support for WX Eth Network.

Need f	for Proj	ect								Opera	tion and Maint	tenance Impa	cts
System	n Monit	oring/F	Remote	Contro	ol .					Impro	ved Alarming/D	ata Collection	1
Refere	nce Do	cumen	t			Į							
22-23	CIP Plar	nning										CIP No.	91
Projec	t Fundi	ng											
Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.21	0.21 0.10										Design		
0.21	0.10										Construction	\$410,000	23-25
	Total Cap										apital Improvement Cost \$410,000		

Funding Source: Capital

Project Location and Photos



Comments



Project Name: ENGINEERING OFFICES UPGRADES

Project Code:0Asset Owner/Dept:HMProject Contact:Julie RyanProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project funds remodeling efforts to expand the capacity of the engineering area of the Administration Building by splitting large offices (2) into multiple spaces, building out cubes, and replacing the mobile office space that was purchased in the 1990s and has reached the end of its useful life.

Need f	or Proj	ect								Opera	tion and Maint	tenance Impa	cts
Capaci	ty/Hyd	raulic D	eficien	cies						Increa	sed Planned M	aintenance	
										Reduc	ed Reactionary	Maintenance	•
	nce Do	cumen	t								ı	CIP No.	93
Projec												CII IVO.	
Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
0.23	0.22										Design		
0.23	23										Construction	\$234,824	22-24
	-	-	-	-	-	-	-	Tota	al Capi	tal Imp	rovement Cost	\$234,824	-

Funding Source: Capital Project Location and Photos





Project Name: WWTP SOLAR

Project Code: SOLRTP Asset Owner/Dept: Ops, Elec, HM

Project Contact: Julie Ryan Project Management Dept: Eng

Project Description/ Benefits

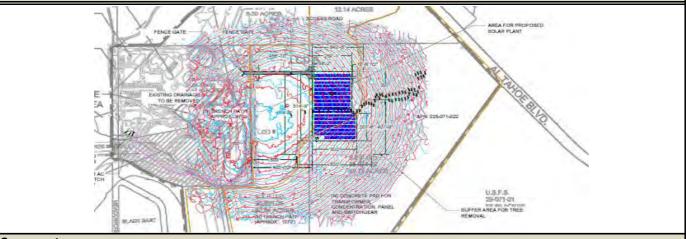
Project Status: 10-yr Plan

This project provides a budget for purchase of the 1MW WWTP solar array at the first legal opportunity at end of Year 7 following startup of the system under a Power Purchase Agreement in 2024. The array is scheduled for construction in 2023.

Need 1	or Proj	ect								Opera	tion and Maint	tenance Impa	cts
Systen	n Efficie	ency								Increa	sed Planned M	aintenance	
Refere	nce Do	cumen	t										
22-23	CIP Plar	nning										CIP No.	94
Projec	t Fundi	ng											
Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
								Design					
								Construction	\$3,083,000	32			
								Tota	al Capi	tal Imp	rovement Cost	\$3,083,000	-

Funding Source: Capital

Project Location and Photos



Comments



Project Name: CENTRIFUGE #1 REPLACEMENT

Project Code:0Asset Owner/Dept:Ops, HMProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project includes the replacement of the centrifuges in the Bio Building, which are used for solids handling in the wastewater treatment process. Centrifuges were installed in 2002 and are expected to have a 25- to 33-yr life. Alternatives will be considered for solids handling during the planning and design phase.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance
Reliability/Redundancy	

Refere	nce Do	cumen	t										
Prop 2	18 Plan	ning (2	018)									CIP No.	95
Project	t Fundi	ng											
Capita	Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
			0.06		0.66						Design	\$57,000	27
			0.06		0.66		l	I	I	I	۱۵۰	4555 555	

Total Capital Improvement Cost \$717,000

Construction \$660,000

Funding Source: TBD
Project Location and Photos





Comments

29



Project Name: CENTRIFUGE #2 REPLACEMENT

Project Code:0Asset Owner/Dept:Ops, HMProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project includes the replacement of the centrifuges in the Bio Building, which are used for solids handling in the wastewater treatment process. Centrifuges were installed in 2002 and are expected to have a 25- to 33-yr life. Alternatives will be considered for solids handling during the planning and design phase.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance
Reliability/Redundancy	

Reference Document			
Prop 218 Planning (2018)		CIP No.	96
Project Funding			
Capital Improvement Expenditures (Millions)		Total	Year

Capita	l Impro	vement	t Expen	ditures	(Millio	ns)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
			0.06						0.74		Design	\$57,000	29
			0.06						0.74		Construction	\$742,000	33

Total Capital Improvement Cost \$799,000

Funding Source: TBD
Project Location and Photos





Comments



Project Name: MAINTENANCE BAY EXPANSION

Project Code:0Asset Owner/Dept:HMProject Contact:Julie RyanProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project ends one bay of the vehicle maintenance shop to accommodate the new larger size fleet vehicles. This will allow maintenance to be performed with the roll-up doors closed, which is especially important for worker safety during the winter months.

Nood f	or Proj	oct								Opera	tion and Maint	tonanco Imna	ctc
										Opera	tion and ivialin	lenance impa	CLS
Asset I	ife Exte	ension											
Safety													
′													
Refere	nce Do	cumen	t							•			
24-25	CIP Plar	nning										CIP No.	97
Projec	t Fundi	ng											
Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)						Total	Year
FY24	25	26	27	28	29	30	31	32	33	34	Planning		
	0.40										Design	\$20,000	24
	0.19										Construction	\$169,000	24
		<u> </u>						Tota	al Capi	tal Imp	rovement Cost	\$189,000	•

Funding Source: Capital

Project Location and Photos



Comments



Project Name: REPLACE NUKE GAUGE

Project Code: 0 **Asset Owner/Dept:** Engineering

Project Contact: Trevor Coolidge Project Management Dept: Eng

Project Description/ Benefits

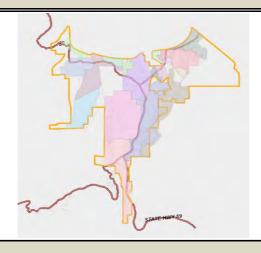
Project Status: 10-yr Plan

This project provides a budget to replace the off-brand nukclear gauge with a new gauge that will be the same brand as the rest. The gauges are used by the Engineering Department, Customer Service and Operations crews to check compaction of backfill soil. The funding will be split 50/50 between Water and Sewer.

Need f	or Proj	ect								Operation and Maintenance Impacts				
Asset F	Replace	ment/E	nd-of-l	ife										
Refere	nce Do	cumen	t											
	CIP Plar											CIP No.	98	
Project	t Fundi	ng												
Capita	l Impro	vemen	t Exper	diture	s (Millio	ons)						Total	Year	
FY24	25	26	27	28	29	30	31	32	33	34	Planning	\$10,000		
	0.04										Design			
	0.01							Construction		N/A				
						al Capi	tal Imp	rovement Cost	\$10,000					

Funding Source: Capital

Project Location and Photos





Project Name: CMMS IMPLEMENTATION

Project Code: CMMSRP Asset Owner/Dept: Engineering

Project Contact: Steve Caswell Project Management Dept: Eng

Project Description/ Benefits

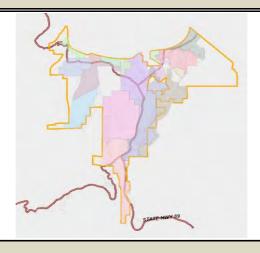
Project Status: 10-yr Plan

This project provides a budget to replace the District's work order system, which is the backbone of the District's Asset Management program and is used by both Operations and Engineering. The current platform has been in place for over 15 years, and the vendor is moving away from supporting linear assets. A team of District staff, with support from an outside consultant experienced in helping utilities with this selection, have reviewed over a dozen alternative products and as of January 2024 have narrowed the selection to 2. The budget will be used to procure and implement the new tool in 2024 and 2025. The funding will be split 50/50 between Water and Sewer.

Need for Project											Operation and Maintenance Impacts			
Asset Management											Improved Alarming/Data Collection			
Reference Document														
24-25 CIP Planning												CIP No. 99		
Project	Fundi	ng												
Capital Improvement Expenditures (Millions)												Total	Year	
FY24	25	26	27	28	29	30	31	32	33	34	Planning	\$258,000		
	0.26										Design			
											Construction		N/A	
	Total Capital Improvement Cost												-	

Funding Source: Capital

Project Location and Photos



WATER

WATE	R ENGINEERING 10YR CIP	Calendar Year	Current											
		Planned for	Budget	Proposed B	Budget by Fisca	l Year :								10-YR
#	PROJECT	Construction	FY 24	25	26	27	28	29	30	31	32	33	34	TOTALS
1	WATER SYSTEM UNPLANNED REPAIRS	23	500,000	500,000						Ū.	<u> </u>		Ų.	500,000
2	KELLER-HEAVENLY ZONE IMPROVEMENTS (3)	21 to 24	3,292,150											0
3	METERS - CLEANUP	21 to 25	256,851	707,000										707,000
4	BARTON HOSPITAL 4" METER REPLACEMENT	31		,,,,,,							127,000			127,000
5	METER COMBO'S	23	7,500								,			0
6	CATHODIC PROTECTION ON WATER SERVICES (PHASE 1)	27	54,000				563,000							563,000
7	STPUD FAUCETS REPLACEMENT PROJECT	29	,,,,,,,						317,000					317,000
8	VALVE AND FIRE HYDRANT REPLACEMENTS	ALL	792,825	371,000	382,000	393,000	405,000	417,000	430,000	442,000	456,000	469,000	483,000	4,248,000
9	AMI TOWER REPLACEMENT	25 to 27		29,000	60,000	62,000	32,000		•		·			183,000
10	METER REPLACEMENT PROGRAM	31+								568,000	1,170,000	310,000	638,000	2,686,000
11	LEAD SERVICE LINES PROGRAM	TBD		100,000					6					100,000
12	FUTURE HYDRANTS	26			85,000	175,000								260,000
13	BLACK BART #1 AND #2 WATERLINE	23	2,920,316						7	2		l _m =		0
14	HAM LANE WATERLINE	23	435,250											0
15	GLENWOOD RANCHO WATERLINE	28	10,450				1,872,000	3,855,000						5,727,000
16	HERBERT WALKUP WATERLINE	24	1,389,000	3,127,000						3-0				3,127,000
17	LTB WATERLINE	27	4,444			1,205,000	2,481,000				3	Ū/i		3,686,000
18	ANGORA CREEK WATERLINE	30	15,258			, ,	· · · ·		1,669,000	3,419,000				5,088,000
19	CLEARVIEW MOUNTAIN MEADOW WATERLINE	31	15,323							1,534,000	3,139,000			4,673,000
20	TAHOE MTN WL REPLACEMENT	26	9,405		679,000	1,399,000								2,078,000
21	PARK AVENUE #1 WATERLINE	26	25,000		324,000	668,000								992,000
22	APACHE AVE WL IMPROVEMENTS	24	344,744	856,000										856,000
23	BIJOU #1 WATERLINE	26	35,386	·	847,000	1,744,000								2,591,000
24	GARDNER MOUNTAIN #2/4 WATERLINE	28		52,000			1,282,000	2,640,000						3,974,000
25	WILDWOOD #3/5 (+PRV) WATERLINE	27		52,000		1,371,000	2,824,000							4,247,000
26	TAHOE SIERRA 1 (was ST#2/M/Palmira) WATERLINE	29				55,000		2,452,000	5,050,000					7,557,000
27	BIJOU #4 WATERLINE	29				55,000		1,518,000	3,127,000					4,700,000
28	WILDWOOD #1/2 WATERLINE	30							1,640,000	3,378,000				5,018,000
29	MEYERS #1 WATERLINE	30							168,000	345,000				513,000
30	GARDNER MOUNTAIN #1/3 WATERLINE	31								1,646,000	3,390,000			5,036,000
31	TAHOE SIERRA 2 (was ST#5/4/1) WATERLINE	33										3,343,000	6,885,000	10,228,000
32	PIONEER VILLAGE WATERLINE	32									1,008,000	2,075,000		3,083,000
33	WASHOAN 1 (NOTTAWAY ACOMA) WATERLINE	31								1,037,000	2,136,000			3,173,000
34	TAHOE VALLEY #1 & #2 (ELOISE & RUTH) WATERLINE	34											2,321,000	2,321,000
35	PIONEER TRAIL WATERLINE - GOLDEN BEAR TO PINE VALLEY	25		1,695,000	3,491,000									5,186,000
36	REPLACE PT/MARSHALL AND PT/KOKANEE PRV	26			213,000	438,000								651,000
37	NEW PRV AT WASHOAN-NADOWA	24	368,000											0
38	NEW PRV AT SUSQUEHANA/PT (PINE VALLEY ZONE)	26			205,000	422,000								627,000
39	REGINA/DONNER WATERLINE	27	22,000			50,000	102,000							152,000
40	REPLACE NEEDLE PEAK #5 PRV	27	11,000			125,000	257,000							382,000
41	DEAD END IMPROVEMENT PROGRAM	ALL		52,000	54,000	55,000	57,000	58,000	60,000	62,000	64,000	66,000	68,000	596,000
42	DUAL MAIN ELIMINATION PROGRAM	ALL		52,000	54,000	55,000	113,000	116,000	120,000	123,000	127,000	131,000	135,000	1,026,000
43	PT (LARCH TO SKI RUN) WATERLINE IMPROVEMENTS	26	123,000	261,000										261,000
44	FIELD COMMUNICATION UPGRADES PHASE 2	23	112,433											0
45	FIELD COMMUNICATION UPGRADES PHASE 3	24	310,000											0
46	GENERATOR AT KELLER	24	130,921											0
47	GENERATOR AT PALOMA	24	194,298											0
48	UPPER MONTGOMERY BOOSTER, FIRE PUMP, WATERLINE (1)	27		116,000		513,000	1,057,000							1,686,000
49	H STREET ZONE BOOSTER, FIRE PUMP	27		116,000		423,000	872,000							1,411,000
50	AL TAHOE WELL REHABILITATION	25	380,881	410,000	993,000									1,403,000
51	AL TAHOE / BAYVIEW BACKUP POWER	26 to 27	387,094	440,000	1,954,000	639,000								3,033,000
52	TATA BOOSTER STATION AND TANK REPLACEMENT	32									1,347,000	2,774,000		4,121,000

24.25-CIP-Final-041224-CIPSheets [WATER]

