



City of St. Helena
Water and Wastewater Rate Study Advisory
Committee
Regular Meeting
Fire Department Training Room, 1500 Main
St., St. Helena
Thursday, December 8, 2022 @ 9:00 AM

PLEASE NOTE: Any person who wishes to speak regarding an item on the agenda or make a comment under the "Oral Communication" portion of the agenda may do so, but please observe the time limit of four minutes.

Page

1. CALL TO ORDER
2. ROLL CALL
Chair: Mario Trinchero
Vice Chair: Walter Nirenberg
Committee Members: Arlene Corsetti, Garry Rose, Sean Maher, Mark Smithers and Peter McCrea.
Staff Liaison: Mandy Kellogg, Assistant Administrative Services Director
3. PUBLIC FORUM:
An opportunity for the public to directly address the Committee on items of interest to the public that are not listed on the agenda. Any person addressing the Committee should provide his or her name and address, and limit comments to four minutes. Because of restrictions imposed by **the Brown Act, the Committee may not engage in substantive discussion, nor take action on matters not described on the agenda.**
4. REPORTS BY STAFF AND BOARD
Reports by staff and/or Committee on items of general interest. Brief questions for clarification may be posed and answered, and Committee may request that items be placed on a future agenda. Except under certain circumstances, **the Brown Act prohibits any other discussion or action by the Water and Wastewater Rate Study Advisory Committee.**
5. OLD BUSINESS:
 - 5.1. Review and discuss Q&A provided at the 11/9/22 Water and Wastewater Rate Study Advisory Committee Meeting 3
Recommendation:
Review and discuss.
[Q and A](#)
 - 5.2. Review and discuss updates to financial plan assumptions. 5 - 15
Recommendation:
Review, discuss and provide feedback.
[St. Helena RSAC Financial Plan Assumptions Review 12-8-22](#)
 - 5.3. Detailed Presentation of Water & Wastewater Capital Improvement Program: What We're Proposing to Do & When 17 - 49

Recommendation:
Review and discuss.

[Water & Wastewater Capital Improvement Program 12-8-22](#)

6. ADJOURNMENT

The next regular Water and Wastewater Rate Study Advisory Committee meeting is scheduled for TBD at 9:00 a.m.

This agenda was posted at City Hall, 1572 Railroad Avenue, and at Fire Department Training Room, 1500 Main St., California on December 2, 2022.

Cindy Tzafoopoulos, City Clerk

In Compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please call the City Clerk's Office (707) 968-2742. Notification 72 hours prior to the meeting as required by Section 202 of the Americans with Disabilities Act will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

Future Agenda Item

1. **Can non-city water customers be charged a higher rate for water?** Per California Constitution Article 13D, water rates imposed must meet several requirements, one of which provides that the amount of a fee or charge imposed upon on any customer shall not exceed the proportional cost of the service attributable to the parcel. What this means is that the City cannot charge a higher rate for a customer based on location unless it can be justified that it costs more to deliver water to a particular geographical region. The City is currently undergoing a rate study in which this is being evaluated.
2. **Why can't we cancel the water agreements (50) that provide water to customers outside the City's boundaries?** The City has water agreements with certain customers located outside the City limits that have been City customers for many years, dating to a time before the City's current policy of not providing new water service to customers outside the City limits. The water agreements are not the basis for City's water service to these customers, they instead impose a limitation on water usage to no more than the customers historic levels of use. The City has had a long standing policy of requiring historic customers outside of the City limits to enter into water agreements as a condition of any new development, to ensure that the new development would not increase water usage beyond historic levels. If the water agreements were cancelled, these customers would still receive City water, and would not be subject to the limitations set forth in the water agreements. This would not be a desirable outcome for the City or its water system.
3. **If we cannot cancel the water agreements, can we charge them a higher rate than residential customers?** The vast majority of the City's water agreements are agreements with historic water customers outside of the City, which agreements were entered into in order to limit water usage to historic levels. For these customers, a higher rate cannot be charged for water use simply because a water agreement is in place. Per California Constitution Article 13D, water rates imposed must meet several requirements one of which maintains the amount of a fee or charged imposed upon on any customer shall not exceed the proportional cost of the service attributable to the parcel. All water agreement customers pay the same per unit price of water as every other potable water customer in the St. Helena Water Enterprise system. The City does have a small number of agreements for raw (untreated) water, which is sold based on a negotiated rate. The City does have more flexibility to negotiate a different rate for these types of agreement because this water is not provided as part of the City's water system. The City could take a similar approach when providing recycled water as that program develops. However, must of the parties with water agreements are historic customers of the City's water system and are subject to the same rates as all other customers.

City of St. Helena

Water and Wastewater Rate Study

Rate Study Advisory Committee Meeting – December 8, 2022



New Connection and Water Demand Assumptions



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Growth Assumptions – Water and Wastewater

- Based on the General Plan EIR an assumed 214 additional Single Family Residential (SFR) units and 169 additional Multi-Family Residential (MFR) units will be added between 2018-2040
 - › This equates to an annual growth rate of 0.5% for SFR, and 0.9% for MFR
 - All other classes assumed 0% growth

2018-2040	Total Units	Annual Units	
22 years			
SFR	214	10	SFR / year
MFR	169	8	MFR / year
Class	FY 2023	FY 2023 + Annual New Connections	Growth Percent
SFR	2,041	2,051	0.5%
MFR	900	908	0.9%

Growth Assumptions – Water and Wastewater

- Based on the General Plan EIR we assume 214 additional Single Family Residential (SFR) units and 169 additional Multi-Family Residential (MFR) units between 2018-2040
 - › This equates to an annual growth rate of 0.5% for SFR, and 0.9% for MFR
 - All other classes are assuming 0% growth

Description	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Account Growth						
SFR	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
MFR (Dwelling Units)	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
Commercial	0%	0%	0%	0%	0%	0%
Industrial	0%	0%	0%	0%	0%	0%
Landscape Irrigation	0%	0%	0%	0%	0%	0%
Raw Water	0%	0%	0%	0%	0%	0%
Fire Service	0%	0%	0%	0%	0%	0%

Growth Assumptions – Water and Wastewater

- Total Connections* by Customer Class
 - › *Dwelling Unit shown for MFR

Customer Class	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
SFR	2,041	2,051	2,061	2,070	2,080	2,090	2,100	2,110	2,120	2,130
MFR (Dwelling Units)	908	915	923	931	939	947	955	963	972	972
Commercial	313	313	313	313	313	313	313	313	313	313
Industrial	27	27	27	27	27	27	27	27	27	27
Landscape Irrigation	41	41	41	41	41	41	41	41	41	41
Raw Water	0	0	0	0	0	0	0	0	0	0
Fire Service	84	84	84	84	84	84	84	84	84	84
Total	2,670	2,681	2,692	2,704	2,715	2,726	2,738	2,749	2,761	2,772

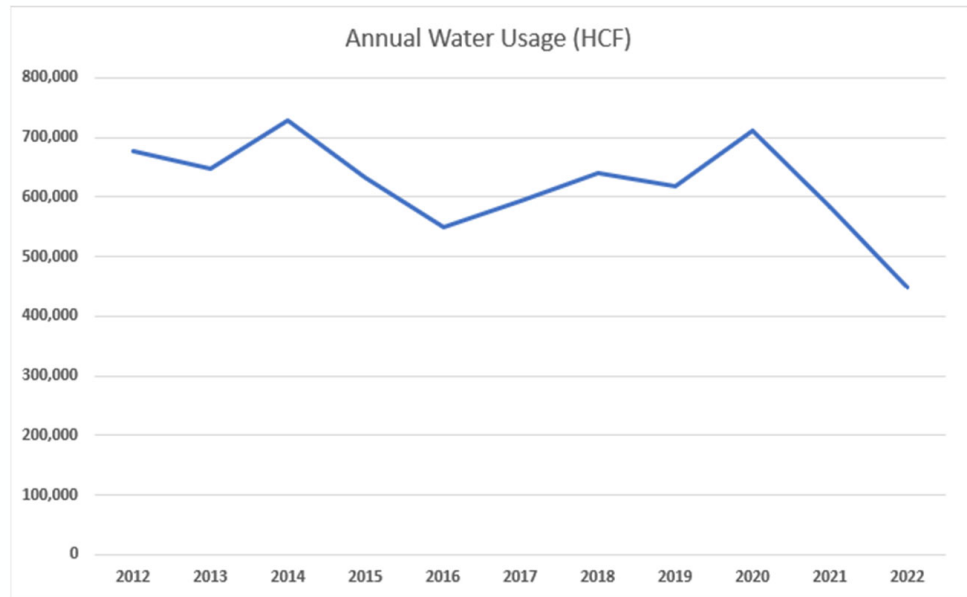
Projected Water Connections, by Meter Size

Meter Size	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
	Actuals	Projected	Projected	Projected	Projected	Projected
5/8"	2,002	2,011	2,020	2,029	2,038	2,047
3/4"	296	297	299	300	302	303
1"	123	123	124	124	125	125
1 1/2"	70	70	71	71	71	71
2"	63	63	63	63	64	64
3"	8	8	8	8	8	8
4"	11	11	11	11	11	11
6"	13	13	13	13	13	13
8"	0	0	0	0	0	0
Total	2,586	2,597	2,608	2,620	2,631	2,642

Historical Water Demand

- Average demand of approximately 1,450 acre-feet per year (AFY)
 - › Min year 1,032 AF, Max year 1,675 AF
 - › FY 2019 right on average

Fiscal Year	Annual Water Usage (HCF)	% Change
2012	676,094	
2013	647,409	-4.2%
2014	729,684	12.7%
2015	632,159	-13.4%
2016	549,639	-13.1%
2017	592,689	7.8%
2018	639,553	7.9%
2019	619,278	-3.2%
2020	711,795	14.9%
2021	584,222	-17.9%
2022	449,497	-23.1%



Water Demand Assumptions (HCF)

- Proposal:
 - › Utilize FY 2019 demand as baseline (approximately 1,429 AF of sales)
 - › Discount FY 2019 demand by 1% per year to present year to account for passive conservation
 - › Yields new baseline estimate of approximately 1,375 AFY in FY 2024

Description	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Customer Class	Actuals	Projected	Projected	Projected	Projected	Projected
SFR	160,396	193,172	194,092	195,017	195,947	196,881
MFR	53,210	65,034	65,590	66,149	66,714	67,283
CG	99,214	206,004	206,004	206,004	206,004	206,004
Industrial	88,441	101,865	101,865	101,865	101,865	101,865
Fire	184	1,150	1,150	1,150	1,150	1,150
Landscape	9,264	11,306	11,306	11,306	11,306	11,306
Raw	4,411	19,235	19,235	19,235	19,235	19,235
Total Sales (HCF)	415,120	597,766	599,241	600,726	602,220	603,724
Total Sales (AFY)	953	1,372	1,376	1,379	1,383	1,386

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Water Demand Assumptions (Continued)

- Table shows combined historical demands and near-term projections based on prior slides

Customer Class	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
SFR	202,374	269,976	256,260	160,396	193,172	194,092
MFR	67,878	76,683	69,678	53,210	65,034	65,590
CG	216,846	117,451	98,283	99,214	206,004	206,004
Industrial	101,992	110,300	100,035	88,441	101,865	101,865
Fire	1,211	163	353	184	1,150	1,150
Landscape	11,901	17,177	14,824	9,264	11,306	11,306
Raw	20,247	26,098	15,756	4,411	19,235	19,235
Total Sales (HCF)	622,449	617,848	555,189	415,120	597,766	599,241
Total Sales (AFY)	1,429	1,418	1,275	953	1,372	1,376
Annual % Change	N/A	-1%	-10%	-25%	44%	0%

Projected Wastewater Connections – W/Growth

Description	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
	Actuals	Projected	Projected	Projected	Projected	Projected
Residential Sewer Accounts						
Dwelling Units						
SFR	1,526	1,533	1,541	1,548	1,555	1,563
MFR	673	679	685	690	696	702
Mobile Home	212	214	216	217	219	221
Total Residential Dwelling Units	2,411	2,426	2,441	2,456	2,471	2,486
Accounts						
SFR	1,506	1,513	1,520	1,528	1,535	1,542
MFR	100	101	102	103	103	104
Mobile Home	2	2	2	2	2	2
Total Residential Accounts	1,608	1,616	1,624	1,632	1,640	1,649
Non-Residential Meters						
5/8"	117	117	117	117	117	117
1"	43	43	43	43	43	43
1.5"	20	20	20	20	20	20
2"	20	20	20	20	20	20
3"	2	2	2	2	2	2
4"	4	4	4	4	4	4
6"	1	1	1	1	1	1
Total Meters	207	207	207	207	207	207

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Thank you

Contacts:

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Nick Kennedy– 213.262.9305 / nkennedy@raftelis.com



Water and Wastewater Rate Study Advisory Committee

December 8, 2022 9:00am

Item 5.3

Detailed Presentation of

Water & Wastewater Capital Improvement Program:

What We're Proposing to Do & When



Agenda

- Detailed review of Capital Improvement Program projects for Water & Wastewater infrastructure
 - Includes projects funded via:
 - Rate Structure
 - General Obligation Bond
 - What is NOT included...
 - Historic/Deferred CIP
 - Operational/Systematic Improvements (IUMP Appendix C, p24, Table 2)
- Proposed schedule for project delivery
- Q&A





CIP – Integrated Utility Master Plan (Water)

Table 8.4 20-Year Water Distribution System CIP

Project Name and Description	Existing Size/Type	Proposed Size (inches)	Proposed Amount (LF)	CIP Cost Estimate ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾ (\$)	Phase 1 (2021-2025)	Phase 2 (2026-2030)	Phase 3 (2031-2040)
PWTM-1 Napa Intertie Transmission Main	12	12	19,700	\$ 5,715,000	\$ 5,715,000		
PWTM-2 WTP Transmission Main	14, 18, 24	14, 18, 24	16,300	\$ 7,954,000	\$ 7,954,000		
PWFF-1 Zinfandel Ln Fireflow Improvement	4	8	760	\$ 144,000		\$ 144,000	
PWFF-2 Inglewood Ave Fireflow Improvement	2	8	290	\$ 55,000		\$ 55,000	
PWFF-3 Vintage Ave Loop	--	8	100	\$ 20,000		\$ 20,000	
PWFF-4 El Bonita Ave Fireflow	2	8	260	\$ 50,000		\$ 50,000	
PWFF-5 Charter Oak Fireflow	2	8	400	\$ 76,000		\$ 76,000	
PWFF-6 Crane Fireflow	6	8	730	\$ 139,000		\$ 139,000	
PWFF-7 Spring St Fireflow	6	8	1,370	\$ 262,000		\$ 262,000	
PWFF-8 Pine St Fireflow	4	8	340	\$ 65,000		\$ 65,000	
PWFF-9 Fulton Ln Fireflow	2	8	440	\$ 85,000		\$ 85,000	
PWFF-10 6" Hydrant Lateral Upsize	2	6	80	\$ 12,000		\$ 12,000	
PWFF-11 4" Hydrant Lateral Upgrades	2	4	150	\$ 15,000		\$ 15,000	
PWST-1 ⁽⁵⁾ Meadowood Tanks Replacement	0.2	--	--	\$ -			
PWRR-1 Future Allowance for Water Main R/R	8	8	20,700	\$ 3,947,000		\$ 986,750	\$ 2,960,250
CIP Total				\$ 18,539,000	\$ 13,669,000	\$ 1,909,750	\$ 2,960,250

Notes:

- (1) ENR 20 City Average Construction Cost Index for April 2020 is 11,413.
- (2) Estimated Construction Cost includes a 30% contingency of the baseline construction cost.
- (3) Total project costs includes a 10% markup for engineering, a 10% markup for construction management and a 7.5% markup for project administration of the estimated construction cost.
- (4) Total Mark-Up is 65.8% of the baseline construction costs.
- (5) The Meadowood Tanks burned down in the 2020 wildfires and the City has secured funding to replace the tanks.



CIP – IUMP (Water)

- Replace Supply Transmission Mains ASAP!!!
- Based upon Risk Assessment: IUMP Appendices A & B
 - During 1st 5-year CIP
 - PWTM-1 Napa Intertie Transmission Main – \$5.715M
 - Constructed in 19??
 - 19,700 LF (3.7 miles) – 12” diameter pipe replacement
 - PWTM-2 Water Treatment Plant Transmission Main – \$7.954M
 - Constructed in 1965
 - 16,300 LF (3.1 miles) – 14”, 18”, 24” diameter pipe replacement
- Install system Fire Flow enhancements
 - Defer to 2nd 5-year CIP
- Excludes any enhancements/rehabilitation to Stonebridge Wells, WTP and Rutherford PS (i.e. Napa Intertie station)

Appendix A

PM01 NAPA INTERTIE RISK ASSESSMENT

Appendix B

PM01 ST. HELENA WTP TRANSMISSION LINE
RISK MEMO



CIP – Deferred (Water)

- Main Replacement: Implementation schedule on subsequent
- Table reflects progression of projects over last several years