South Tahoe Public Utility District 2024 Capital Improvement Program FY25-34 Engineering Ten-Yr Plan

WATE	ER ENGINEERING 10YR CIP	Calendar Year	Current											
		Planned for	Budget	Proposed E	Budget by Fisca	l Year :								10-YR
#	PROJECT	Construction	FY 24	25	26	27	28	29	30	31	32	33	34	TOTALS
53	DAVID LANE BOOSTER IMPROVEMENTS, GEN CONNECT	31								532,000	1,095,000			1,627,000
54	FLAGPOLE ZONE IMPROVEMENTS	28					346,000	711,000						1,057,000
55	LOWER COLD CREEK BOOSTER ELECTRICAL IMPROVEMENTS	33										538,000	1,108,000	1,646,000
56	CORNELIAN AND ELKS CLUB PLC REPLACEMENT	29						464,000						464,000
57	WELLS ASSET MANAGEMENT PROGRAM	ALL			234,000	381,000	484,000	493,000	311,000	499,000	413,000	538,000	624,000	3,977,000
58	PALOMA WELL REHAB	22 to 23	237,255											0
59	BAYVIEW WELL VFD AND CONTROL SYSTEM UPGRADES	24	132,000											0
60	ELKS CLUB WELL PUMP/MOTOR REPLACEMENT	TBD	258,000											0
61	BAKERSFIELD PUMP/MOTOR REPLACEMENT	TBD	383,000											0
62	AIRPORT WELL TREATMENT AND ELECTRICAL REPLACEMENT	33										1,105,000	2,276,000	3,381,000
63	SUT WELL REHAB	24	150,000	186,000										186,000
64	WATER BOOSTER STATION AND WELL MONITORING	26+			523,000	539,000	131,000	135,000	139,000	143,000	147,000	152,000	156,000	2,065,000
65	WATER EFFICIENCY IMPROVEMENTS	28					364,000	750,000						1,114,000
66	TANK COATINGS (STATELINE NO. 1)	25		352,000	697,000									1,049,000
67	TANK COATINGS (STATELINE NO.2)	26		27,000	596,000	1,226,000]				1,849,000
68	TANK COATINGS (FLAGPOLE NO. 2)	23	260,734					10						0
69	TANK COATINGS (IROQUOIS 1)	22 and 28	5,392						CA m					0
70	TANK COATINGS (ECHO VIEW)	23	37,000						(FO)					0
71	TANK COATINGS (LOOKOUT)	22 and 31	5,874							0/3				0
72	TANK COATINGS (IROQUOIS 2)	23	156,000								61			0
73	TANK COATINGS (GARDNER NO. 2)	24	37,000	82,000										82,000
74	TANK COATINGS (XMAS VALLEY)	24		115,000							10.			115,000
75	TANK COATINGS (COLD CREEK)	24 and 33		176,000										176,000
76	TANKS ASSET MANAGEMENT PROGRAM	ALL			179,000	577,000	831,000	565,000	460,000	518,000	662,000	365,000	510,000	4,667,000
77	ADMIN HVAC UPGRADES	24	31,000											0
78	LOOKOUT TANK ACCESS ROAD REPAIRS	24	563,224											0
79	REPLACE NUKE GAUGE	N/A		10,000										10,000
80	CMMS IMPLEMENTATION	N/A		258,000										258,000
		WATE	R TOTALS:	10,142,000	11,570,000	12,570,000	14,073,000	14,174,000	13,491,000	14,246,000	15,281,000	11,866,000	15,204,000	132,617,000

27,609,000

28,135,000

26,588,000

31,019,000

27,666,000

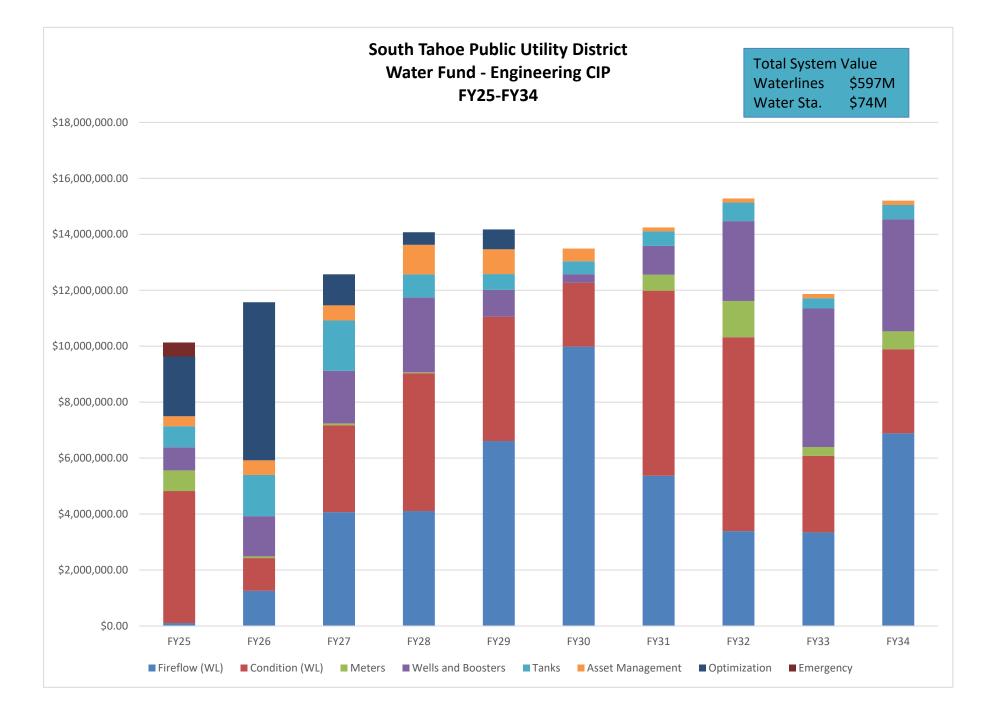
23,579,000

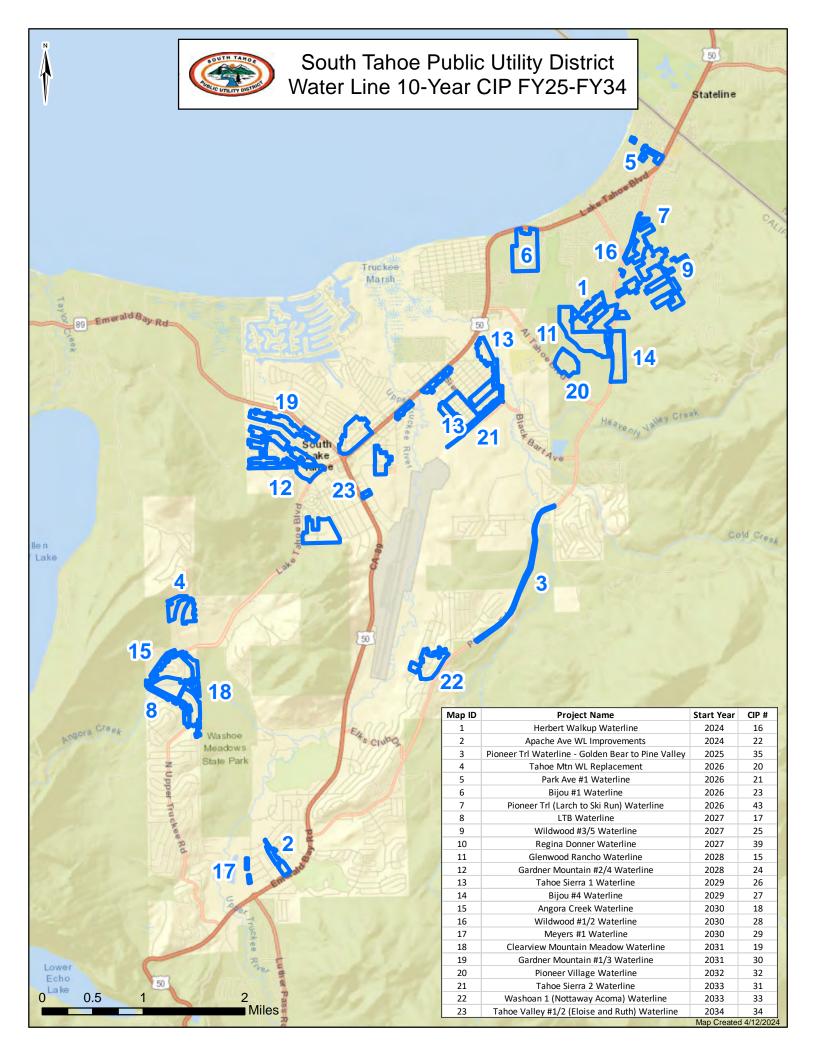
28,440,000

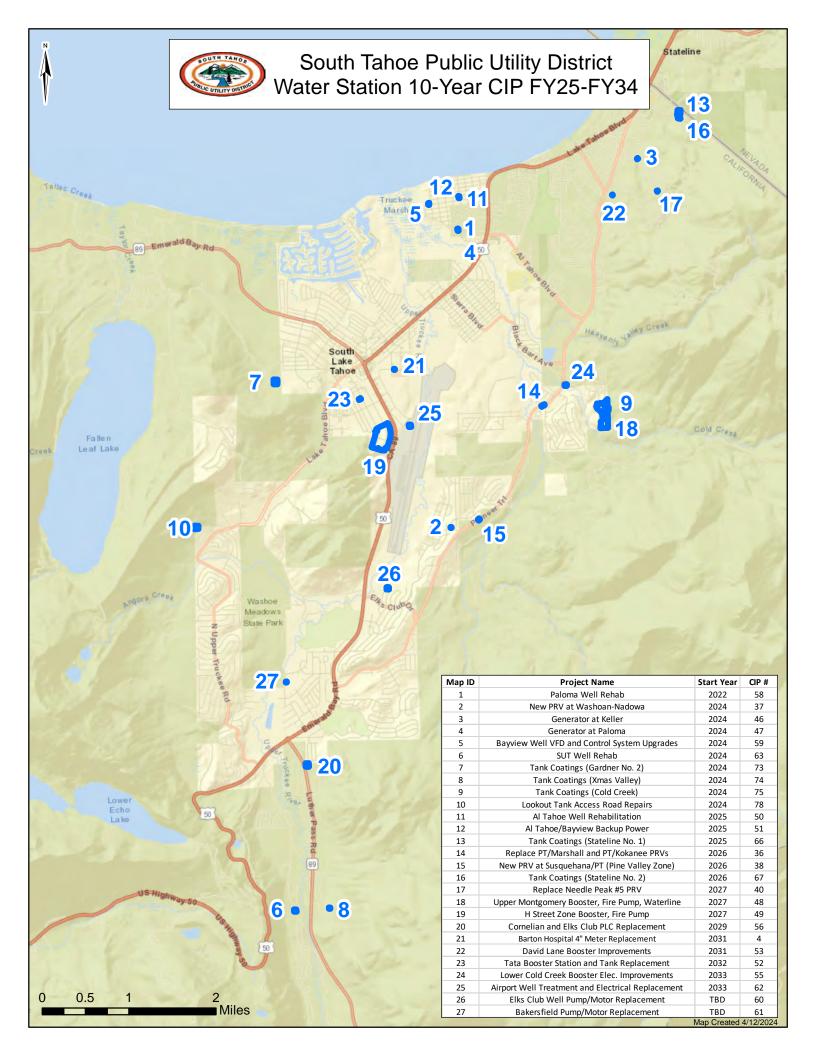
265,853,000

SEWER AND WATER TOTALS: 24,180,000 23,410,000 25,227,000

24.25-CIP-Final-041224-CIPSheets [WATER]









Pg. No. Project Name

- 1 WATER SYSTEM UNPLANNED REPAIRS
- 2 KELLER-HEAVENLY ZONE IMPROVEMENTS (3)
- 3 METERS CLEANUP
- 4 BARTON HOSPITAL 4" METER REPLACEMENT
- 5 METER COMBO'S DELETED
- 6 CATHODIC PROTECTION ON WATER SERVICES (PHASE 1)
- 7 STPUD FAUCETS REPLACEMENT PROJECT
- 8 VALVE AND FIRE HYDRANT REPLACEMENTS
- 9 AMI TOWER REPLACEMENT
- 10 METER REPLACEMENT PROGRAM
- 11 LEAD SERVICE LINES PROGRAM
- 12 FUTURE HYDRANTS
- 13 BLACK BART #1 AND #2 WATERLINE COMPLETED
- 14 HAM LANE WATERLINE COMPLETED
- 15 GLENWOOD RANCHO WATERLINE
- 16 HERBERT WALKUP WATERLINE
- 17 LTB WATERLINE
- 18 ANGORA CREEK WATERLINE
- 19 CLEARVIEW MOUNTAIN MEADOW WATERLINE
- 20 TAHOE MTN WL REPLACEMENT
- 21 PARK AVENUE #1 WATERLINE
- 22 APACHE AVE WL IMPROVEMENTS
- 23 BIJOU #1 WATERLINE
- 24 GARDNER MOUNTAIN #2/4 WATERLINE
- 25 WILDWOOD #3/5 (+PRV) WATERLINE
- TAHOE SIERRA 1 (was ST#2/M/Palmira) WATERLINE
- 27 BIJOU #4 WATERLINE
- 28 WILDWOOD #1/2 WATERLINE
- 29 MEYERS #1 WATERLINE
- 30 GARDNER MOUNTAIN #1/3 WATERLINE
- 31 TAHOE SIERRA 2 (was ST#5/4/1) WATERLINE
- 32 PIONEER VILLAGE WATERLINE
- 33 WASHOAN 1 (NOTTAWAY ACOMA) WATERLINE
- 34 TAHOE VALLEY #1 & #2 (ELOISE & RUTH) WATERLINE
- 35 PIONEER TRAIL WATERLINE GOLDEN BEAR TO PINE VALLEY