		10/31/22	05/16/22	05/11/21	05/01/20
Rates CIP			FY23	FY22	FY21
W-80	Dwyer Road Booster Pump Station (City prorata share = 10%; \$9M County project)	\$ 900,000	\$ 900,000	\$ 2,487,571	\$ 2,487,571
W-86	Spring Mountain Pressure Zone Improvements (Holmes Tank Upgrade) (Breeze - Inactive)	\$ 3,044,935	\$ -	\$ 3,044,935	\$ 2,899,938
W-101	Rehabilitate Tank 2 at Lower Reservoir (Breeze - Inactive)	\$ 940,000	\$ -	\$ 713,458	\$ 689,479
W-109	Bell Canyon Intake Tower Replacement	\$ 3,293,227	\$ 3,853,000	\$ 3,293,227	\$ 3,206,734
W18-111	WTP Condition Assessment (Breeze - Inactive)	\$ 200,000	\$ -	\$ 157,500	\$ 150,000
W18-113	SCADA Improvements - Offsite Communications (Breeze - "Rutherford & Holmes")	\$ 800,000	\$ 800,000	\$ 157,500	\$ 150,000
W18-118	Water Main Annual Replacement Program allowance (not funded by GO Bond)	\$ 917,500	\$ -	\$ 1,291,501	\$ 1,200,000
W21-01	Kearney & Andrea Water Main Replacement (Breeze - Inactive)	\$ 875,705	\$ -	\$ 448,718	\$ 475,000
GO BOND CIP					
W18-118	Water Main Annual Replacement Program Allowance (Breeze - Inactive)	\$ 1,440,000		\$ -	
W20-01	Bell Canyon Spillway Repairs (Breeze - Inactive)	\$ 130,000		\$ 105,000	\$ 100,000
W-85	Bell House Valve Replacement			\$ 575,275	\$ 547,881
W18-120	Bell Canyon Phreatic Surface Monitoring	\$ 620,000		\$ 34,205	\$ 34,205
W-108	Lower Reservoir Rehab (Breeze - Inactive)			\$ 23,778	\$ 31,883



CIP – Deferred (Water)

Dwyer Road Booster (Pump Station)

Project No: W-80
 Category: Water
 Project Location: Between St. Helena, Napa, and Calistoga: Dwyer Road
 Responsible Department:



PROJECT PURPOSE & DESCRIPTION: This is a shared facility between St. Helena, Napa, and Calistoga for moving water up valley. The project will improve system reliability and increase pressure in the southern end of the system.

The City of Napa will conduct the work on this project with a 10% cost share by the City of St. Helena. Total project cost is estimated at \$6,000,000.

EXPENDITURE ACCOUNTS:
 Fund: 763 Dept: 5030

EXPENDITURES	Total YTD 05/16/22	2022-23	2023-24	2024-25	2025-26	2026-27	PROJECT TOTAL
3110 - Design		200,000					200,000
3160 - Construction Contract		700,000					700,000
EXPENDITURE TOTALS		900,000					900,000
FUNDING SOURCES							
763-Water Capital Improvement		900,000					900,000
763-Water Capital Improvement - Debt							0
763-Water Capital Improvement - Grant/Interagency Fund							0
764-Water Impact Fees							0
FUNDING TOTALS		900,000					900,000

Spring Mountain Pressure Zone Improvements (Holmes Tank Upgrade)

Project No: W-86
 Category: Water
 Project Location: APN 009-131-029 & 019
 Responsible Department:



PROJECT PURPOSE & DESCRIPTION: Upgrade and integrate Holmes and Elmhurst water delivery systems.

EXPENDITURE ACCOUNTS:
 Fund: 763 Dept: 5030

EXPENDITURES	Total YTD 05/11/21	2021-22	2022-23	2023-24	2024-25	2025-26	PROJECT TOTAL
3110 - Design	138,073						138,073
3150 - Construction Management			157,500				157,500
3160 - Construction Contract			2,703,685				2,703,685
3170 - Contingency			183,750				183,750
EXPENDITURE TOTALS	138,073		3,044,935				3,183,008
FUNDING SOURCES							
763-Water Capital Improvement	138,073		144,997				283,070
763-Water Capital Improvement - Debt			579,988				579,988
763-Water Capital Improvement HMGP Funds			2,319,950				2,319,950
FUNDING TOTALS	138,073		3,044,935				3,183,008



CIP – Deferred (Water)

Tank 2 Rehabilitation

Project No: W-101
Category: Water
Project Location: APN 022-420-019
Responsible Department:



PROJECT PURPOSE & DESCRIPTION: Rehabilitate Tank 2 at Lower Reservoir.

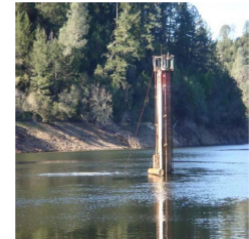
EXPENDITURE ACCOUNTS:

Fund: 763 **Dept:** 5030

EXPENDITURES	Total YTD 05/11/21		2021-22	2022-23	2023-24	2024-25	2025-26	PROJECT TOTAL
3110 - Design	22,904		12,300					35,204
3150 - Construction Management			55,704					55,704
3160 - Construction Contract	15,282		582,454					597,736
3170 - Contingency			63,000					63,000
EXPENDITURE TOTALS	38,186		713,458					751,644
FUNDING SOURCES								
763-Water Capital Improvement	38,186		713,458					751,644
FUNDING TOTALS	38,186		713,458					751,644

Bell Canyon Intake Tower Replacement

Project No: W-109
Category: Water
Project Location: APN 021-420-019
Responsible Department:



PROJECT PURPOSE & DESCRIPTION: Immediate repairs slated are required to be in compliance. Non compliance constitutes a violation of the City's Division of Dam Safety permitted use of Bell Canyon is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application by the State of California Department of Water Resources Division of Dam Safety.

EXPENDITURE ACCOUNTS:

Fund: 763 **Dept:** 5030

EXPENDITURES	Total YTD 05/16/22		2022-23	2023-24	2024-25	2025-26	2026-27	PROJECT TOTAL
3110 - Design	289,313			150,000				439,313
3120 - Environmental/Planning				200,000				200,000
3140 - Legal Services				3,000				3,000
3150 - Construction Management					200,000			200,000
3160 - Construction Contract					3,000,000			3,000,000
3170 - Contingency					300,000			300,000
EXPENDITURE TOTALS	289,313			353,000	3,500,000			4,142,313
FUNDING SOURCES								
763-Water Capital Improvement	289,313							289,313
763-Water Capital Improvement - Debt				353,000	3,500,000			3,853,000
764-Water Impact Fees								0
FUNDING TOTALS	289,313			353,000	3,500,000			4,142,313



CIP – Deferred (Water)

WTP Condition Assessment

Project No: W18-111
 Category: Water
 Project Location: APN 021-420-019
 Responsible Department:



PROJECT PURPOSE & DESCRIPTION: This is an assessment to develop short and long term needs of the Louis Stralla Water Treatment Plant.

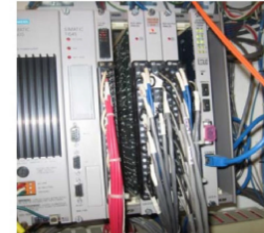
EXPENDITURE ACCOUNTS:

Fund: 763 Dept: 5030

EXPENDITURES	Total YTD 05/11/21	2021-22	2022-23	2023-24	2024-25	2025-26	PROJECT TOTAL
3110 - Design		157,500					157,500
EXPENDITURE TOTALS		157,500					157,500
FUNDING SOURCES							
763-Water Capital Improvement		157,500					157,500
FUNDING TOTALS		157,500					157,500

Water System SCADA Improvements

Project No: W18-113
 Category: Water
 Project Location: Citywide
 Responsible Department:



PROJECT PURPOSE & DESCRIPTION: This project will apply power and instrumentation upgrades to integrate the City's water pump stations into Supervisory, Control and Data Acquisition System (SCADA). SCADA is utilized to monitor and control a plant and/or equipment.

EXPENDITURE ACCOUNTS:

Fund: 763 Dept: 5030

EXPENDITURES	Total YTD 05/16/22	2022-23	2023-24	2024-25	2025-26	2026-27	PROJECT TOTAL
3110 - Design			150,000	150,000			300,000
3160 - Construction Contract			250,000		250,000		500,000
EXPENDITURE TOTALS			150,000	400,000	250,000		800,000
FUNDING SOURCES							
763-Water Capital Improvement							0
763-Water Capital Improvement - Debt			150,000	400,000	250,000		800,000
FUNDING TOTALS			150,000	400,000	250,000		800,000



CIP – Deferred (Water)

Replace Mains <6" in Diameter

Project No: W18-118
Category: Water
Project Location: Various locations in St. Helena
Responsible Department:



PROJECT PURPOSE & DESCRIPTION: This annual project will begin the replacement of City water mains. It is anticipated that there will be one project per year based on the completed Integrated Master Utility Plan.