g. No.	Project Name
36	REPLACE PT/MARSHALL AND PT/KOKANEE PRV
37	NEW PRV AT WASHOAN-NADOWA
38	NEW PRV AT SUSQUEHANA/PT (PINE VALLEY ZONE)
39	REGINA/DONNER WATERLINE
40	REPLACE NEEDLE PEAK #5 PRV
41	DEAD END IMPROVEMENT PROGRAM
42	DUAL MAIN ELIMINATION PROGRAM
43	PT (LARCH TO SKI RUN) WATERLINE IMPROVEMENTS
44	FIELD COMMUNICATION UPGRADES PHASE 2
45	FIELD COMMUNICATION UPGRADES PHASE 3
46	GENERATOR AT KELLER
47	GENERATOR AT PALOMA
48	UPPER MONTGOMERY BOOSTER, FIRE PUMP, WATERLINE (1)
49	H STREET ZONE BOOSTER, FIRE PUMP
50	AL TAHOE WELL REHABILITATION
51	AL TAHOE / BAYVIEW BACKUP POWER
52	TATA BOOSTER STATION AND TANK REPLACEMENT
53	DAVID LANE BOOSTER IMPROVEMENTS, GEN CONNECT
54	FLAGPOLE ZONE IMPROVEMENTS
55	LOWER COLD CREEK BOOSTER ELECTRICAL IMPROVEMENTS
56	CORNELIAN AND ELKS CLUB PLC REPLACEMENT
57	WELLS ASSET MANAGEMENT PROGRAM
58	PALOMA WELL REHAB
59	BAYVIEW WELL VFD AND CONTROL SYSTEM UPGRADES
60	ELKS CLUB WELL PUMP/MOTOR REPLACEMENT - POSTPONED
61	BAKERSFIELD PUMP/MOTOR REPLACEMENT - POSTPONED
62	AIRPORT WELL TREATMENT AND ELECTRICAL REPLACEMENT
63	SUT WELL REHAB
64	WATER BOOSTER STATION AND WELL MONITORING
65	WATER EFFICIENCY IMPROVEMENTS
66	TANK COATINGS (STATELINE NO. 1)
67	TANK COATINGS (STATELINE NO.2)
68	TANK COATINGS (FLAGPOLE NO. 2) - COMPLETED
69	TANK COATINGS (IROQUOIS 1) - COMPLETED
70	TANK COATINGS (ECHO VIEW) - COMPLETED



g. No.	Project Name
71	TANK COATINGS (LOOKOUT) - COMPLETED
72	TANK COATINGS (IROQUOIS 2) - COMPLETED
73	TANK COATINGS (GARDNER NO. 2)
74	TANK COATINGS (XMAS VALLEY)
75	TANK COATINGS (COLD CREEK)
76	TANKS ASSET MANAGEMENT PROGRAM
77	ADMIN HVAC UPGRADES
78	LOOKOUT TANK ACCESS ROAD REPAIRS
79	REPLACE NUKE GAUGE

CMMS IMPLEMENTATION

80



Project Name: WATER SYSTEM UNPLANNED REPAIRS

Project Code:0Asset Owner/Dept:VariousProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This fund is a rolling fund to ensure funding is available for any unforeseen Water emergencies. This money could be used for in house costs or contactor billing.

Need for Project	Operation and Maintenance Impacts
Emergency Response	

Reference Document

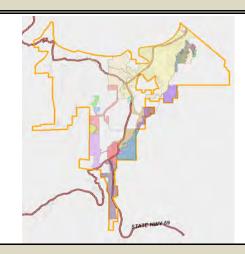
19-20 CIP Planning			CIP No. 1
--------------------	--	--	-----------

Project Funding

Capita	l Impro	vement	t Expen	ditures	(Millic	ns)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.50	0.50										Design		
0.50	0.50										Construction	\$500,000	23

Total Capital Improvement Cost \$500,000

Funding Source: Capital Project Location and Photos





Project Name: KELLER-HEAVENLY ZONE IMPROVEMENTS (3)

Project Code:15W007Asset Owner/Dept:PumpsProject Contact:Trevor CoolidgeProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The Keller Water System provides water to the area adjacent to and above the California Lodge at the Heavenly Ski Resort. The service area includes both resort and residential properties with a Wildland Urban Interface area. The Keller-Heavenly Water System Improvements Project includes electrical and piping upgrades to Keller Booster Station, upsizing of water mains, replacement and instrumentation of PRVs and vaults, communication upgrades, and replacement of the Keller water tanks. Stabilization of the mountainside is also a key project element. Project will be constructed in 3 phases over 2-3 years.

Need for Project	Operation and Maintenance Impacts
Safety	Safety Improvements
Asset Life Extension	Addition of Assets

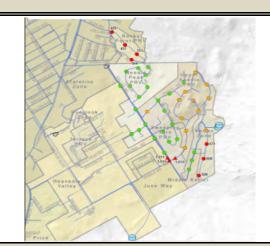
Reference Bocument			
Water System Optimization Plan (WSOP)	A9	CIP No.	2
Project Funding			
Capital Improvement Expenditures (Millions)	Total	Year	

Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
3.29											Design		
5.29											Construction	\$3,292,150	21 to 24

Total Capital Improvement Cost \$3,292,150

Funding Source: Capital Project Location and Photos

Poforonco Document



Comments

This project commenced in 2021 and will be complete in 2024.



Project Name: METERS - CLEANUP

Project Code: METER6 **Asset Owner/Dept:** CS, URW **Project Contact: Trevor Coolidge** Project Management Dept: Eng

Project Description/ Benefits

10-yr Plan **Project Status:**

Over a period of 5 years from 2021 to 2025, this project will install approximately 110 remaining meters into the distribution system system. The remaining meters were skipped during the past meter project, due to their complexity. These locations will be tackled a few at a time, primarily as add-ons to other larger CIP projects. The State of California requires that all services be metered by 2025.

Need for Project	Operation and Maintenance Impacts
System Efficiency	Addition of Assets
Regulatory Mandate	Increase Planned Maintenance

Reference Document

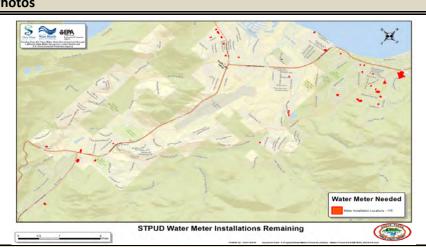
20-21 CIP Planning CIP No. 3

Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year	l
FY 24	25	26	27	28	29	30	31	32	33	34	Planning			
0.26	0.71										Design			l
0.26	0.71										Construction	\$963,851	21 to 25	l
											·			1

Total Capital Improvement Cost \$963,851

Funding Source: Capital **Project Location and Photos**





Project Name: BARTON HOSPITAL 4" METER REPLACEMENT

Project Code:0Asset Owner/Dept:CSProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces the main water meter at Barton Hospital. It has been identified for replacement by Customer Service due to a concern about under-reporting consumption, and is expected to need a new vault. The project is postponed beyond 2030, however, to allow time for anticipated repurposing of the hospital site, so that the appropriate size replacement can be made. As of 2024, budget estimate is a placeholder, which will be updated once the meter size and need for vault is determined.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Ease of access
System Efficiency	

Reference Document

24 2F CID Discrete	1	CID NI 4
24-25 CIP Planning		CIP No. 4
ο ο	1	

Project Funding

Capita	Capital Improvement Expenditures (Millions)												Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
								0.12			Design	\$10,000	
								0.13			Construction	\$90,000	31

Total Capital Improvement Cost |\$100,000

Funding Source: Capital

Project Location and Photos



Comments



Project Name: CATHODIC PROTECTION ON WATER SERVICES (PHASE 1)

Project Code: ANODE2 **Asset Owner/Dept: URW Project Contact:** Steve Caswell Project Management Dept: Eng

Project Description/ Benefits

10-yr Plan **Project Status:**

Approximately 54% (135 mi) of the 250 miles of water main in the STPUD system is steel. Assume 2/3 of the steel pipe is in condition that could be improved with cathodic protection. This project improves the first 3 miles of pipe (~111 customers at \$2000/each plus 28 test stations @ \$6K/ea), as a pilot program.

Need for Project	Operation and Maintenance Impacts
Asset Life Extension	Reduced Reactionary Maintenance
Funding Opportunity	

Reference Document

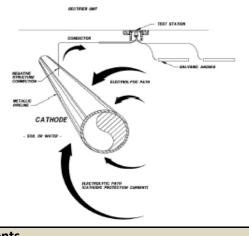
Other CIP No. 6

Project Funding

Capita	Capital Improvement Expenditures (Millions)											Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.05				0.56							Design	\$54,000	23
0.05				0.56							Construction	\$563,000	27
										_		4	

Total Capital Improvement Cost \$617,000

Funding Source: Capital **Project Location and Photos**





Comments



Project Name: STPUD FAUCETS REPLACEMENT PROJECT

Project Code:0Asset Owner/Dept:LabProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project provides a placeholder for dedicated water quality sampling stations at up to 30 of 70 sampling locations on the distribution system that currently rely on customer taps (hose bib, etc.). Existing STPUD Faucets that have reached the end of their life are not included in this scope and will be coordinated directly between the Lab and URW for replacement.

Need for Project	Operation and Maintenance Impacts
Water Quality	Ease of access
	Safety Improvements
	Improved Alarming/Data Collection

Reference Document

24-25 CIP Planning	CIP No. 7
24-23 CIF Flamming	

Project Funding

Capita	Capital Improvement Expenditures (Millions)												Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
						0.32					Design		
						0.32					Construction	\$100,000	29

Total Capital Improvement Cost \$100,000

Funding Source: Capital

Project Location and Photos



Comments



Project Name: VALVE AND FIRE HYDRANT REPLACEMENTS

Project Code:FHREPL; VALVESAsset Owner/Dept:URWProject Contact:Chris StanleyProject Management Dept:URW

Project Description/ Benefits

Project Status: 10-yr Plan

This project supplements the URW budget to test and replace critical valves and fire hydrants that do not function. This ensures that valves and fire hydrants are accessible in an emergency. Assumes 38 FHs are replaced by URW and 10 Critical Valves are replaced by a contractor each year. The program uses a 2-person crew to exercise all 3,687 system valves every 2 years and all 1,903 fire hydrants every 5 years. Budget assumes the crew works 105 days per year to keep this pace.

Need for Project	Operation and Maintenance Impacts
Asset Management	Safety Improvements
	Increase Planned Maintenance
Reference Document	

Non-Waterline Water Projects CIP No. 8

Project Funding

Capita	Capital Improvement Expenditures (Millions)											Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.79	0.37	0.38	0.39	0.41	0.42	0.43	0.44	0.46	0.47	0.48	Design		
0.79	0.37	0.38	0.39	0.41	0.42	0.43	0.44	0.46	0.47	0.48	Construction	\$5,040,825	ALL
												4	

Total Capital Improvement Cost \$5,040,825

Funding Source: Capital

Project Location and Photos





Project Name: AMI TOWER REPLACEMENT

Project Code:0Asset Owner/Dept:ITProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This program sets aside funds for the replacement of hardware for the AMI tower system, which has a 10-15 year life. There are 5 antenna located at the following tanks: Gardner Mtn, Forest Mtn, Cold Creek, Flagpole and Heavenly.

Need for Project	Operation and Maintenance Impacts

Asset Replacement/End-of-Life

Reference Document

19-20 CIP Planning	CIP No. 9

Project Funding

Capita	l Impro	vemen		Total	Year								
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
	0.03	0.06	0.06	0.03							Design		
	0.03	0.06	0.06	0.03							Construction	\$183,000	25 to 27

Total Capital Improvement Cost \$183,000

Funding Source: Capital Project Location and Photos





Project Name: METER REPLACEMENT PROGRAM

Project Code: 0 Asset Owner/Dept:

Project Contact: TBD Project Management Dept:

Project Description/ Benefits

Project Status: 10-yr Plan

Proposed program replaces residential water meters based on their install year. In 2030, meters installed during the first of the comprehensive meter replacement programs will be 20 years old, which is the anticipated life of the residential water meters. The program assumes meters will be installed by a contractor at a cost of \$500 per meter (2024\$); replacement of pits is not included as their anticipated life is 50 years.

Need for Project	Operation and Maintenance Impacts				
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance				
System Efficiency					

Reference Document

24-25 CIP Planning	CIP No. 10

Project Funding

Capita	l Impro	vemen	t Exper		Total	Year							
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
							0.57	1.17	0.31		Design	\$100,000	
							0.57	1.17	0.31	0.64	Construction	\$2,586,000	31+

Total Capital Improvement Cost \$2,686,000

Funding Source: Capital

Project Location and Photos







Project Name: **LEAD SERVICE LINES PROGRAM**

Project Code: Asset Owner/Dept: LSLINV CS **Project Contact: Steve Caswell** Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

As of 2024, the scope of this program is is limited to purchase of a lead identification field tool. Inspections will be performed with one full-time temp over 5 years (\$25,000/season) or one half-time temp over 10 years (\$12,500/season). In fall 2025, begin to budget service line replacements starting in 2026, based on findings of 2025 inspections. This line item will be funded every year after that until we have removed all lead services from our system.

Increase Planned Maintenance
increase riainted Maintenance

24-25 CIP Planning	CIP No. 11
Droiget Funding	

Project Funding

(Capita	l Impro	vemen	t Exper		Total	Year							
	FY 24	25	26	27	28	29	30	31	32	33	34	Planning	\$100,000	24
Ī		0.10										Design		
		0.10										Construction		TBD
Г													44.00.000	

Total Capital Improvement Cost \$100,000

Funding Source: Capital **Project Location and Photos**



Photo from National League of Cities



Project Name: FUTURE HYDRANTS

Project Code:FUTRFHAsset Owner/Dept:URWProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

10 fire hydrants remain to be installed on pipelines throughout the sytem, mostly greater than 6-inch with no fire hydrants within 500 ft in developed areas and 1000 ft spacing in undeveloped areas.

Need for Project	Operation and Maintenance Impacts
Emergency Response	Safety Improvements
Safety	Addition of Assets
Hydrant Spacing	

nere enee 2000 ment		
Non-Waterline Water Projects	CIP No.	12
Project Funding		

C	apital	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
F	Y 24	25	26	27	28	29	30	31	32	33	34	Planning		
			0.09	0.18								Design	\$15,000	
			0.09	0.18								Construction	\$245,000	26
	Total Capital Improvement Cost													

Funding Source: Capital Project Location and Photos

Reference Document





Page

12

Comments

Total project cost has been reduced to reflect receipt of funding by Federal American Resue Plan Act of 2021 (ARPA) through the City in 2022.



Project Name: GLENWOOD RANCHO WATERLINE

Project Code:GLRAWLAsset Owner/Dept:URWProject Contact:New PMProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces approximately 10,600 LF of poor condition steel water main, identified by URW. Project includes the following streets: Glenwood, Rancho, Becka, Bruce, Janet, Plum, Jackson, Allen Rae and Andy Jo.