FY 22 Project - W21-01

EXPENDITURE ACCOUNTS:

Fund: 763 Dept: 5030

EXPENDITURES	Total YTD 05/11/21		2021-22	2022-23	2023-24	2024-25	2025-26	PROJECT TOTAL
3110 - Design				42,000	44,100			86,100
3150 - Construction Management				42,000	44,100			86,100
3160 - Construction Contract				488,250	512,663			1,000,913
3170 - Contingency				57,750	60,638			118,388
EXPENDITURE TOTALS				630,000	661,501			1,291,501
FUNDING SOURCES								
763-Water Capital Improvement - Debt				630,000	661,501			1,291,501
FUNDING TOTALS				630,000	661,501			1,291,501

Kearney and Andrea Water Main Replacement

Project No: W21-01
Category: Water
Project Location: Kearney and Andrea
Responsible Department:



PROJECT PURPOSE & DESCRIPTION: The 4" water main on Kearney between Hillview Place and Adams Street needs to be replaced as well as the main on Andrea from Kearney to Oak Avenue.

EXPENDITURE ACCOUNTS:

Fund: 763 Dept: 5030

EXPENDITURES	Total YTD 05/11/21		2021-22	2022-23	2023-24	2024-25	2025-26	PROJECT TOTAL
3110 - Design	46,283		28,718					75,001
3150 - Construction Management			52,500					52,500
3160 - Construction Contract			315,000					315,000
3170 - Contingency			52,500					52,500
EXPENDITURE TOTALS	46,283		448,718					495,001
FUNDING SOURCES								
763-Water Capital Improvement	46,283		48,718					95,001
763-Water Capital Improvement - Debt			400,000					400,000
FUNDING TOTALS	46,283		448,718					495,001



CIP – Deferred (Water)

Bell Canyon Spillway Repairs

Project No: W20-01

Category: Water

Project Location:

Responsible Department:



PROJECT PURPOSE & DESCRIPTION: Make repairs to the spillway based on the initial spillway assessment in 2018.

EXPENDITURE ACCOUNTS:

Fund: 763 Dept: 5030

EXPENDITURES	Total YTD 05/11/21	2021-22	2022-23	2023-24	2024-25	2025-26	PROJECT TOTAL
3110 - Design		105,000					105,000
EXPENDITURE TOTALS		105,000					105,000
FUNDING SOURCES							
763-Water Capital Improvement		105,000					105,000
FUNDING TOTALS		105,000					105,000

Bell House Valve Replacement

Project No: W-85

Category: Water

Project Location: APN 021-420-019

Responsible Department:



PROJECT PURPOSE & DESCRIPTION: Required by the Division of Safety of Dams (DSOD), replacement is necessary for emergency operation. In the event of an emergency and by order of DSOD that we release water from the reservoir, there is significant risk that the City would not be able to close the valve and stop the water, resulting in draining all of Bell Canyon.

EXPENDITURE ACCOUNTS:

Fund: 763 Dept: 5030

EXPENDITURES	Total YTD 05/11/21	2021-22	2022-23	2023-24	2024-25	2025-26	PROJECT TOTAL
3110 - Design		74,315					74,315
3120 - Environmental/Planning		52,500					52,500
3160 - Construction Contract		395,960					395,960
3170 - Contingency		52,500					52,500
EXPENDITURE TOTALS		575,275					575,275
FUNDING SOURCES							
763-Water Capital Improvement		500,131					500,131
764-Water Impact Fees		75,144					75,144
FUNDING TOTALS		575,275					575,275



CIP – Deferred (Water)

Bell Canyon Phreatic Surface Monitoring & Assessment

Project No: W18-120
 Category: Water
 Project Location: APN 021-420-019
 Responsible Department:



PROJECT PURPOSE & DESCRIPTION: The Bell Canyon Phreatic Surface Monitoring and Assessment is a new requirement of the Division of Dam Safety as a direct result of the 2017 Oroville Dam incident.

EXPENDITURE ACCOUNTS:
 Fund: 763 Dept: 5030

EXPENDITURES	Total YTD 05/11/21	2021-22	2022-23	2023-24	2024-25	2025-26	PROJECT TOTAL
3110 - Design	30,795	34,205					65,000
EXPENDITURE TOTALS	30,795	34,205					65,000
FUNDING SOURCES							
763-Water Capital Improvement	30,795	34,205					65,000
FUNDING TOTALS	30,795	34,205					65,000

Lower Reservoir Rehab

Project No: W-108
 Category: Water
 Project Location: APN 009-131-013
 Responsible Department:



PROJECT PURPOSE & DESCRIPTION: Rehab Lower York Creek Dam as required by the Division of Dam Safety. Repair 12" diameter gate in the outlet tower, repair 24" diameter spillway gate, geotechnical investigation and stability analysis, seismic stability analysis of intake tower and survey and rehab 12 " diameter low level outlet pipe.

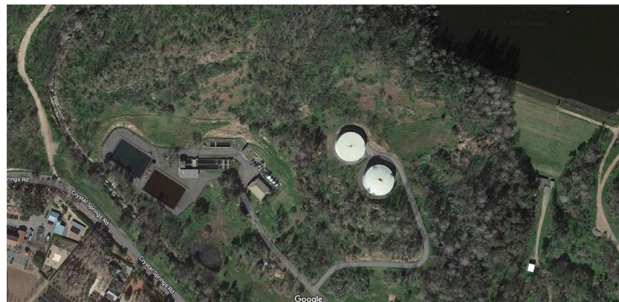
EXPENDITURE ACCOUNTS:
 Fund: 763 Dept: 5030

EXPENDITURES	Total YTD 05/11/21	2021-22	2022-23	2023-24	2024-25	2025-26	PROJECT TOTAL
3110 - Design	213,917	23,778					237,695
EXPENDITURE TOTALS	213,917	23,778					237,695
FUNDING SOURCES							
763-Water Capital Improvement	213,917	23,778					237,695
FUNDING TOTALS	213,917	23,778					237,695



CIP – Staff Recommended (Water)

Staff Recommended	
Napa Intertie Pump Station Replacement (Construction)	\$10,800,000
Napa Intertie Pump Station Replacement (DESIGN) (excludes \$1.6M from "Dodd Grant")	\$2,300,000
Water Treatment Plant (Water Treatment Plant Rehabilitation)	\$8,400,000
Smart Water Meters	\$1,970,000
PFAS Sampling Project	\$25,000
Disinfection By Products Project	\$700,000
Risk and Resilience Assessment Report dated January 2022 - Additional recommended items	\$150,000
Cyber-Security Implementation	\$50,000
Asset Management Program Development	\$50,000
Asset Management Software Assessment & Optimization planning	\$15,000
CMMS Purchase & Setup	\$50,000
ArcGIS Purchase & Setup	\$50,000
Allocated RW CIP	\$3,067,700





CIP – Excluded (Water)

		10/31/22	05/16/22	05/11/21	05/01/20
			FY23	FY22	FY21
Not Included					
W-27	Meadowood Tank Upgrades				\$ 950,000
W-35	Bell Canyon Reservoir Improvements		\$ 900,000	\$ 900,000	\$ 900,000
W-91	Bell Canyon Creek Flow Measurement		\$ 25,477	\$ 26,114	\$ 26,114
W-93	Sludge Handling Program			\$ 150,000	\$ 150,000
W-106	Pump Station Upgrades		\$ 83,559	\$ 208,296	\$ 208,296
W-110	Rutherford Pump Upgrade		\$ 491,037	\$ 474,640	\$ 474,640
W-112	Spill Containment at Bell Creek			\$ 75,000	\$ 75,000
W18-114	Spill Containment at SB Wells			\$ 75,000	\$ 75,000
W18-115	Rutherford Pump Station restriction removal		\$ 157,500	\$ 150,000	\$ 150,000
W18-116	Update GIS Maps of Water System			\$ 50,000	\$ 50,000
W18-117	Water Master Plan Update			\$ 31,818	\$ 31,818
W18-119	Bell Canyon Spillway Stability Assessment			\$ 27,000	\$ 27,000

Note: W-110 incorporated into Staff Recommended “Napa Intertie Pump Station Replacement” project



CIP – Excluded (Water)

Bell Canyon Reservoir Improvements

Project No: W-35
Category: Water

Project Location: 410 Crystal Springs Rd. (APN 021-420-019)

Responsible Department:



PROJECT PURPOSE & DESCRIPTION: Dredging of Bell Canyon Reservoir will return the storage capacity to design limits.

EXPENDITURE ACCOUNTS:

Fund: 763 Dept: 5030

EXPENDITURES	Total YTD 05/11/21		2021-22	2022-23	2023-24	2024-25	2025-26	PROJECT TOTAL
3110 - Design			50,000					50,000
3150 - Construction Management			50,000					50,000
3160 - Construction Contract			750,000					750,000
3170 - Contingency			50,000					50,000
EXPENDITURE TOTALS			900,000					900,000
FUNDING SOURCES								
763-Water Capital Improvement			765,000					765,000
764-Water Impact Fees			135,000					135,000
FUNDING TOTALS			900,000					900,000

Rutherford Pump Upgrade

Project No: W-110
Category: Water

Project Location: 1851 St Helena Hwy.