Need for Project	Operation and Maintenance Impacts			
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance			
Maintenance History				

Reference Document

19-20 CIP Planning CIP No. 15

Project Funding

Capital	l Impro	vemen	t Expen		Total	Year							
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.01				1.87	3.86						Design	\$52,000	23-25
0.01				1.07	3.00						Construction	\$5,727,000	28

Total Capital Improvement Cost \$5,779,000

Funding Source: Capital Project Location and Photos





Project Name: HERBERT WALKUP WATERLINE

Project Code:HERBWLAsset Owner/Dept:URWProject Contact:Brent GoligoskiProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces approximately 9,930 LF of poor condition steel water main, identified by URW. Project includes the following streets: Herbert, Walkup, Woodland, Hobart, Red Lake and Warr. The District has received increased water quality complaints from customers on Red Lake since Fall 2021, URW has been flushing bi-weekly since that time. Project installs additional waterline to loop Red Lake Road for improved water quality.

Need for Project	Operation and Maintenance Impacts				
Water Quality	Reduced Reactionary Maintenance				
Maintenance History	Addition of Assets				
Asset Replacement/End-of-Life					

Reference Document

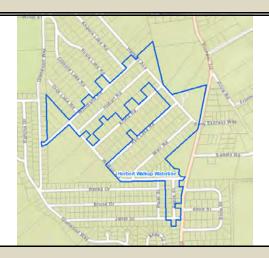
19-20 CIP Planning	CIP No. 16
13-20 Cir Fidillilig	CIF INO. 10

Project Funding

Capita	apital Improvement Expenditures (Millions)											Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
1 20	2 12										Design	\$35,000	22
1.39	3.13										Construction	\$4,516,000	24

Total Capital Improvement Cost \$4,551,000

Funding Source: Capital Project Location and Photos



Comments

This project constructs with HERBERT WALKUP REPLACEMENT (SEWER).



Project Name: LTB WATERLINE

Project Code:LTBVWLAsset Owner/Dept:URWProject Contact:New PMProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces approximately 6,300 LF of poor condition steel water main, identified by URW. Project includes the following streets: Lake Tahoe Blvd.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance

Maintenance History

Reference Document

19-20 CIP Planning	CIP No. 17

Project Funding

Capital Improvement Expenditures (Millions)												Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.00			1 21	2.40							Design	\$52,000	24
0.00			1.21	2.48							Construction	\$3,686,000	27

Total Capital Improvement Cost \$3,738,000

Funding Source: Capital Project Location and Photos





Project Name: ANGORA CREEK WATERLINE

Project Code:ANGOCKAsset Owner/Dept:URWProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces approximately 8,790 LF of poor condition steel water main, identified by URW. The project includes the following streets: Angora Creek, View, Coyote Ridge and Eagle. Massive main break in 2022 required immediate replacement of main on View from LTB to Angora Creek. This block will be removed from final design of this project

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance

Reference Document Waterline Prioritization Plan 2018 CIP No. 18

Project Funding

Capital	Capital Improvement Expenditures (Millions)											Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.02						1.67	2.42				Design	\$52,000	24
0.02						1.67	3.42				Construction	\$5,088,000	30

Total Capital Improvement Cost \$5,140,000

Funding Source: Capital Project Location and Photos





Project Name: CLEARVIEW MOUNTAIN MEADOW WATERLINE

Project Code:CLRVWLAsset Owner/Dept:URWProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces approximately 7,840 LF of poor condition steel water main, identified by URW. The project includes the following streets: Clearview, Frontier, Mountain Trout, Dixie Mountain, Mountain Meadow and North Upper Truckee.

Need for Project	Operation and Maintenance Impacts				
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance				
Maintenance History					

Reference Document

Waterline Prioritization Plan 2018 CIP No. 19

Project Funding

Capita	l Impro	vemen		Total	Year								
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.03							1 52	2 1 4			Design	\$52,000	24
0.02							1.53	3.14			Construction	\$4,673,000	31

Total Capital Improvement Cost \$4,725,000

Funding Source: Capital Project Location and Photos





Project Name: TAHOE MTN WL REPLACEMENT

Project Code:TMTNWLAsset Owner/Dept:URWProject Contact:New PMProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces approximately 4,090 LF of poor condition steel water mains, idenfitifed by URW. Project includes the following streets: Iron Mtn, Granite Mtn, Forest Mtn, Brush and Cone.

Need for Project	Operation and Maintenance Impacts						
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance						
Maintenance History							

Reference Document

20-21 CIP Planning CIP No. 20

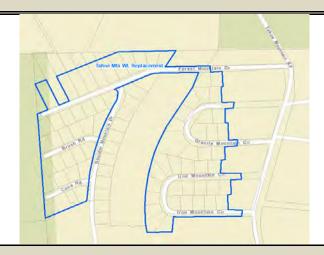
Project Funding

Capital	l Impro	vemen	t Expen		Total	Year							
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.01		0.68	1.40								Design	\$52,000	23
0.01		0.08	1.40								Construction	\$2,078,000	26
												4	

Total Capital Improvement Cost \$2,130,000

Funding Source: Capital

Project Location and Photos





Project Name: PARK AVENUE #1 WATERLINE

Project Code:PARKWLAsset Owner/Dept:URWProject Contact:Brent GoligoskiProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project will allow District staff to replace the existing 2-inch and 6-inch pipe with upsized piping. It is approximated that this project will affect 1,920 LF of pipe. The project will take place along Meadow Road, Park Avenue, Pine Road, Lake Tahoe Blvd, and Pine Blvd. This project ranks 6 out of 39. City is planning drainage and pedestrian improvements in the area. The Park Ave 1 Waterline project will be timed to install in advance of the City's project.

Need for Project	Operation and Maintenance Impacts
Capacity/Hydraulic Deficiencies	Reduced Reactionary Maintenance
Interagency Coordination	
Maintenance History	

Reference Document

Waterline Prioritization Plan 2018 CIP No. 21

Project Funding

Capital	apital Improvement Expenditures (Millions)											Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.02		0.22	0.67								Design	\$20,000	23
0.03		0.32	0.67								Construction	\$1,000,000	26
									¢4 020 000				

Total Capital Improvement Cost \$1,020,000

Funding Source: Capital Project Location and Photos





Project Name: APACHE AVE WL IMPROVEMENTS

Project Code:APCHWLAsset Owner/Dept:URWProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces approximately 2,100 LF of 4-in and 6-in AC water main on Apache Ave from Hwy 50 to East San Bernardino in coordination with the County of El Dorado Complete Streets Project. This water main was originally part of the Meyers#2 Waterline Project, which was found to be a Non-Fireflow Undersize Waterline Project. However, because of the failed condition of numerous valves along this stretch, future need to replace water services, and the anticipated need to relocate the main at storm drain crossings in coordination with the County project, this water main replacement is elevated in priority.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance
Interagency Coordination	

Reference Document

Waterline Prioritization Plan 2018 CIP No. 22

Project Funding

Capital	pital Improvement Expenditures (Millions)											Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.24	0.86										Design	\$17,000	22
0.34	0.86										Construction	\$1,200,000	24
										ć4 247 000			

Total Capital Improvement Cost \$1,217,000

Funding Source: Capital Project Location and Photos



Comments

To be constructed by the County's contractor.



Project Name: BIJOU #1 WATERLINE

Project Code:BIJ1WLAsset Owner/Dept:URWProject Contact:Julie RyanProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

Much of the neighborhood is up to standard with respect to line size however the Deer Park neighborhood is deficient in line size and hydrants. This project focuses on replacing undersize water mains and adding fire hydrants in Deer Park, as well as upzing mains on Mono and Treehaven. This project replaces approximately 5,341 LF of water main, on Tree Haven, Mono, Juniper, Long Valley, Ash, Pickett and Fir. In 2021, Takela main was confirmed by potholing to be 6" and will not be replaced. This project was ranked 5 out of 39 waterline projects for priority.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance
Maintenance History	
Capacity/Hydraulic Deficiencies	
Hydrant Spacing	

Reference Document

Waterline Prioritization Plan 2018 CIP No. 23

Project Funding

Capita	pital Improvement Expenditures (Millions)											Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning	\$25,000	
0.04		0.85	1.74								Design	\$150,000	22
0.04		0.85	1.74								Construction	\$2,591,000	26
												40 -00 000	

Total Capital Improvement Cost \$2,766,000

Funding Source: Capital Project Location and Photos



Comments

If loan package for Pioneer Trail package cannot be secured in time for construction May 2025, Bijou 1 waterline will construct in 2025 instead.



Project Name: GARDNER MOUNTAIN #2/4 WATERLINE

Project Code:GDNR24Asset Owner/Dept:URWProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

Gardner Mountain is deficient with respect to fire flow. For economy of scale, this project combines two project areas, previously defined as Gardner Mtn #2 and #4. The Gardner Mtn #2 Project replaces a 4-inch pipe along Clement St between Gardner St & Clement Well. This project will affect approximately 3605 L.F. of pipe, on Clement, Gardner and Tata. This project ranks 9 out of 39.

Gardner Mountain #4 Waterline project will address deficiencies in line size such as replacing the 4-inch pipe along south branch of Gardner St to Julie Ln. All of the 8-inch and 10-inch pipe along Julie Ln from Agate St to Lake Tahoe Blvd will be replaced. This will affect approximately 3,660 LF of pipe. This project ranks 10 out of 39.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance
Capacity/Hydraulic Deficiencies	
Maintenance History	

Reference Document

Waterline Prioritization Plan 2018	CIP No. 24

Project Funding

Capita	pital Improvement Expenditures (Millions)											Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
	0.05			1.28	2.64						Design	\$52,000	25
	0.05			1.28	2.64						Construction	\$3,922,000	28
												¢2.074.000	

Total Capital Improvement Cost \$3,974,000

Funding Source: Capital Project Location and Photos



Comments



Project Name: WILDWOOD #3/5 (+PRV) WATERLINE

Project Code:WILD35Asset Owner/Dept:URWProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The Wildwood Area is deficient with respect to fire flow. For economy of scale, this project combines two project areas, previously defined as Wildwood #3 and #5, and includes zone consolidation and replacement of two pressure reducing valve stations that have reached the end of their useful life with a single modern PRV station, and looping dead end lines for better water quality. Wildwood Project 3 upsizes 6-inch and 4-inch lines along Wildwood Avenue between Saddle Road and Ruby Way. Fire hydrants will be added to improve flow, which those improved flows will be required for Wildwood Project 5. Wildwood Project 3 needs to be addressed before Wildwood Project 5 can begin. This project will affect approximately 4,530 LF of pipe. This project ranks 21 out of 39. Wildwood Project 5 upsizes existing pipes to meet community demands. This project will also allow staff to consolidate the Terrace and Overlook PRV, which together are the sole source of water delivery to approximately 50 customers. This project will affect approximately 2,803 LF of pipe and must be addressed after Wildwood Project 3. This project ranks 10 out of 39. The project includes the following streets: Knoll, Terrace and Overlook.

Need for Project	Operation and Maintenance Impacts				
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance				
Hydrant Spacing	Eliminates Asset				
Capacity/Hydraulic Deficiencies					

Reference Document

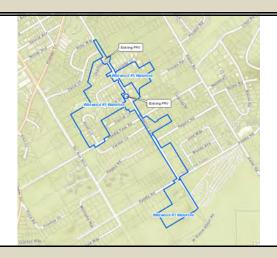
Waterline Prioritization Plan 2018 CIP No. 25

Project Funding

Capit	apital Improvement Expenditures (Millions)											Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
	0.05		1.37	2.82							Design	\$52,000	25
	0.05		1.57	2.82							Construction	\$4,195,000	27
												¢4 247 000	

Total Capital Improvement Cost \$4,247,000

Funding Source: Capital Project Location and Photos



Comments

For economy of scale, construct with Regina/Donner WL and PRV Keller #5 (Needle Peak).



Project Name: TAHOE SIERRA 1 WATERLINE

Project Code:0Asset Owner/Dept:URWProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project combines Sierra Tract Projects 2, M and Palmira to create an upsized loop line around the Tahoe Sierra neighborhood, improving fire flows to the interior streets until replacement of the interior streets can be completed. The Sierra Tract #2 Waterline replaces 1.5-inch and 2-inch lines along Blue Lake Ave between Young St & Armstrong Ave. The 1.5-inch, 2-inch, and 4-inch pipes will be replaced along Armstrong Ave between Charles Ave and Blue Lake Ave. The 1.5-inch pipe will be replaced along Marjorie Ave. The 1.5-inch, 2-inch, and 4-inch pipes along Omalley Dr between Armstrong Ave and Rose Ave will also be replaced. This project will add in fire hydrants and will affect approximately 4655 L.F. of pipe. This project ranks 8 out of 39. Project M replaces waterline on O'Malley from Rose to Martin, Fountain from Martin to Lodi, Lodi from Fountain to Knox, Lodi from Chris to Palmira. This project replaces approximately 3,675 LF of undersized waterline. The Palmira project consolidates two parallel mains (4" and 8"), eliminating a uneeded assets and valving confusion. The project replaces approximately 1400 If of water main on Palmira from River to Reno. As of 2021, there are 16 leaks recorded along this stretch. When planning this project, also consider upsizing all or part of this line as a second feed across the Upper Truckee River, in coordination with the TRCD Johnson Meadow Restoration Project (not included in cost).