Responsible Department:



PROJECT PURPOSE & DESCRIPTION: Upgrade electrical equipment and install permanent structure.

FY 21 Design and FY 22 Construction

EXPENDITURE ACCOUNTS:

Fund: 763 Dept: 5030

EXPENDITURES	Total YTD 05/11/21		2021-22	2022-23	2023-24	2024-25	2025-26	PROJECT TOTAL
3110 - Design	48,805		31,195					80,000
3150 - Construction Management			52,500					52,500
3160 - Construction Contract	12,055		354,842					366,897
3170 - Contingency			52,500					52,500
EXPENDITURE TOTALS	60,860		491,037					551,897
FUNDING SOURCES								
763-Water Capital Improvement	60,860							60,860
763-Water Capital Improvement - Debt			491,037					491,037
FUNDING TOTALS	60,860		491,037					551,897



CIP – Integrated Utility Master Plan (Wastewater)

Table 8.5 20-Year Wastewater Collection System CIP

Project	Existing Size/Type	Proposed Size/Type	Proposed Amount	CIP Cost Estimate ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾ (\$)	Phase 1 (2021-2025)	Phase 2 (2026-2030)	Phase 3 (2031-2040)
WWGM-1 Madrona Avenue	6	10	690	\$ 201,000	\$ 201,000		
WWGM-2 Railroad Avenue	8	12	1,670	\$ 512,000		\$ 512,000	
WWGM-3 Valley View Street	6	10	840	\$ 244,000		\$ 244,000	
WWGM-4 Mitchell Drive	8	12	800	\$ 245,000		\$ 245,000	
WWGM-5 Mitchell Drive & Main Street	8	15	770	\$ 255,000		\$ 255,000	
WWGM-6 Del Campo Court	15 & 18	21	1,360	\$ 608,000	\$ 608,000		
WWGM-7 Signorelli Circle	10 & 12	18	2,590	\$ 923,000	\$ 923,000		
WWGM-8 Adams Street	4	8	730	\$ 206,000		\$ 206,000	
WWGM-9 Pope Street	8 & 10	15	710	\$ 235,000	\$ 235,000		
WWGM-10 Birch Avenue	6	8	1,370	\$ 386,000		\$ 386,000	
WWGM-11 Main Street	6	10	300	\$ 88,000		\$ 88,000	
WWGM-12 Spring Street	4	8	190	\$ 53,000		\$ 53,000	
WWLS-1 ⁽⁵⁾ Lift Station - Odor Control	--	--	--	\$ -			
WWRR-1 CCTV Inspection Program, 1st Phase	--	--	63,360	\$ 222,000	\$ 222,000		
WWRR-2 Flow Monitoring Program	--	--	--	\$ 60,000	\$ 60,000		
WWRR-3 High Priority Pipeline Replacement	8	8	9,500	\$ 2,677,000	\$ 2,677,000		
WWRR-4 Model Update and System Analysis	--	--	--	\$ 50,000	\$ 50,000		
WWRR-5 CCTV Inspection, Phase 2	8	8	187,700	\$ 657,000		\$ 657,000	
WWRR-6 Address R/R Needs from Phase 1 CCTV Program	8	8	12,700	\$ 3,579,000		\$ 1,193,000	\$ 2,386,000
CIP Total				\$ 11,201,000	\$ 4,976,000	\$ 3,839,000	\$ 2,386,000

Notes:

- (1) ENR 20 City Average Construction Cost Index for April 2020 is 11,413.
- (2) Estimated Construction Cost includes a 30% contingency of the baseline construction cost.
- (3) Total project costs includes a 10% markup for engineering, a 10% markup for construction management and a 7.5% markup for project administration of the estimated construction cost.
- (4) Total Mark-Up is 65.8% of the baseline construction costs.
- (5) This is a planned City project and the City secured funding for odor control at their Lift Stations.



CIP – IUMP (Wastewater)

- Several specific pipe replacements recommended
 - Only Del Campo Court included in rate structure
 - Annual R/R budget proposed
- Proceed with additional inspection of system to develop detailed Rehabilitate/Replacement CIP
 - CCTV, Smoke Testing, etc.

Rates CIP			
	WWRR-2	Flow Monitoring Program	\$ 60,000
	WWRR-3	High Priority Pipeline Replacement	\$ 3,348,000
	WWRR-4	Model Update and System Analysis	\$ 50,000
	WWRR-5	CCTV Inspection Phase 2	\$ 657,000
	WWRR-6	Address R/R needs from Phase 1 CCTV Program	\$ 1,786,750
GO BOND CIP			
	WWGM-6	Del Campo Court	\$ 608,000
	WWRR-1	CCTV Inspection Program, Phase 1	\$ 222,000



CIP – Deferred (Wastewater)

			10/31/22	05/16/22	05/11/21	05/01/20
				FY23	FY22	FY21
Rates CIP						
	S21-01	WWTP Recycled Pipeline and Pump Station (design only)	\$ 3,067,700	\$ 33,847	\$ 130,000	
	S23-01	Recycled Water - Deliver Recycled Water to Crane Park's Irrigation (Design only)	\$ 50,000	\$ 50,000		
GO BOND CIP						
	S18-70	Sewer Replacement Program (1%/yr x 5yrs)	\$ 1,240,000		\$ 750,000	\$ 895,464
	S18-71	Crinella Lift Station Improvements	\$ 1,140,000		\$ 982,000	\$ 867,595
USDA CIP						
	S-52	WWTP Phase I Upgrades	\$ 13,402,000	\$ 13,402,000	\$ 14,320,341	\$ 14,479,779

- Note increases in project costs, especially design for WWTP RW



CIP – Deferred (Wastewater)

WWTP Recycled Pipeline and Pump Station

Project No: S21-01
 Category: Wastewater
 Project Location: 1 Chaix Ln St. Helena
 Responsible Department:



PROJECT PURPOSE & DESCRIPTION: Provide pump station to distribute recycled water to the WWTP spray fields and provide recycled water to City customers via mainline connection

EXPENDITURE ACCOUNTS: Fund: 773 Dept: 5059

EXPENDITURES	Total YTD 05/16/22	2022-23	2023-24	2024-25	2025-26	2026-27	PROJECT TOTAL
3110 - Design	96,153	33,847					130,000
EXPENDITURE TOTALS	96,153	33,847					130,000
FUNDING SOURCES							
764-Water Impact Fees	70,192	24,708					94,900
774-Wastewater Impact Fees	25,961	9,139					35,100
FUNDING TOTALS	96,153	33,847					130,000

Recycled Water - Crane Park Irrigation Infrastructure

Project No: S23-01
 Category: Wastewater
 Project Location: WWTP to Crane Park
 Responsible Department:

PROJECT PURPOSE & DESCRIPTION: Installation of necessary piping such that the Recycled Water Pipe is delivering recycled water to Crane Park's irrigation infrastructure.

EXPENDITURE ACCOUNTS: Fund: 773 Dept: 5059

EXPENDITURES	Total YTD 05/16/22	2022-23	2023-24	2024-25	2025-26	2026-27	PROJECT TOTAL
3110 - Design		50,000					50,000
EXPENDITURE TOTALS		50,000					50,000
FUNDING SOURCES							
764-Water Impact Fees		25,000					25,000
774-Wastewater Impact Fees		25,000					25,000
FUNDING TOTALS		50,000					50,000



CIP – Deferred (Wastewater)

Replace 1% of Sewer Mains Annually

Project No: S18-70
Category: Wastewater
Project Location: Various
Responsible Department:



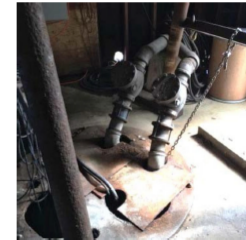
PROJECT PURPOSE & DESCRIPTION: This annual project will begin the replacement of City sewer mains. It is anticipated there will be one project per year.

EXPENDITURE ACCOUNTS:
Fund: 773 Dept: 5059

EXPENDITURES	Total YTD 05/11/21		2021-22	2022-23	2023-24	2024-25	2025-26	PROJECT TOTAL
3110 - Design			15,000	15,000	15,000	15,000	15,000	75,000
3150 - Construction Management			20,000	20,000	20,000	20,000	20,000	100,000
3160 - Construction Contract			100,000	100,000	100,000	100,000	100,000	500,000
3170 - Contingency			15,000	15,000	15,000	15,000	15,000	75,000
EXPENDITURE TOTALS			150,000	150,000	150,000	150,000	150,000	750,000
FUNDING SOURCES								
773-Wastewater Capital Improvement			150,000	150,000	150,000	150,000	150,000	750,000
FUNDING TOTALS			150,000	150,000	150,000	150,000	150,000	750,000

Crinella Pump Station Upgrades

Project No: S18-71
Category: Wastewater
Project Location: Crinella Neighborhood
Responsible Department:



PROJECT PURPOSE & DESCRIPTION: The Crinella Pump Station is located within the Crinella residential neighborhood. It pumps raw wastewater out of Crinella to a gravity sewer main on Railroad Avenue which then goes to the City's wastewater treatment plant. This project will update the structure and pumping systems. It will also include construction of a filter system to control odors.

Construction deferred until FY 22

EXPENDITURE ACCOUNTS:
Fund: 773 Dept: 5059

EXPENDITURES	Total YTD 05/11/21		2021-22	2022-23	2023-24	2024-25	2025-26	PROJECT TOTAL
3110 - Design	99,030						105,000	204,030
3140 - Legal Services							2,000	2,000
3150 - Construction Management							105,000	105,000
3160 - Construction Contract							700,000	700,000
3170 - Contingency							70,000	70,000
EXPENDITURE TOTALS	99,030						982,000	1,081,030
FUNDING SOURCES								
773-Wastewater Capital Improvement	99,030							99,030
999-Unidentified							982,000	982,000
FUNDING TOTALS	99,030						982,000	1,081,030



CIP – Deferred (Wastewater)

- Scheduled completion: Fall 2023

WWTP Phase 1 Upgrades

Project No: S-52
Category: Wastewater
Project Location: 1 Chaix Ln
Responsible Department:



PROJECT PURPOSE & DESCRIPTION: Per the State Cease and Desist Order, upgrade the plant to meet compliance requirements by 2021. In addition, to compliance requirements, levee repairs and sludge removal will be incorporated into construction of this project.

Merged into S-52: S-53, S-62, S-66, S18-79.

EXPENDITURE ACCOUNTS:

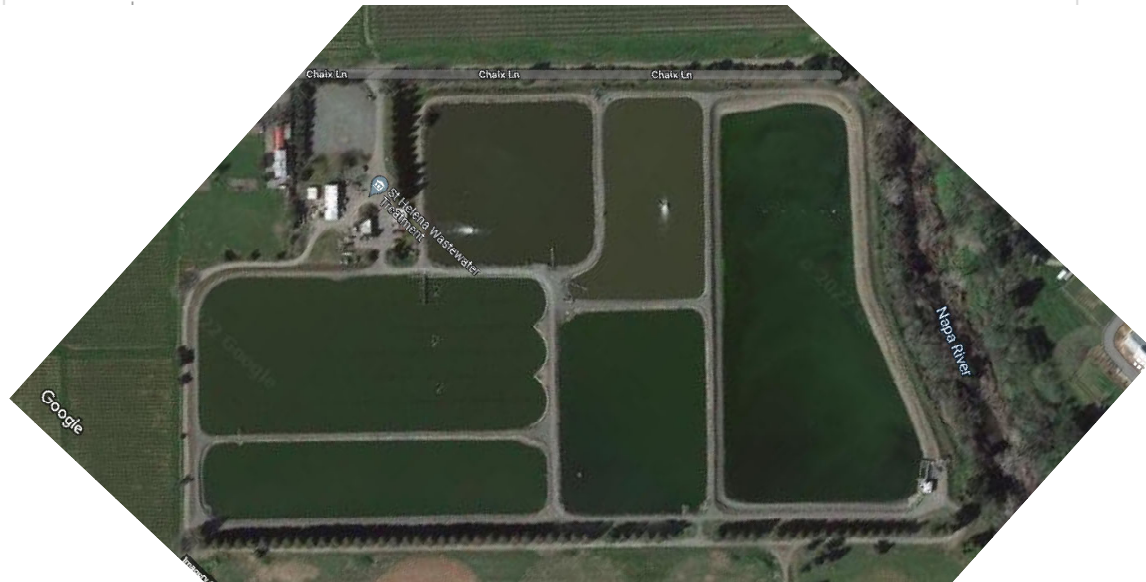
Fund: 773 Dept: 5059

EXPENDITURES	Total YTD 05/16/22	2022-23	2023-24	2024-25	2025-26	2026-27	PROJECT TOTAL
3110 - Design	1,706,443						1,706,443
3120 - Environmental/Planning	111,850						111,850
3140 - Legal Services	85,000						85,000
3150 - Construction Management		535,085					535,085
3160 - Construction Contract	3,510,534	11,378,056					14,888,590
3170 - Contingency		1,488,859					1,488,859
EXPENDITURE TOTALS	5,413,827	13,402,000					18,815,827
FUNDING SOURCES							
571-Wastewater Cash Operations Fund Balance		2,684,114					2,684,114
740-Traffic Impact Fees Fund Loan		873,610					873,610
773-Wastewater Capital Improvement	1,903,293	3,267,808					5,171,101
773-Wastewater Capital Improvement - Debt	3,510,534	5,852,391					9,362,925
774-Wastewater Impact Fees		724,077					724,077
FUNDING TOTALS	5,413,827	13,402,000					18,815,827



CIP – Staff Recommended (WW)

Staff Recommended		
	WWTP Pond Cleaning, Decommissioning, and Repurpose	\$ 1,000,000
	Asset Management Program Development	\$ 50,000
	Asset Management Software Assessment & Optimization planning	\$ 15,000
	CMMS Purchase & Setup	\$ 50,000
	ArcGIS Purchase & Setup	\$ 50,000





CIP – Excluded (Wastewater)

		10/31/22	05/16/22 FY23	05/11/21 FY22	05/01/20 FY21
Not Included					
S18-73	Wet Weather Flow Monitoring			\$ 50,000	\$ 50,000
S18-74	Update GIS Maps of Sewer System				\$ 50,000
S18-75	Sewer Master Plan				\$ 54,959
S18-78	Recycled Water Feasibility Study				\$ 150,000
WWGM-1	Madrona Avenue	\$ 201,000			
WWGM-2	Railroad Avenue	\$ 512,000			
WWGM-3	Valley View Street	\$ 244,000			
WWGM-4	Mitchell Drive	\$ 245,000			
WWGM-5	Mitchell Drive & Main Street	\$ 255,000			
WWGM-7	Signorelli Circle	\$ 923,000			
WWGM-8	Adams Street	\$ 206,000			
WWGM-9	Pope Street	\$ 235,000			
WWGM-10	Birch Avenue	\$ 386,000			
WWGM-11	Main Street	\$ 88,000			
WWGM-12	Spring Street	\$ 53,000			

Note: Some/portions of WWGM projects could be included in R/R



Operational/Systematic Improvements (IUMP Appendix C, p24, Table 2)

- Many issues addressed by implementing Computerized Maintenance & Management System (CMMS) and Asset Management System
- Also addressed through WTP Condition Assessment & WW Collections Condition Assessment

Table 2 Improvement Recommendations

#	Attribute	Recommendation	Description	Priority	Hours
1	Organization Capability	Formalize AM mission, vision, & goals	Develop an AM mission, vision and goals and communicate throughout the organization.	High	80
2	Organization Capability	Training and communication	Train staff in AM methods.	Medium	240
3	Organization Capability	Assign AM resource manager	Assign a resource to oversee and manage the implementation of the AM goals.	Low	1 FTE ⁽²⁾
4	Asset Inventory and Hierarchy ⁽²⁾	Develop asset inventory	Conduct physical inventory to populate asset information for critical assets, then capture inventory for remaining assets into Beehive.	High	160
5	Asset Inventory and Hierarchy	Develop asset hierarchy	Develop and implement an asset hierarchy within Beehive.	High	120
	Asset Inventory and Hierarchy	Develop business processes	Develop a business process for inputting and maintaining the data in Beehive.	Low	80
	Asset Inventory and Hierarchy	Centralized asset database	Create a centralized database of all assets and key information that is linked with other information systems.	Low	320
	Condition Assessment and Likelihood of Failure ⁽²⁾	Develop & conduct condition assessment	Develop condition assessment protocol and conduct for most critical assets.	High	320
	Condition Assessment and Likelihood of Failure ⁽²⁾	Develop RUL	Calculate remaining useful life (RUL) beginning with the most critical assets,	Medium	80
	Condition Assessment and Likelihood of Failure ⁽²⁾	Develop LOF	Calculate likelihood of failure (LOF) beginning with the most critical assets.	Medium	80
	Condition Assessment and Likelihood of Failure	Maintain condition data over time	Maintain a recent condition score for the majority of assets in CMMS and track data over the asset's lifecycle.	Low	Integrate into daily maintenance routine



Operational/Systematic Improvements (IUMP Appendix C, p24, Table 2)