Need for Project	Operation and Maintenance Impacts			
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance			
Maintenance History				
Capacity/Hydraulic Deficiencies				

Reference Document

Waterline Prioritization Plan 2018	CIP No. 26
Project Funding	

Project Funding

Capita	l Impro	vemen	t Exper	diture	s (Millio	ons)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
			0.06		2.45	5.05					Design	\$55,000	27
			0.06		2.45	5.05					Construction	\$7,502,000	29
												4= === 000	

Total Capital Improvement Cost \$7,557,000

Funding Source: Capital

Project Location and Photos





Project Name: BIJOU #4 WATERLINE

Project Code:0Asset Owner/Dept:URWProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces most of the piping in the Ralph Zone. Bijou 4 will focus on upsizing the 4-inch pipe on Ralph Dr, Norma Dr, April Dr, Edna St, Bode Dr, and Anne St. This project area received fire hydrants on 4" mains in 2017. The project will consider reconnecting these relatively new fire hydrants to the new main as a cost-saving measure. This project will affect approximately 5,990 LF of pipe. This project ranks 14 out of 39. The project area currently excludes replacement of the 8" main on Pioneer Trail; the condition of this 8" main will be assessed when the scope is developed. Adding the 8" would fully rehabilitate the entire neighborhood.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance
Capacity/Hydraulic Deficiencies	
Proximity to Urban Wildland Interface	

Reference Document

		CID 11
Waterline Prioritization Plan 2018	1	CIP No. 27
Waterine i nontization i lan 2010	·	I CII 110. 27

Project Funding

Capita	l Impro	vement	t Expen	ditures	(Millio	ns)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
			0.06		1.52	3.13					Design	\$55,000	26
			0.06		1.52	3.13					Construction	\$4,645,000	29
												4	

Total Capital Improvement Cost \$4,700,000

Funding Source: Capital Project Location and Photos





Project Name: WILDWOOD #1/2 WATERLINE

Project Code:0Asset Owner/Dept:URWProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

There are five projects that have been identified in the Wildwood area that address fire flow and hydrant spacing deficiencies; this project combines Wildwood 1 and 2 for economy of scale. Wildwood 1 addresses fire flow deficiencies by improving the line sizes in the area. The 4-inch pipe along Regina Rd between Ski Run and Wildwood will be upsized. The 4-inch pipe along Needle Peak Rd from Pioneer to ¾ of the way to Ski Run will be upsized. The 6-inch pipe along Saddle Rd between Ski Run and Wildwood will be upsized. The 4-inch pipe along Pony Express Way will be upsized as well as the 2-inch pipe along Charlesworth Ct. This will affect approximately 4,269 LF of pipe. This project ranks 14 out of 39. Wildwood 2 focuses on pipe replacement such as the 4-inch pipe along Ruby Way between Wildwood and David Ln. Another 4-inch pipe will be replaced along David Ln between Ski Run and Wildwood. The 6-inch on Wildwood Ave will be replaced between Pioneer Trl and Ruby Way. The 4-inch pipe along Markofer Way will be replaced between Wildwood and Keller. A 6-inch pipe will be installed along Wildwood Ave and David Ln to create a loop for Ruby Ln. This project will affect approximately 4,465 LF of pipe. This project ranks 13 out of 39.

Asset Replacement/End-of-Life
Capacity/Hydraulic Deficiencies
Maintenance History
Proximity to Urban Wildland Interface

Operation and Maintenance Impacts
Reduced Reactionary Maintenance
Reduced Reactionary Maintenance

Reference Document

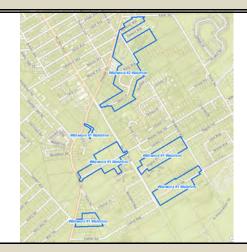
Waterline Prioritization Plan 2018 CIP No. 28

Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
						1.64	2 20				Design	\$60,000	27
						1.64	3.38				Construction	\$4,958,000	30
											_	4	

Total Capital Improvement Cost \$5,018,000

Funding Source: Capital Project Location and Photos





Project Name: MEYERS #1 WATERLINE

Project Code:0Asset Owner/Dept:URWProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project was originally conceived by the 2018 WL Prioritiziation Plan as an upsizing project of 3,095 If of water main to improve fire flows to new FHs on dead-end streets Crow, Mohawk, Arrowhead and Magua (off Hopi). However, during the 2018 Fire Hydrant installation project, several lines identified in GIS as 4" were found to be 6" Steel. There are few leaks in this area. Project scope has been reconceived as a loop-line project, adding 880 If of 8" water main, connecting the dead end of four blocks from Modoc to Mowhawk along an existing easement.

Need for Project	Operation and Maintenance Impacts
Capacity/Hydraulic Deficiencies	Addition of Assets
Proximity to Urban Wildland Interface	

Reference Document

20-21 CIP Planning CIP No. 29

Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
						0.17	0.35				Design	\$25,000	28
						0.17	0.55				Construction	\$488,000	30
												4	

Total Capital Improvement Cost \$513,000

Funding Source: Capital

Project Location and Photos



Comments

This project constructs with HOPI AREA GRAVITY MAIN REPLACEMENT (SEWER) Project for economy of scale.



Project Name: GARDNER MOUNTAIN #1/3 WATERLINE

Project Code: Asset Owner/Dept: URW 0 **Project Contact:** TBD Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

Gardner Mountain is deficient with respect to fire flow. For economy of scale, this project combines two project areas, previously defined as Gardner Mtn #1 and #3. Project GM1 replaces pipes along 8th St between Rodger Ave and Glorene Ave. More pipe will be replaced along Glorene Ave between 15th St and 10th St as well as along Rodger Ave between 10th St and midway to 5th St. Isolation valves will be installed as described in the FF TM. This will affect approximately 4,060 LF of pipe. This project ranks 29 out of 39. Project GM3 replaces 2-inch pipes along Sand Harbor Road and Taylor Way between Shady Lane and Gardner Street and between 10th Sreet and south portion of Gardner Street. The 4-inch pipe along 13th Street between Gardner Street and Clement Street will also

he replaced in this project. This will afffect approximately 4.350 LF of pipe. This project ranks 23 out of 39. **Need for Project Operation and Maintenance Impacts**

Asset Replacement/End-of-Life

Capacity/Hydraulic Deficiencies

Maintenance History

Proximity to Urban Wildland Interface

Reference Document

Waterline Prioritization Plan 2018 CIP No. 30

Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
							1.65	2 20			Design	\$60,000	28
							1.65	3.39			Construction	\$4,976,000	31
										_			

Total Capital Improvement Cost \$5,036,000

Reduced Reactionary Maintenance

Funding Source: Capital **Project Location and Photos**



Comments



Project Name: TAHOE SIERRA 2 WATERLINE

Project Code:0Asset Owner/Dept:URWProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project combines 3 project areas within the Tahoe Sierra neighborhood, previously defined as ST5, ST4 and ST1 into a single, larger project for economy of scale. Based on modeling, these projects are not driven by fire capacity but rather on pipe condition. ST5 upsizes existing 2.5-inch pipe along Lodi Ave as well as 4-inch pipe on Lodi Ave, Knox Ave, Bertha Ave, Osborne Ave, and Lindberg Ave. This will affect approximately 4,520 LF of pipe. This project ranks 27 out of 39. ST4 upsizes existing 1-inch and 4-inch pipe on Stockton Ave, Alma Ave, and Kubel Ave. This project will affect approximately 5,330 LF of pipe. This project ranks 25 out of 39. ST1 replaces the existing 4-inch pipe with upsized piping. It is approximated that this project will affect 6,260 LF of pipe. The project will take place along Fountain Avenue, Pinter Avenue, and Lodi Avenue. Project area overlaps Tahoe Sierra 1 on Fountain, so footage will be reduced by 2,380 ft during design. This project ranks 14 out of 39.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance
Maintenance History	

Reference Document

Waterline Prioritization Plan 2018 CIP No. 31

Project Funding

Capita	l Impro	vement	t Expen	ditures	(Millio	ns)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
									3.34	6.89	Design	\$65,000	30
									5.54	0.89	Construction	\$10,163,000	33

Total Capital Improvement Cost \$10,228,000

Funding Source: Capital
Project Location and Photos





Project Name: PIONEER VILLAGE WATERLINE

Project Code: Asset Owner/Dept: 0 **URW Project Contact:** TBD Project Management Dept: Eng

Project Description/ Benefits

10-yr Plan **Project Status:**

This project replaces approximately 5,000 LF of poor condition steel water main, identified by URW. Project includes the following streets: Murietta Dr, Friant Dr, Friant Ct, Bozeman Dr, Matheson Dr.

weed	TOT PI	oject	

Operation and Maintenance Impacts

Asset Replacement/End-of-Life

Reduced Reactionary Maintenance

Reference Document

Baseform 2022 CIP No. 32

Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
								1.01	2.08		Design	\$100,000	29
								1.01	2.06		Construction	\$2,983,000	32
										_		4	

Total Capital Improvement Cost \$3,083,000

Funding Source:

Project Location and Photos

Capital





Project Name: WASHOAN 1 (NOTTAWAY ACOMA) WATERLINE

Project Code:0Asset Owner/Dept:URWProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces approximately 5,300 LF of poor condition steel water main, identified by URW. Project includes the following streets: Nottaway Dr, Acoma Cir, Mingwe St, Semat St, Semat Ct.

Need for Project Operation and Maintenance Impacts

Asset Replacement/End-of-Life

Reduced Reactionary Maintenance

Reference Document

Baseform 2022 CIP No. 33

Project Funding

Capita	ital Improvement Expenditures (Millions) 24 25 26 27 28 29 30 31 32 33 34											Total	Year
FY 24	25	26	27	28	29	30		32	33	34	Planning		
							1.04	2.14			Design	\$100,000	30
							1.04	2.14			Construction	\$3,073,000	33

Total Capital Improvement Cost \$3,173,000

Funding Source: Capital

Project Location and Photos





Project Name: TAHOE VALLEY #1 & #2 (ELOISE & RUTH) WATERLINE

Project Code:0Asset Owner/Dept:URWProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The Tahoe Valley #1 &2 Project combines a previously prioritized waterline project (TV1) from the 2018 Waterline Replacement Program which prioritized based on pipe size, with a newly identified project (TV2) from the Baseform tool which prioritizes based on pipe condition.

The TV1 project area replaces the existing 4-inch, 6-inch, and 8-inch pipes with upsized piping. A new 6-inch line will be added along C Street. This project will affect approximately 4,860 LF of pipe. This project ranks 17 out of 39. The TV2 project area is in the vicinity of James Ave, and focuses on the replacement of primarily permastrand pipe, which is hard to repair when it fails.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance
Maintenance History	

Reference Document

Project Funding

Capital	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
										2 22	Design	\$100,000	31
										2.32	Construction	\$6,863,000	34

Total Capital Improvement Cost \$6,963,000

Funding Source: Capital Project Location and Photos





 Project Name:
 PIONEER TRAIL WATERLINE - GOLDEN BEAR TO PINE VALLEY

 Project Code:
 PTRLWL
 Asset Owner/Dept:
 URW

 Project Contact:
 New PM
 Project Management Dept:
 Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project installs approximately 11,300 LF of new 10-12" waterline on Pioneer Trail from Marshall Trail (Montgomery Estates Zone) to Susquehana (Pine Valley Zone). This project will loop the distribution system and improve fire flow to approximately 1000 customers in Pine Valley and Susquhana Zones. This project will install fire hydrants at 1000 ft spacing along the urban-wildland interface.

Need for Project	Operation and Maintenance Impacts
Reliability/Redundancy	Addition of Assets
Capacity/Hydraulic Deficiencies	
Proximity to Urban Wildland Interface	
Hydrant Spacing	

Reference Document

AM Planning (2019 Prop 211) CIP No. 35

Project Funding

C	Capital	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year	
	FY 24	25	26	27	28	29	30	31	32	33	34	Planning			
		1.70	3.49									Design	\$52,000	22	
		1.70	5.49									Construction	\$5,186,000	25	
															1

Total Capital Improvement Cost \$5,238,000

Funding Source: Capital

Project Location and Photos





Project Name: REPLACE PT/MARSHALL AND PT/KOKANEE PRV

Project Code:PRVPIOAsset Owner/Dept:PumpsProject Contact:New PMProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project consolidates two existing PRVs (PT/Kokanee and PT/Marshall), which were constructed in the late 1980's and are currently nearing the end of their useful lives. The stations are located in below grade vaults within the Pioneer Trail traffic lanes. Alternatives for the new PRV Station(s) will include consolidation into a new single station with parallel piping and above-ground enclosure for ease of ongoing operation. These PRVs are the sole source of water supply to approximately 330 customers in the Kokanee and Golden Bear Zones. The project will also connect Montgomery Estates Zone to the Meadow Lakes Neighborhood through a third domestic PRV at the Staion, providing a necessary secondary source of supply to the 100+ located in this area.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Ease of access
High Consequence of Failure	Safety Improvements
System Monitoring/Remote Control	Reduced Reactionary Maintenance
Reliability/Redundancy	

Reference Document

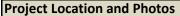
Water System Optimization Plan (WSOP) Project No. A8 CIP No. 36

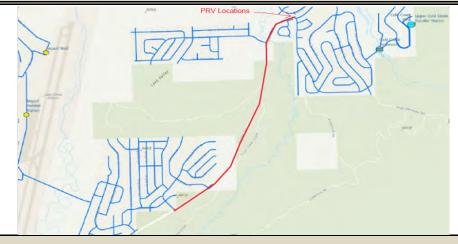
Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
		0.21	0.44								Design	\$15,000	24
		0.21	0.44								Construction	\$636,000	26
										_		4	

Total Capital Improvement Cost \$651,000

Funding Source: Capital







Project Name: NEW PRV AT WASHOAN-NADOWA

Project Code:PRVWASAsset Owner/Dept:PumpsProject Contact:New PMProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project will install a new pressure reducing valve station. This will be located at Washoan Blvd and Nadowa St at a normally closed valve (M33-047). It will allow water to move from Pine Valley Zone to the remote reaches of Country Club Zone. The north portion of Country Club Zone is fed from the south part of the zone through a single 6-inch diameter pipeline and from the Airport Booster Station which has limited capacity and is normally off. The Airport Booster is a small pump and does not provide much supply for fire flow. If the hydrants are opened at Airport then Onnontioga St pressures drop below 20 psi.

Need for Project	Operation and Maintenance Impacts
Capacity/Hydraulic Deficiencies	Addition of Assets
Asset Management	

Reference Document Water System Optimization Plan (WSOP) Project No. A18 CIP No. 37

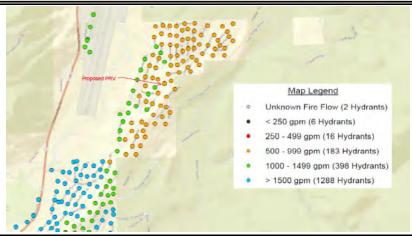
Project Funding

Ca	pital	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
F	Y 24	25	26	27	28	29	30	31	32	33	34	Planning		
	0.37											Design	\$15,000	22
).57											Construction	\$353,000	24
													¢260.000	

Total Capital Improvement Cost \$368,000

Funding Source: Capital

Project Location and Photos





NEW PRV AT SUSQUEHANA/PT (PINE VALLEY ZONE) Project Name:

Project Code: Asset Owner/Dept: Pumps Project Contact: New PM Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces "New PRV at Jicarilla/PT (Susquehana Zone)". By extending the main on Pioneer Trail to Susquehana Drive, the PRV will be able to feed Pine Valley Zone first, before dropping pressure again to Susquehana Zone. The new station will have fire and domestic PRVs and provide a redundant supply to Pine Valley Zone from Montgomery Estates via the new Pioneer Trail Waterline. The Pine Valley and Susquehana Zones are currently the most deficient in the system for fire flows, with all hydrants unable to flow 1000 gpm despite 6"

Need for Project	Operation and Maintenance Impacts
Capacity/Hydraulic Deficiencies	Addition of Assets
Reliability/Redundancy	

Reference Document

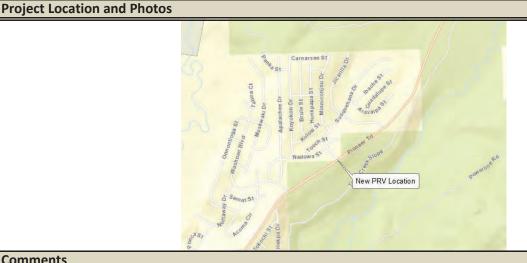
20-21 CIP Planning CIP No. 38

Project Funding

Capital	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
		0.21	0.42								Design	\$15,000	24
		0.21	0.42								Construction	\$612,000	26
												4	

Total Capital Improvement Cost \$627,000

Funding Source: Capital





Project Name: REGINA/DONNER WATERLINE

Project Code:0Asset Owner/Dept:URWProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project adds a new 350-ft waterline to tie the existing main on Needle Peak Rd to Donner Lane, tying together Heavenly Valley and Needle Peak pressure zones and eliminating two dead ends. This project also facilitates metering of 4 landlocked parcels from the front, which are currently served from the back.

Need for Project	Operation and Maintenance Impacts
System Efficiency	Addition of Assets
Reliability/Redundancy	
Water Quality	

Reference Document

Waterline Prioritization Plan 2018 CIP No. 39

Project Funding

Capital	Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.02			0.05	0.10							Design	\$22,000	25
0.02			0.05	0.10							Construction	\$152,000	27
												4	

Total Capital Improvement Cost \$174,000

Funding Source: Capital

Project Location and Photos



Comments

This project constructs with Needle Peak (Keller #5) PRV Replacement and Wildwood #3/5 Waterline.



Project Name: REPLACE NEEDLE PEAK #5 PRV

Project Code:0Asset Owner/Dept:URWProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project replaces the existing Needle Peak PRV (Keller #5), which has reached the end of its useful life and is located in an undersized below grade concrete vault, with a new PRV including instrumentation and communications. This PRV is currently the sole source of water delivery to approximately 165 customers.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance

Reference Document

Waterline Prioritization Plan 2018 CIP No. 40

Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.01			0.13	0.26							Design	\$11,000	25
0.01			0.13	0.26							Construction	\$362,000	27
										_		4	

Total Capital Improvement Cost \$373,000

Funding Source: Capital

Project Location and Photos



Comments

This project constructs with Regina/Donner Waterline and Wildwood #3/5 Waterline.



Project Name: DEAD END IMPROVEMENT PROGRAM

Project Code:0Asset Owner/Dept:URWProject Contact:TBDProject Management Dept:URW

Project Description/ Benefits

Project Status: 10-yr Plan

This program establishes a capital funding source for the URW Crew or a contractor to install flushpoints at individual dead ends, and if needed automatic flushing stations, with 3-5 locations being installed each year.

Need for Project	Operation and Maintenance Impacts
Water Quality	Addition of Assets
Regulatory Mandate	Increase Planned Maintenance
Asset Life Extension	

Reference Document

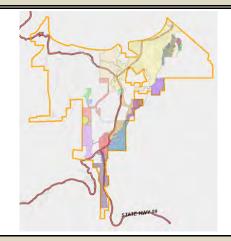
Project Funding

Capita	l Impro	vemen	t Exper	ditures	(Millio	ons)						Total	Year
FY 24	FY 24 25 26 27 28 29 30 31 32 33 34												
	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	Design	\$60,000	ALL
	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	Construction	\$536,000	ALL

Total Capital Improvement Cost \$596,000

Funding Source: Capital

Project Location and Photos





Project Name: DUAL MAIN ELIMINATION PROGRAM

Project Code:0Asset Owner/Dept:URWProject Contact:TBDProject Management Dept:URW

Project Description/ Benefits

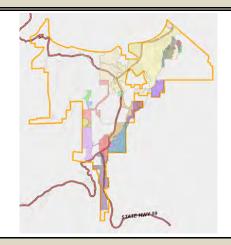
Project Status: 10-yr Plan

This program establishes a captial funding source for URW or Contractors to abandon redundant mains and transfer services onto the remaining waterline. The benefit of this program is that it streamlines the system and decreases the overall system footage, which abandoning some of the poorest condition mains without the cost of a full replacement. For the program assume our crews can abandon 3000LF for \$100k. A contractor would be closer to 1500 LF for \$100K, depending on road and paving requirements.

Need for Project Operation											tion and Maint	enance Impa	cts		
										•	Eliminates Asset				
	Asset Neplacementy Line-of-Life														
	ln										se Planned Mai	ntenance			
Refere	nce Do	cumen	t												
24-25 (CIP Plar	nning										CIP No.	42		
Project	t Fundi	ng													
Capita	l Impro	vemen	t Exper	ditures	(Millio	ons)						Total	Year		
FY 24	25	26	27	28	29	30	31	32	33	34	Planning				
	0.05	0.05	0.00	0.44	0.44	Design	\$103,000	ALL							
	0.05	0.05	0.06	0.11	0.14	Construction	\$923,000	ALL							
							-	Tot	al Capi	tal Imp	rovement Cost	\$1,026,000			

Funding Source: Capital

Project Location and Photos





Project Name: PT (LARCH TO SKI RUN) WATERLINE IMPROVEMENTS

Project Code:0Asset Owner/Dept:URWProject Contact:Brent GoligoskiProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The Pioneer Trail Waterline Improvements transfers all water services and fire hydrants between Larch Ave and Ski Run Ave on Pioneer Trail to the 18" Steel Main. The existing 8" main will be abandoned in place. This project is being prioritized for construction in coordination with the City's pedestrian improvements project scheduled for 2024.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance
Maintenance History	

Reference Document

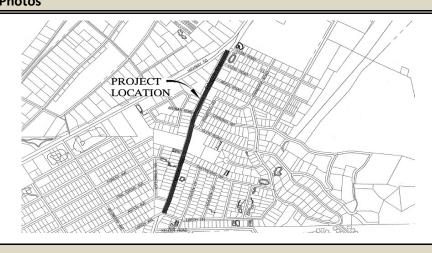
20-21 CIP Planning CIP No. 43

Project Funding

Capital	l Impro	vemen	t Expen	ditures	(Millio	ns)				Total	Year
FY 24	25	26	Planning								
0.12	0.26								Design	\$8,000	
0.12	0.26								Construction	\$376,000	26
								 		6204.000	

Total Capital Improvement Cost \$384,000

Funding Source: Capital Project Location and Photos



Comments



Project Name: FIELD COMMUNICATION UPGRADES PHASE 2

Project Code: SCDW01, TPTOWR Asset Owner/Dept: Pumps, Ops, Elec, IT

Project Contact: Julie Ryan Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project will focus on the improvements for Flagpole Tower (Tower 3), the radio control tower Control 1, and all upgrades needed at remote sites that will connect to Tower 3. Adds 5Ghz wireless ethernet radio and FIU at Flagpole. Connections over 173 MHz will be built out from remote sites near Tower 3. It is recommended that a ring configuration is created so that Flagpole Tower data is relayed to the Plant.

Need for Project	Operation and Maintenance Impacts				
Reliability/Redundancy	Addition of Assets				
System Monitoring/Remote Control	Reduced Reactionary Maintenance				
Asset Life Extension	Safety Improvements				
Emergency Response					

Reference Document

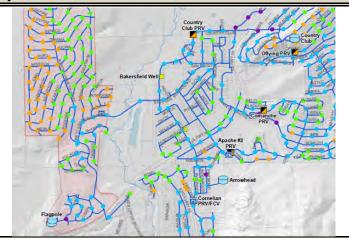
Communication Study Report (2018) CIP No. 44

Project Funding

Capita	l Impro	vemen	t Expen			Total	Year						
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.11											Design		
0.11											Construction	\$112,433	23
												4440 400	

Total Capital Improvement Cost \$112,433

Funding Source: Capital Project Location and Photos





Comments

FY22 funding will be rolled into FY23 for construction.



FIELD COMMUNICATION UPGRADES PHASE 3 **Project Name:**

Project Code: SCDW01 **Asset Owner/Dept:** Pumps, Ops, Elec, IT

Project Contact: Julie Ryan Project Management Dept: Eng

Project Description/ Benefits

10-yr Plan **Project Status:**

This project focuses on communication improvements for Keller Tower (Tower 1) and Area 3 which includes any upgrades at remote sites that will connect directly to Control 1. Adds 5 Ghz wireless ethernet and Flu at Keller. Connections over 173 MHz will be built out from remote sites near Tower 1.

Need for Project	Operation and Maintenance Impacts
Reliability/Redundancy	Addition of Assets
System Monitoring/Remote Control	Reduced Reactionary Maintenance
Asset Life Extension	Safety Improvements
Emergency Response	

Reference Document

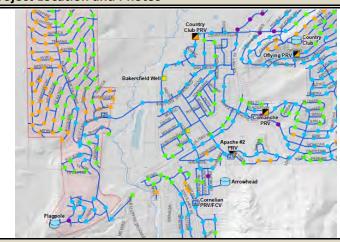
Communication Study Report (2018) CIP No. 45

Project Funding

Capita	l Impro	vemen	t Expen			Total	Year						
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.31											Design		
0.31											Construction	\$310,000	24
												¢240.000	

Total Capital Improvement Cost \$310,000

Funding Source: Capital **Project Location and Photos**





Comments



Project Name: GENERATOR AT KELLER

Project Code:0Asset Owner/Dept:PumpsProject Contact:Trevor CoolidgeProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project installs permanent emergency diesel generators at two critical water facilities. Keller Booster Station supplies the Keller Tanks (150,000 gallons pending construction in 2022), which is the sole source of supply to approximately 70 customers and backup supply to the Heavenly Zones.

Need for Project	Operation and Maintenance Impacts		
Emergency Response	Reduced Reactionary Maintenance		
Reliability/Redundancy	Addition of Assets		

Refere	nce Do	cument	t										
Water	Water System Optimization Plan (WSOP) Project No. A30												46
Project	t Fundi												
Capita	Capital Improvement Expenditures (Millions)											Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.12											Design	\$25,000	23
0.13											C	4472 000	

Total Capital Improvement Cost \$197,000

Construction \$172,000

Funding Source: Capital Project Location and Photos



Keller Booster Station

Comments

24



Project Name: GENERATOR AT PALOMA

Project Code: Asset Owner/Dept: Pumps Project Contact: Mark Seelos Project Management Dept: Eng

Project Description/ Benefits

10-yr Plan **Project Status:**

This project installs a permanent emergency diesel generator at a critical water facility. Paloma Well is currently backup supply to the main Stateline Zone producers (Al Tahoe and Bayview Wells). Bayview has no generator due to its service voltage. Al Tahoe has a diesel driven right-angle drive that can pump water during a power outage, but supplies no power to the accesory loads at the station (including disinfection). A generator is needed at Paloma to supply Max Day Demand for stateline during a power outage with Bayview out of service.

Need for Project	Operation and Maintenance Impacts				
Emergency Response	Reduced Reactionary Maintenance				
Reliability/Redundancy	Addition of Assets				

Refere	nce Do	cument	t										
Water System Optimization Plan (WSOP) Project No.													47
Project Funding													
Capital Improvement Expenditures (Millions)												Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.19											Design	\$25,000	23
0.19											Construction	\$172,000	24

Total Capital Improvement Cost \$197,000

Funding Source: Capital **Project Location and Photos**





Project Name: UPPER MONTGOMERY BOOSTER, FIRE PUMP, WATERLINE (1)

Project Code: COLDBS Asset Owner/Dept: Pumps, URW

Project Contact: TBD Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

Currently a small booster pump serves the Upper Montgomery Estates Zone. This station is dilapidated, and undersized based on modern facility standards. The elevation range in the Montgomery Estates Zone makes it difficult to maintain the Districts acceptable system pressure standards and to provide enough water for redundancy and fire protection. An engineering study is to be conducted to determine the best way to re-zone the Upper Montgomery Estates Zone with the larger Montgomery Estates Zone to achieve the most efficient zone break and provide reliable service to water customers. It is expected that the existing undersized and aged booster station will be replaced. This project will affect the entire Montgomery Estates Zone and Upper Montgomery Estates Zone.

Need for Project	Operation and Maintenance Impacts
Reliability/Redundancy	Reduced Reactionary Maintenance
Safety	Safety Improvements
Emergency Response	Improved Alarming/Data Collection

Reference Document

Duning to Franchisco	, ,		,	
Water System Optimization	n Plan (WSOP)	Project No.	A25,A29	CIP No. 48

Project Funding

Capita	l Impro	vemen	t Expen			Total	Year						
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
	0.12		0.51	1.06							Design	\$116,000	25
	0.12		0.51	1.06							Construction	\$1,570,000	27

Total Capital Improvement Cost \$1,686,000

Funding Source: Capital





H STREET ZONE BOOSTER, FIRE PUMP **Project Name:**

Project Code: HSTRBS Asset Owner/Dept: Pumps, Elec

Project Contact: TBD Project Management Dept: Eng

Project Description/ Benefits

10-yr Plan **Project Status:**

This project will aim to improve reliability and redundancy of the pressure zone and provide emergency water service by adding a check valve between Stateline and H-St Zone, allowing passive flow from Stateline Zone should the booster fail. H-St Booster Pump Station will be upgraded to meet water reliability goals by providing sufficient fire flow and redundancy. This station is undersized based on modern facility standards. Full station replacement will be considered. Adds a fire pump to H-Street Booster Station. The nearby upper reaches of Stateline Zone frequently experience service pressures below the District's minimum service standard (40 psi), the project will also consider the expansion of H street Zone and upsizing the booster pumps.