#	Attribute	Recommendation	Description	Priority	Hours
	Criticality Rating	Identify and document critical assets	Get consensus on the City's critical assets and document them.	High	80
	Criticality Rating	Develop level of service indicators	Develop level of service indicators for major facilities.	Medium	80
	Criticality Rating ^(a)	Develop criticality protocol	Develop a criticality protocol and apply to major facilities/systems.	Medium	120
	Criticality Rating	Prioritize based on criticality	Use criticality to prioritize maintenance and R&R activities.	Low	120
	Maintenance Strategy	Develop PM program	Create a formal preventative maintenance plan for the critical assets.	High	320
	Maintenance Strategy	Develop KPIs	Develop key performance indicators (KPIs).	Medium	80
	Maintenance Strategy	Develop PM program	Develop PM program and relate the maintenance strategy to the criticality and condition of assets.	Low	320
	Information Systems	Automate critical assets	Automate tracking activities for critical assets.	Medium	80
	Information Systems	Integrate information systems	Develop a strategy to integrate information systems.	Medium	120
	Information Systems	Develop data processes	Develop data standards to define ownership, quality requirements, and methods to synchronize data.	Low	120
	CMMS	Configure CMMS	Configure Beehive as the CMMS.	High	160
	CMMS	Develop CMMS standards	Develop standardized procedures for capturing assets and maintenance information.	Medium	160
	CMMS	User responsibilities	Users are aware of responsibilities and use defined procedures.	Low	80
	GIS	Update GIS	Update GIS information in Beehive with location and attribute data for the majority of service area.	Medium	160
	GIS	Complete GIS	Update GIS information with location and attribute data for all service areas and fix data errors.	Low	240



Operational/Systematic Improvements (IUMP Appendix C, p24, Table 2)

#	Attribute	Recommendation	Description	Priority	Hours
	Renewal and Replacement Prioritization	POF and COF criteria	Define POF and COF criteria and calculate for critical assets.	High	160
	Renewal and Replacement Prioritization	R&R plan	Develop renewal and replacement (R&R) plan.	Medium	160
	Renewal and Replacement Prioritization	Short and long term R&R plans	Develop short term and long term R&R plans using asset data and risk prioritization.	Low	160
	Long Term Financial Plan	Update CIP	Incorporate R&R and short term rate projections in the 5-year CIP.	High	80
	Long Term Financial Plan	Financial Plan	Develop a financial model for a 5-10 year term and evaluate R&R impacts.	Medium	80
	Long Term Financial Plan	5-year CIP	Develop and approve a 5-year CIP and multi-year rate requirements.	Low	80
	Human Resources	AM Training	Train staff on AM principles.	High	80
	Human Resources	Develop a resource plan	Develop a resource plan to evaluate resources needed to provide efficient operations and include an assessment of staff needs to be able to focus on preventative and corrective maintenance.	High	240
	Human Resources	Training	Training to support business processes/protocols.	Low	240

Notes:

(1) Activities could be combined into one effort which would reduce level of effort for individual efforts by approximately 30%.

(2) Full Time Employee



Project Delivery (Water)

Delivery				FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Yrs	Scenario 3			\$0	\$4,363,705	\$4,380,567	\$6,320,567	\$8,378,567	\$21,943,162
26-27	W-109 Bell Canyon Intake Tower Replacement	Unrestricted	\$ 3,293,227			\$0	\$0	\$660,000	\$ 2,633,227
23	W-80 Dwyer Road Booster Pump Station	Unrestricted	\$ 900,000		\$900,000	\$0			
24-26	W18-113 SCADA Improvements - Offsite Communications	Unrestricted	\$ 800,000			\$160,000	\$320,000	\$320,000	
25-27	W-86 Spring Mountain Pressure Zone Improvements (Holmes Tank Upgrade) (Breeze - Inactive)	Unrestricted	\$ 3,044,935				\$0	\$500,000	\$ 2,544,935
24-26	PWTM-1 Napa Intertie Pipeline Replacement (Breeze Inactive)	Unrestricted	\$ 5,715,000			\$300,000	\$2,707,500	\$2,707,500	
23	Smart Water Meters	Unrestricted	\$ 1,970,000		\$770,000	\$500,000	\$250,000	\$250,000	\$200,000
23	W21-01 Kearney & Andrea Water Main Replacement (Breeze - Inactive)	Unrestricted	\$ 875,705		\$875,705				
23	W-101 Rehabilitate Tank 2 at Lower Reservoir(Breeze - Inactive)	Unrestricted	\$ 940,000		\$940,000				
23	W18-111 WTP Condition Assessment(Breeze - Inactive)	Unrestricted	\$ 200,000		\$200,000				
26-27	Napa Intertie Pump Station Replacement (Construction)	Unrestricted	\$10,800,000				\$0	\$800,000	\$10,000,000
24-25	Napa Intertie Pump Station Replacement (DESIGN)	Unrestricted	\$ 2,300,000		\$0	\$1,000,000	\$1,300,000		
28-30	Water Treatment Plant (Water Treatment Plant Rehabilitation)	Unrestricted	\$ 8,400,000						
24-26	PWTM-2 Water Treatment Plant Transmission Main Replacement	Unrestricted	\$ 7,954,000			\$500,000	\$500,000	\$2,000,000	\$5,954,000
23-27	W18-118 Water Main Annual Replacement Program Allowance(Breeze - Inactive)	Go-Bond	\$ 288,000	/yr	\$288,000	\$288,000	\$288,000	\$288,000	\$288,000
28-32	PWRR-1 Yr 6-10 - Water Main Annual Replacement Program allowance (not funded by GO E	Unrestricted	\$ 197,350	/yr					
33-37	PWRR-1 Future Allowance for Pipeline R/R (Years11-15)	Unrestricted	\$ 471,500	/yr					
23	PFAS Sampling Project	Unrestricted	\$ 25,000		\$25,000				
23,26-27	Disinfection By Products Project	Unrestricted	\$ 696,000		\$50,000			\$323,000	\$323,000
23	Risk and Resilience Assessment Report dated January 2022 - Additional recommended ite	Unrestricted	\$ 150,000		\$150,000	\$0			
24	Cyber-Security Implementation	Unrestricted	\$ 50,000		\$0	\$50,000			
23	Asset Management Program Development	Unrestricted	\$ 50,000		\$50,000		\$0		
23	Asset Management Software Assessment & Optimization planning	Unrestricted	\$ 15,000		\$15,000		\$0		
23	CMMS Purchase & Setup	Unrestricted	\$ 50,000		\$50,000	\$0		\$0	
23	ArcGIS Purchase & Setup	Unrestricted	\$ 50,000		\$50,000	\$0			
24-26	Allocated RW CIP	Unrestricted	\$ 3,067,700		\$0	\$1,582,567	\$955,067	\$530,067	\$0



Project Delivery (Water)

Delivery					FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Yrs	Scenario 3				\$597,350	\$4,197,350	\$4,197,350	\$197,350	\$197,350
26-27	W-109 Bell Canyon Intake Tower Replacement	Unrestricted	\$	3,293,227					
23	W-80 Dwyer Road Booster Pump Station	Unrestricted	\$	900,000					
24-26	W18-113 SCADA Improvements - Offsite Communications	Unrestricted	\$	800,000					
25-27	W-86 Spring Mountain Pressure Zone Improvements (Holmes Tank Upgrade) (Breeze - Inactive)	Unrestricted	\$	3,044,935					
24-26	PWTM-1 Napa Intertie Pipeline Replacement (Breeze Inactive)	Unrestricted	\$	5,715,000					
23	Smart Water Meters	Unrestricted	\$	1,970,000					
23	W21-01 Kearney & Andrea Water Main Replacement (Breeze - Inactive)	Unrestricted	\$	875,705					
23	W-101 Rehabilitate Tank 2 at Lower Reservoir(Breeze - Inactive)	Unrestricted	\$	940,000					
23	W18-111 WTP Condition Assessment(Breeze - Inactive)	Unrestricted	\$	200,000					
26-27	Napa Intertie Pump Station Replacement (Construction)	Unrestricted	\$	10,800,000	\$0				
24-25	Napa Intertie Pump Station Replacement (DESIGN)	Unrestricted	\$	2,300,000					
28-30	Water Treatment Plant (Water Treatment Plant Rehabilitation)	Unrestricted	\$	8,400,000	\$400,000	\$4,000,000	\$4,000,000		
24-26	PWTM-2 Water Treatment Plant Transmission Main Replacement	Unrestricted	\$	7,954,000					
23-27	W18-118 Water Main Annual Replacement Program Allowance(Breeze - Inactive)	Go-Bond	\$	288,000	/yr				
28-32	PWRR-1 Yr 6-10 - Water Main Annual Replacement Program allowance (not funded by GO BOND)	Unrestricted	\$	197,350	/yr	\$197,350	\$197,350	\$197,350	\$197,350
33-37	PWRR-1 Future Allowance for Pipeline R/R (Years11-15)	Unrestricted	\$	471,500	/yr				
23	PFAS Sampling Project	Unrestricted	\$	25,000					
23,26-27	Disinfection By Products Project	Unrestricted	\$	696,000					
23	Risk and Resilience Assessment Report dated January 2022 - Additional recommended items	Unrestricted	\$	150,000					
24	Cyber-Security Implementation	Unrestricted	\$	50,000					
23	Asset Management Program Development	Unrestricted	\$	50,000					
23	Asset Management Software Assessment & Optimization planning	Unrestricted	\$	15,000					
23	CMMS Purchase & Setup	Unrestricted	\$	50,000					
23	ArcGIS Purchase & Setup	Unrestricted	\$	50,000					
24-26	Allocated RW CIP	Unrestricted	\$	3,067,700	\$0	\$0	\$0	\$0	\$0