Need for Project	Operation and Maintenance Impacts				
Asset Management	Addition of Assets				
Emergency Response	Safety Improvements				
Capacity/Hydraulic Deficiencies	Reduced Reactionary Maintenance				
Reliability/Redundancy	Improved Alarming/Data Collection				

Reference Document

Water System Optimization Plan (WSOP)	Project No. A3, B15	CIP No. 49

Project Funding

Capita	l Impro	vemen	t Expen	ditures	(Millio	ns)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
	0.12		0.42	0.97							Design	\$116,000	24
	0.12		0.42	0.87							Construction	\$1,295,000	27

Total Capital Improvement Cost \$1,411,000

Funding Source: Capital **Project Location and Photos**









Project Name: AL TAHOE WELL REHABILITATION

Project Code: ATWRHB Asset Owner/Dept: Pumps, Elec

Project Contact: Mark Seelos Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The Al Tahoe Well is one of two primary water supplies for the Stateline Zone. The right-angle drive while electrically efficient has reached the end of its life. 2021 well efficiency testing suggests that there may be problems with the well casing, too. The well will be re-tested and likely inspected as a part of design. The project will replace the right-angle drive with a submersible pump and motor, replace the station's electrical gear, add station efficiency monitoring, add a diesel generator, and rehabilitate the well casing.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance
High Consequence of Failure	Safety Improvements
System Monitoring/Remote Control	Improved Alarming/Data Collection
Safety	
Reference Document	

Reference Document

	Prop 218 Planning/Water Efficiency Improvements (2018)		CIP No. 50
--	--	--	------------

Project Funding

Capita	l Impro	vemen	t Exper	diture	s (Millio	ons)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.38 0.41 0.99										Design	\$400,000	22	
0.56	0.41	0.99									Construction	\$1,400,000	25
	Total Capital Improvement Cost										\$1,800,000		

Funding Source: Capital

Project Location and Photos







Comments

This project is designed with Al Tahoe/Bayview Backup Power, and might construct together for economy of scale.

Page

50



Project Name: AL TAHOE / BAYVIEW BACKUP POWER

Project Code: ATWPWR Asset Owner/Dept: Pumps, Elec

Project Contact: Mark Seelos Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

Al Tahoe and Bayview wells are the two largest water sources in the Stateline (Main) Zone. Bayview currently has no generator due to its service voltage and limited space. Al Tahoe has a diesel driven right-angle drive that powers the well but not the station (including disinfection) during an outage. Al Tahoe has a large lot and is located only 1/4 mile from Bayview. Based on the close proximity of the two stations, this project will consider a single backup power supply for both stations, with a selector switch, allowing one or the other to be powered during an outage. Only with one of these wells, plus Paloma, the District will be able to meet Max Day Demand during an extended outage.

Operation and Maintenance Impacts
Addition of Assets
Reduced Reactionary Maintenance

Reference Document

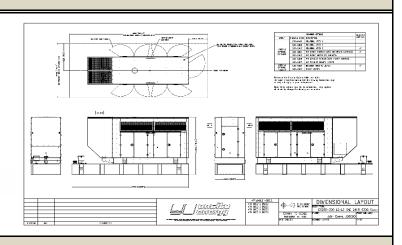
Project Funding

Capita	l Impro	vemen	t Exper	diture	s (Millio	ons)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.39	0.44	1.95	0.64								Design	\$550,000	22
0.59	0.44	1.95	0.04								Construction	\$3,000,000	25
								T-4-	I Canaita	- I I		\$2 EEN 000	

Total Capital Improvement Cost \$3,550,000

Funding Source: Capital
Project Location and Photos





Comments

This project is designed with Al Tahoe Well Rehab, and might construct together for economy of scale.



Project Name: TATA BOOSTER STATION AND TANK REPLACEMENT

Project Code: Asset Owner/Dept: Pumps Project Contact: TBD Project Management Dept: Eng

Project Description/ Benefits

10-yr Plan **Project Status:**

Tata Booster Station, constructed in 1968, is the oldest, non-redundant source of supply in the water system. It is critical to provide water to the Gardner Mountain Zone. The tank at this site was taken offline due to condition in the late 2000s, which is expected to have contributed to the large pressure swings observed in the Y Area of the Stateline Zone. The proposed project will replace electrical and mechanical equipment, and if needed make structural upgrades to the building. It will also remove and replace the existing water tank to stabilize pressures in the Stateline Zone.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance
Capacity/Hydraulic Deficiencies	

Reference Document

Tahoe Keys Assessment Phase 1/2 Report (2022)	CIP No. 52

Project Funding

Capita	l Impro	vemen	t Exper	nditure			Total	Year					
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
								1.35	2.77		Design	\$412,000	30
								1.55	2.77		Construction	\$3,709,000	32

Total Capital Improvement Cost \$4,121,000

Funding Source: Capital **Project Location and Photos**







Comments

This project needs to be completed before STPUD could provide continuous water supply to Keys or Lukins.



Project Name: DAVID LANE BOOSTER IMPROVEMENTS, GEN CONNECT

Project Code: DAVEBS **Asset Owner/Dept:** Pumps, Elec

Project Contact: TBD Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project focuses on improving the David Lane Booster station by replacing pumps, electrical, and the roof. This will improve system reliability and update old equipment. This will also improve the safety of the station by replacing pumps and electrical. It adds a generator hookup and repairs site improvements.

Need for Project								Operation and Maintenance Impacts						
Asset Replacement/End-of-Life								Addition of Assets						
System Monitoring/Remote Control								Reduced Reactionary Maintenance						
Emergency F	mergency Response							Improved Alarming/Data Collection						
Maintenance History														
Reference D	ocumen	t												
Water Efficiency Improvements (2018)/WSOP									A30	CIP No. 53				
Project Fund	ing													
Capital Improvement Expenditures (Millions)										Total	Year			
FY 24 25	26	27	28	29	30	31	32	33	34	Planning				

Total Capital Improvement Cost \$1,627,000

Funding Source: Capital





Project Name: FLAGPOLE ZONE IMPROVEMENTS

Project Code: Asset Owner/Dept: URW, PUMPS 0

TBD Project Contact: Project Management Dept: Eng

Project Description/ Benefits

10-yr Plan **Project Status:**

This project lowers the pressures in a very high pressure area of the water system (>140 psi). The District's level of service criteria for maximum system pressure is 120 psi. The plan presented in the WSOP, which is the basis for the budget, installs a pressure reducing valve inside the Flagpole Booster Station and 1700 LF of new water main to tie in the PRV to the surrounding streets. A more robust solution that will be considered would install one PRV at Normuk and one at North Upper Truckee, and would loop the dead end lines in the area.

Need for Project	Operation and Maintenance Impacts			
Asset Life Extension	Reduced Reactionary	Reduced Reactionary Maintenance		
	Increase Planned Maintenance			
Reference Document				
Water System Optimization Plan (WSOP)	Project No.	C12	CIP No. 54	
Project Funding				

Capital Improvement Expenditures (Millions) **Total** Year **Planning** FY 24 27 28 29 30 31 32 33 34 25 26 Design \$92,000 27 0.35 0.71

> \$1,057,000 **Total Capital Improvement Cost**

Construction

\$965,000

28

Funding Source: Capital

Project Location and Photos



Comments

2020 Project Estimate has been escalated 10 yrs at 3% per year.

54



 Project Name:
 LOWER COLD CREEK BOOSTER ELECTRICAL IMPROVEMENTS

 Project Code:
 0
 Asset Owner/Dept:
 Pumps

 Project Contact:
 TBD
 Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The Lower Cold Creek Booster Station is the primary supply station for Montgomery Estates, Upper Montgomery Estates, Kokanee and Golden Bear Zones. Station piping and metering was upgraded in 2010 in conjunction with the Filter Plant demolition project. The existing electrical systems at the station are a mix of ages and conditions. The station electrical systems were inspected in 2022 in conjunction with the Water Field Stations Electrical Assessment (WSC/HDR); the main breaker was found to be faulty and was replaced by Staff. The main breaker panel (Bryant) has been reported to have caught fire in the past.

Need for Project	Operation and Maintenance Impacts			
Asset Life Extension				
Reference Document				
Electrical Testing and Inspection Summary 2023			CIP No. 55	
Project Funding				

Capital	Impro	vemen	t Exper		Total	Year							
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
									0.54	1.11	Design	\$200,000	32
									0.54	1.11	Construction	\$1,446,000	33
												44 545 000	

Total Capital Improvement Cost \$1,646,000

Funding Source: Capital Project Location and Photos









Comments



Project Name: CORNELIAN AND ELKS CLUB PLC REPLACEMENT

Project Code:0Asset Owner/Dept:ElecProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project will modernize control systems at two stations (one well and one water booster station) containing aging and unreliable programmable logic controllers (PLCs).

Need for Project	Operation and Maintenance Impacts

Asset Replacement/End-of-Life Reduced Reactionary Maintenance

Reference Document

24-25 CIP Planning		CIP No. 56
--------------------	--	------------

Project Funding

Capita	l Impro	vemen	t Exper	diture	s (Millio			Total	Year				
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
					0.46						Design	\$25,000	28
					0.46						Construction	\$439,000	29

Total Capital Improvement Cost \$464,000

Funding Source: Capital Project Location and Photos





Comments



Project Name: WELLS ASSET MANAGEMENT PROGRAM

Project Code:WELLMMAsset Owner/Dept:PumpsProject Contact:Mark SeelosProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The District manages eleven active wells and three standby wells to supply water to over 14,000 service connections. These wells range in age from 20 to 70 years, and the condition of many is unknown. This program will include downhole equipment removal, pump testing and maintenance, video inspection, mechanical and chemical cleaning, and well redevelopment. Results of the downhole inspections will be used to inform well rehabilitation if necessary. This will ensure system reliability by minimizing reactive maintenance. This program will be included on a pertpetual basis in Years 2-10 of the Ten-Year Plan. When a well gets to Year 1, it will be moved out of the funding for the program into its own project for tracking. The program envisions the wells will be assessed in the following order (after South Upper Truckee in Year 1): Sunset, Helen, Airport, Bayview, Glenwood, Bakersfield, Valhalla, Elks Club, Arrowhead.

Need for Project	Operation and Maintenance Impacts				
Asset Management	Increase Planned Maintenance				
Reliability/Redundancy	Reduced Reactionary Maintenance				

Reference Document	
24-25 CIP Planning	CIP No. 57

Project Funding

Capita	l Impro	vemen	t Exper	diture	s (Millio			Total	Year				
FY 24	25	26	27	28	29	30	31	32	33	34	Planning	\$3,977,000	ALL
		0.23	0.38	0.48	0.49	0.31	0.50	0.41	0.54	0.62	Design		
		0.23	0.56	0.46	0.49	0.51	0.50	0.41	0.54	0.02	Construction		ALL

Total Capital Improvement Cost \$3,977,000

Funding Source: Capital Project Location and Photos





Project Name: PALOMA WELL REHAB

Project Code:21PLMAAsset Owner/Dept:PumpsProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project repairs a hole in the well casing that was discovered whent he well discharged large volumes of sand into the distribution system during annual well testing in October 2020. The project also downsizes the pump and motor of this well, as needed to accommodate the new liner. This well serves as a supplement to the District's two largest and most important sources in the Stateline Area (Bayview and Al Tahoe).

Need for Project	Operation and Maintenance Impacts
_	

Asset Life Extension

Reference Document

Other	CIP No. 58

Project Funding

Capital	l Impro	vemen	t Expen		Total	Year							
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.24											Design	\$50,000	20
0.24											Construction	\$600,000	22 to 23

Total Capital Improvement Cost \$650,000

Funding Source: Capital Project Location and Photos





Comments

Expect construction to be complete Fall 2023.



Project Name: BAYVIEW WELL VFD AND CONTROL SYSTEM UPGRADES

Project Code: BAYVFD **Asset Owner/Dept:** Pumps, Elec

Project Contact: Mark Seelos Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This well, initially constructed in 2007, is overdue for 10-year maintenance of its electrical and control systems. This project will hire specialists to perform the maintenance on this well, the District's primary source of supply in the Stateline Zone. This project will begin after Paloma well rehabilitation and generator installation are both complete, and before Al Tahoe Well is taken offline for rehabilitation.

Need f	or Proj	ect					_			Operation and Maintenance Impacts					
Asset L	ife Exte	ension								Reduc	ced Reactionar	y Maintenanc	e		
Refere	nce Do	cument	:												
* Choo	se Best	Optior	1									CIP No.	. 59		
Project	t Fundi	ng													
Capita	l Impro	vemen	t Expen	ditures	(Millic	ns)			•	•		Total	Year		
FY 24	25	26	27	28	29	30	31	32	33	34	Planning Design				

Total Capital Improvement Cost \$132,000

Funding Source: Capital Project Location and Photos









_	_	 m	-	-	•



Project Name:AIRPORT WELL TREATMENT AND ELECTRICAL REPLACEMENTProject Code:0Asset Owner/Dept:PumpsProject Contact:TBDProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The airport well was originally constructed in 1979 and can produce nearly 1000 gpm. The Airport Well was moved from Active status to Emergency status in the late 2000s, when the arsenic standard was lowered in California. This well had been one of only two sources of supply for the Stateline Zone in the Y Area west of the Upper Truckee River. Removing it from service has contributed to large pressure swings in the Y Area. The project will install arsenic treatment, replace mechanical and electrical components, and if needed rehabilitate the well and make structural upgrades.

Need for Project	Operation and Maintenance Impacts
Asset Replacement/End-of-Life	Reduced Reactionary Maintenance
Capacity/Hydraulic Deficiencies	Addition of Assets
Water Quality	

Reference Document

Due in at Franchisco	511 1151 52
Tahoe Keys Assessment Phase 1/2 Report (2022)	CIP No. 62

Project Funding

Capita	l Impro	vemen	t Exper		Total	Year							
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
									1.11	2.28	Design	\$338,000	30
									1.11	2.20	Construction	\$3,043,000	33

Total Capital Improvement Cost \$3,381,000

Funding Source: Capital

Project Location and Photos



Comments

This project needs to be completed before STPUD could provide continuous water supply to Keys or Lukins.



Project Name: SUT WELL REHAB

Project Code:0Asset Owner/Dept:PumpsProject Contact:Mark SeelosProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The South Upper Truckee Well #3 was installed in 2007 with a corrosion control system. Approximately 7 years later, the motor began to megger low, and indication of corrosion on the electrical system between the submersible pump and the motor up top. Repairs to the mechanical system at that time allowed the District to resume service. In 2022, the motor began to megger low again, and so this project will make electrical repairs to combat corrosion.

Need fo											Operation and Maintenance Impacts					
Asset L	ife Exte	ension														
Referei	nce Do	cumen	t													
* Choo	se Best	t Optior	า									CIP No.	63			
Project	Fundi	ng														
Capital	Capital Improvement Expenditures (Millions)											Total	Year			
FY 24	25	26	27	28	29	30	31	32	33	34	Planning					

Capital	impro	vemen	t Exper	iditure	S (IVIIIII)	(פווכ						iotai	rear
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.15 0.19										Design			
0.15	0.19										Construction	\$336,000	24
		\$226,000											

Total Capital Improvement Cost \$336,000

Funding Source: Capital Project Location and Photos



Comments

In the future, these repairs will be anticipated on a 7 year cycle.



Project Name: WATER BOOSTER STATION AND WELL MONITORING

Project Code: 0 **Asset Owner/Dept:** Pumps, Elec

Project Contact: Julie Ryan Project Management Dept: Eng Pumps

Project Description/ Benefits

Project Status: 10-yr Plan

Additional monitoring equipment will be installed at multiple well and booster station sites that are not being upgraded through other CIP projects. The equipment will monitor pressure, temperature, and vibration. This is an ongoing asset management program, to provide continual funding for replacement and upkeep of monitoring instruments at water stations.

Need for Project	Operation and Maintenance Impacts
System Monitoring/Remote Control	Addition of Assets
System Efficiency	Increase Planned Maintenance
Asset Life Extension	Improved Alarming/Data Collection

Prop 218 Planning CIP No. 64			<i>'</i>
Prop 218 Planning CIP No. 64		Ţ	
	Prop 218 Planning		CIP No. 64

Project Funding

Reference Document

Capita	l Impro	vemen	t Exper	diture	s (Millio	ons)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
	0.52 0.54 0.13 0.14 0.14 0.14 0.15 0.15 0.16												
	0.52 0.54 0.13 0.14 0.14 0.15 0.15 0.16 Const											\$2,065,000	26+
	Total Capital Improvement Cost												

Funding Source: Capital

Project Location and Photos



Comments



Project Name: WATER EFFICIENCY IMPROVEMENTS

Project Code: 0 **Asset Owner/Dept:** Pumps, Elec

Project Contact: Julie Ryan Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project installs pump and power monitoring equipment at 6 wells: South Upper Truckee, Sunset, Valhalla, Bayview, Bakersfield, and Al Tahoe. This project has completed 90% Design.

Need for Project	Operation and Maintenance Impacts
Asset Life Extension	Addition of Assets
System Efficiency	Increase Planned Maintenance
System Monitoring/Remote Control	Improved Alarming/Data Collection

Reference Document

Water Efficiency Improvements (2018) CIP No. 65

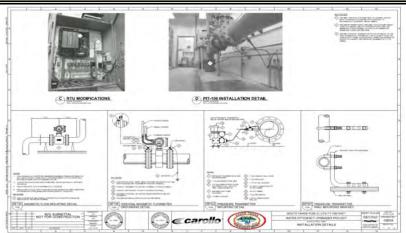
Project Funding

Capital	Impro	vemen	t Expen			Total	Year						
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
				0.36	0.75						Design	\$50,000	27
				0.56	0.75						Construction	\$1,064,000	28
												ć4 444 000	

Total Capital Improvement Cost \$1,114,000

Funding Source: Capital

Project Location and Photos





Project Name: TANK COATINGS (STATELINE NO. 1)

Project Code:0Asset Owner/Dept:PumpsProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

Project includes recoating both interior and exterior of this 1.3M gallon tank. Tank was last coated in 1994. The coating has failed, putting the tank at risk for structural degradation, and increasing the potention for water quality problems. The maximum expected life of a tank coating in Tahoe conditions is 20 years.

Need for Project	Operation and Maintenance Impacts
Asset Life Extension	Reduced Reactionary Maintenance
Asset Management	

Reference Document

20-21 CIP Planning CIP No. 66

Project Funding

Capita	apital Improvement Expenditures (Millions)											Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
	0.35	0.70									Design	\$35,000	25
	0.55	0.70									Construction	\$1,014,000	25
	Total Capital Improvement Cos									ovement Cost	\$1,049,000		

Funding Source: Capital
Project Location and Photos





Comments



Project Name: TANK COATINGS (STATELINE NO.2)

Project Code:0Asset Owner/Dept:PumpsProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

Project includes recoating both interior and exterior of this 2.3M gallon tank. Tank was last coated in 1994. The coating has failed, putting the tank at risk for structural degradation, and increasing the potention for water quality problems. The maximum expected life of a tank coating in Tahoe conditions is 20 years.

Need for Project	Operation and Maintenance Impacts
Asset Life Extension	Reduced Reactionary Maintenance
Asset Management	

Reference Document

20-21 CIP Planning		CIP No. 67
!!	<u> </u>	

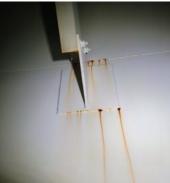
Project Funding

Capita	Capital Improvement Expenditures (Millions)											Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
	0.03	0.60	1.23								Design	\$35,000	24
	0.03	0.60	1.23								Construction	\$1,814,000	26

Total Capital Improvement Cost \$1,849,000

Funding Source: Capital Project Location and Photos







Comments



TANK COATINGS (GARDNER NO. 2) Project Name:

Project Code: Asset Owner/Dept: TNKWTR Pumps Project Contact: Megan Colvey Project Management Dept: Eng

Project Description/ Benefits

Project Status: 10-yr Plan

Project includes touchup on interior and recoating exterior of this 212K gallon tank in 2024. The tank was originally constructed in 1998 and the interior was recoated in 2012. The maximum expected life of a tank coating in Tahoe conditions is 20 years.

Operation and Maintenance Impacts
Reduced Reactionary Maintenance

Reference Document 20-21 CIP Planning CIP No. 73 **Project Funding** Capital Improvement Expenditures (Millions) Year **Total** FY 24 25 26 27 28 29 30 31 32 33 34 Planning

Design 0.04 0.08 Construction \$37,000 24

\$37,000 **Total Capital Improvement Cost**

Funding Source: Capital **Project Location and Photos**





Comments



Project Name: TANK COATINGS (XMAS VALLEY)

Project Code:24TKTUAsset Owner/Dept:PumpsProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

Project includes recoating exterior of this 185K gallon tank in 2024. The tank was originally constructed in 1998 and the interior was recoated in 2012. The exterior coating of this tank has failed. The maximum expected life of a tank coating in Tahoe conditions is 20 years.

Need for Project	Operation and Maintenance Impacts
Asset Life Extension	Reduced Reactionary Maintenance
Asset Management	

Reference Document

|--|

Project Funding

Capita	apital Improvement Expenditures (Millions)										Total	Year	
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
	0.12										Design		
	0.12										Construction	\$115,000	24

Total Capital Improvement Cost \$115,000

Funding Source: Capital Project Location and Photos





Comments



Project Name: TANK COATINGS (COLD CREEK)

Project Code:24TKTUAsset Owner/Dept:PumpsProject Contact:Megan ColveyProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

Project includes touchup on interior and recoating exterior of this 480K gallon tank in 2025. The tank was originally constructed in 1980 and the interior was recoated in 2012. The maximum expected life of a tank coating in Tahoe conditions is 20 years.

Need for Project	Operation and Maintenance Impacts
Asset Life Extension	Reduced Reactionary Maintenance
Asset Management	

Reference Document

24-25 CIP Planning CIP No. 75

Project Funding

Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)						Total	Year	
FY 24	25	26	27	28	29	30	31	32	33	34	Planning			
	0.18										Design			
	0.18										Construction	\$176,000	24 and 33	

Total Capital Improvement Cost \$176,000

Funding Source: Capital Project Location and Photos





Comments

Page

75



Project Name: TANKS ASSET MANAGEMENT PROGRAM

Project Code: TNKWTR Asset Owner/Dept: Eng **Project Contact:** Megan Colvey **Project Management Dept:** Pumps

Project Description/ Benefits

10-yr Plan **Project Status:**

This project implements an ongoing water and sewer tank management program, including dry inspections/repairs on a five-year cycle and full interior/exterior recoating on an anticipated 20-year cycle (if inspections warrant). The goals is for the program to be deployed by Pumps and HM with support from Engineering to hire contractors for more substantial repairs (ie., coating touchup in headspace). This program will be included on a pertpetual basis in Years 2-10 of the Ten-Year Plan. When a tank gets to Year 1, for touchup or full re-coat, it will be moved out of the funding for the program into its own project for tracking.

Need for Project	Operation and Maintenance Impacts
Asset Management	Increase Planned Maintenance
Asset Life Extension	
Water Quality	

Reference Document

20-21 CIP Planning CIP No. 76

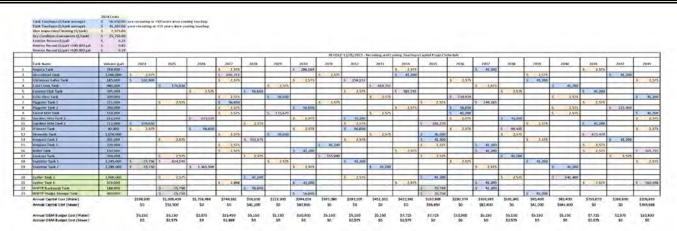
Project Funding

Capital	l Impro	vemen	t Expen		Total	Year							
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
		0.18	0.58	0.83	0.57	0.46	0.52	0.66	0.37	0.51	Design		
		0.10	0.56	0.65	0.57	0.40	0.52	0.00	0.57	0.51	Construction	\$4,667,000	ALL

Total Capital Improvement Cost \$4,667,000

Funding Source: Capital

Project Location and Photos



Comments

76



Project Name: ADMIN HVAC UPGRADES

Project Code:0Asset Owner/Dept:HM, ElecProject Contact:Julie RyanProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

The HVAC System in the Admin Building has web-based controls on a stand-alone system. This project will develop and execute upgrades to the SCADA system to bring in select data from this system. Scope may also include addition/replacement of instruments and HVAC system, as needed to support monitoring and control.

I	Need for Project	Operation and Maintenance Impacts
,	System Monitoring/Remote Control	Reduced Reactionary Maintenance

Reference Document

20-21 CIP Planning	CIP No. 77

Project Funding

Capita	pital Improvement Expenditures (Millions)											Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.03											Design		
0.03											Construction	\$31,000	24

Total Capital Improvement Cost \$31,000

Funding Source: Capital Project Location and Photos





Comments



Project Name: LOOKOUT TANK ACCESS ROAD REPAIRS

Project Code:LOOKRDAsset Owner/Dept:PumpsProject Contact:Trevor CoolidgeProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This tank site is currently accessed by a rough forest road that winds behind the neighborhood. During the 2007 Angora Fire response and again during the 2021 Caldor Fire response, this road was severely damaged by fire protection activities. This project will construct a steep but stable access road from the street directly to the tank, accross the tank parcel.

Need for Project	Operation and Maintenance Impacts
Proximity to Urban Wildland Interface	Ease of access
Emergency Response	

Reference Document

*	Choose Best Option	CIP No. 78
_		

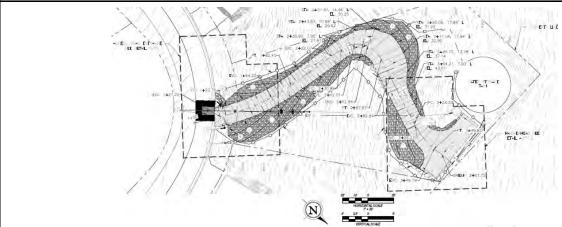
Project Funding

Capita	l Impro	vemen	t Exper	nditure	s (Millio	ons)						Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning		
0.56											Design	\$85,000	
0.56											Construction	\$482,000	24

Total Capital Improvement Cost Adjust Budget Totals

Funding Source: Capital

Project Location and Photos



Comments



Project Name: REPLACE NUKE GAUGE

Project Code:0Asset Owner/Dept:EngProject Contact:Trevor CoolidgeProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project provides a budget to replace the off-brand nukclear gauge with a new gauge that will be the same brand as the rest. The gauges are used by the Engineering Department, Customer Service and Operations crews to check compaction of backfill soil. The funding will be split 50/50 between Water and Sewer.

Need for Project	Operation and Maintenance Impacts

Asset Replacement/End-of-Life

Reference Document

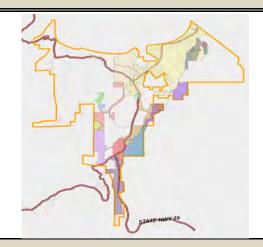
Project Funding

Capita	pital Improvement Expenditures (Millions)											Total	Year
FY 24	25	26	27	28	29	30	31	32	33	34	Planning	\$10,000	
	0.01										Design		
	0.01										Construction		N/A

Total Capital Improvement Cost \$10,000

Funding Source: Capital

Project Location and Photos



Comments



Project Name: CMMS IMPLEMENTATION

Project Code:CMMSRPAsset Owner/Dept:EngProject Contact:Steve CaswellProject Management Dept:Eng

Project Description/ Benefits

Project Status: 10-yr Plan

This project provides a budget to replace the District's work order system, which is the backbone of the District's Asset Management program and is used by both Operations and Engineering. The current platform has been in place for over 15 years, and the vendor is moving away from supporting linear assets. A team of District staff, with support from an outside consultant experienced in helping utilities with this selection, have reviewed over a dozen alternative products and as of January 2024 have narrowed the selection to 2. The budget will be used to procure and implement the new tool in 2024 and 2025. The funding will be split 50/50 between Water and Sewer.

Need f	eed for Project									Operation and Maintenance Impacts				
	Asset Management									<u> </u>	ved Alarming/D			
Reference Document														
24-25 (CIP Plar	nning								CIP No. 80				
Project	t Fundi	ng												
Capita	Impro	vemen	t Exper	nditures	(Millio	ons)						Total	Year	
FY 24	25	26	27	28	29	30	31	32	33	34	Planning	\$258,000		
	0.20										Design			
	0.26										Construction		N/A	
						-	-	Tot	al Capi	ital Imp	rovement Cost	\$258,000	-	
Fundin	g Sour	ce:	Capita	l								•		

Project Location and Photos



Comments