Project Delivery (Water)

Delivery					FY 2033	FY 2034	FY 2035	FY 2036	FY 2037
Yrs	Scenario 3				\$471,500	\$471,500	\$471,500	\$471,500	\$471,500
26-27	W-109 Bell Canyon Intake Tower Replacement	Unrestricted	\$ 3,293,227						
23	W-80 Dwyer Road Booster Pump Station	Unrestricted	\$ 900,000						
24-26	W18-113 SCADA Improvements - Offsite Communications	Unrestricted	\$ 800,000						
25-27	W-86 Spring Mountain Pressure Zone Improvements (Holmes Tank Upgrade) (Breeze - Inactive)	Unrestricted	\$ 3,044,935						
24-26	PWTM-1 Napa Intertie Pipeline Replacement (Breeze Inactive)	Unrestricted	\$ 5,715,000						
23	Smart Water Meters	Unrestricted	\$ 1,970,000						
23	W21-01 Kearney & Andrea Water Main Replacement (Breeze - Inactive)	Unrestricted	\$ 875,705						
23	W-101 Rehabilitate Tank 2 at Lower Reservoir(Breeze - Inactive)	Unrestricted	\$ 940,000						
23	W18-111 WTP Condition Assessment(Breeze - Inactive)	Unrestricted	\$ 200,000						
26-27	Napa Intertie Pump Station Replacement (Construction)	Unrestricted	\$10,800,000						
24-25	Napa Intertie Pump Station Replacement (DESIGN)	Unrestricted	\$ 2,300,000						
28-30	Water Treatment Plant (Water Treatment Plant Rehabilitation)	Unrestricted	\$ 8,400,000						
24-26	PWTM-2 Water Treatment Plant Transmission Main Replacement	Unrestricted	\$ 7,954,000						
23-27	W18-118 Water Main Annual Replacement Program Allowance(Breeze - Inactive)	Go-Bond	\$ 288,000 /yr						
28-32	PWRR-1 Yr 6-10 - Water Main Annual Replacement Program allowance (not funded by GO E	Unrestricted	\$ 197,350 /yr						
33-37	PWRR-1 Future Allowance for Pipeline R/R (Years11-15)	Unrestricted	\$ 471,500 /yr		\$471,500	\$471,500	\$471,500	\$471,500	\$471,500
23	PFAS Sampling Project	Unrestricted	\$ 25,000						
23,26-27	Disinfection By Products Project	Unrestricted	\$ 696,000						
23	Risk and Resilience Assessment Report dated January 2022 - Additional recommended ite	Unrestricted	\$ 150,000						
24	Cyber-Security Implementation	Unrestricted	\$ 50,000						
23	Asset Management Program Development	Unrestricted	\$ 50,000						
23	Asset Management Software Assessment & Optimization planning	Unrestricted	\$ 15,000						
23	CMMS Purchase & Setup	Unrestricted	\$ 50,000						
23	ArcGIS Purchase & Setup	Unrestricted	\$ 50,000						
24-26	Allocated RW CIP	Unrestricted	\$ 3,067,700						



Project Delivery (Wastewater)

Delivery				FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Yrs	Scenario 3			\$0	\$4,363,705	\$4,380,567	\$6,320,567	\$8,378,567	\$21,943,162
22-24	S-52 WWTP Phase I Upgrades	USDA	\$ 13,402,000		\$12,061,800	\$1,340,200			
23	S23-01 Recycled Water - Deliver Recycled Water to Crane Park's Irrigation (Design only)	Unrestricted	\$ 50,000		\$50,000				
26-27	WWTP Pond Cleaning, Decommissioning, and Repurpose	Unrestricted	\$ 1,000,000					\$500,000	\$500,000
23-27	S18-70 Sewer Replacement Program	Go Bond	\$ 1,240,000 /yr		\$248,000	\$248,000	\$248,000	\$248,000	\$248,000
24-25	S18-71 Crinella Lift Station Improvements	Go Bond	\$ 1,140,000			\$570,000	\$570,000		
24	WWGM-6 Del Campo Curt	Go Bond	\$ 608,000			\$608,000			
23	WWRR-1CCTV Inspection Program, Phase 1	Go Bond	\$ 222,000		\$222,000				
24	WWRR-2 Flow Monitoring Program	Unrestricted	\$ 60,000			\$60,000			
23-27	WWRR-3 High Priority Pipeline Replacement	Unrestricted	\$ 3,348,000 /yr		\$669,600	\$669,600	\$669,600	\$669,600	\$669,600
25	WWRR-4 Model Update and System Analysis	Unrestricted	\$ 50,000				\$50,000		
28-29	WWRR-5 CCTV Inspection Phase 2	Unrestricted	\$ 657,000						
28-37	WWRR-6 Address R/R needs from Phase 1 CCTV Program Years 6-10 & 11-20	Unrestricted	\$ 1,786,750 /yr						
23	Asset Management Program Development	Unrestricted	\$ 50,000		\$50,000				
23	Asset Management Software Assessment & Optimization planning	Unrestricted	\$ 15,000		\$15,000				
23	CMMS Purchase & Setup	Unrestricted	\$ 50,000		\$50,000				
23	ArcGIS Purchase & Setup	Unrestricted	\$ 50,000		\$50,000				
24-27	S21-01 WWTP Recycled Pipeline and Pump Station (design only)	Unrestricted	\$ 3,067,700		\$0	\$1,582,567	\$955,067	\$530,067	



Project Delivery (Wastewater)

Delivery				FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Yrs	Scenario 3			\$597,350	\$4,197,350	\$4,197,350	\$197,350	\$197,350
22-24	S-52 WWTP Phase I Upgrades	USDA	\$ 13,402,000					
23	S23-01 Recycled Water - Deliver Recycled Water to Crane Park's Irrigation (Design only)	Unrestricted	\$ 50,000					
26-27	WWTP Pond Cleaning, Decommissioning, and Repurpose	Unrestricted	\$ 1,000,000					
23-27	S18-70 Sewer Replacement Program	Go Bond	\$ 1,240,000	/yr				
24-25	S18-71 Crinella Lift Station Improvements	Go Bond	\$ 1,140,000					
24	WWGM-6 Del Campo Curt	Go Bond	\$ 608,000					
23	WWRR-1CCTV Inspection Program, Phase 1	Go Bond	\$ 222,000					
24	WWRR-2 Flow Monitoring Program	Unrestricted	\$ 60,000					
23-27	WWRR-3 High Priority Pipeline Replacement	Unrestricted	\$ 3,348,000	/yr				
25	WWRR-4 Model Update and System Analysis	Unrestricted	\$ 50,000					
28-29	WWRR-5 CCTV Inspection Phase 2	Unrestricted	\$ 657,000		\$328,500	\$328,500		
28-37	WWRR-6 Address R/R needs from Phase 1 CCTV Program Years 6-10 & 11-20	Unrestricted	\$ 1,786,750	/yr	\$357,350	\$357,350	\$357,350	\$357,350
23	Asset Management Program Development	Unrestricted	\$ 50,000					
23	Asset Management Software Assessment & Optimization planning	Unrestricted	\$ 15,000					
23	CMMS Purchase & Setup	Unrestricted	\$ 50,000					
23	ArcGIS Purchase & Setup	Unrestricted	\$ 50,000					
24-27	S21-01 WWTP Recycled Pipeline and Pump Station (design only)	Unrestricted	\$ 3,067,700					



Project Delivery (Wastewater)

Delivery					FY 2033	FY 2034	FY 2035	FY 2036	FY 2037
Yrs	Scenario 3				\$471,500	\$471,500	\$471,500	\$471,500	\$471,500
22-24	S-52 WWTP Phase I Upgrades	USDA	\$ 13,402,000						
23	S23-01 Recycled Water - Deliver Recycled Water to Crane Park's Irrigation (Design only)	Unrestricted	\$ 50,000						
26-27	WWTP Pond Cleaning, Decommissioning, and Repurpose	Unrestricted	\$ 1,000,000						
23-27	S18-70 Sewer Replacement Program	Go Bond	\$ 1,240,000	/yr					
24-25	S18-71 Crinella Lift Station Improvements	Go Bond	\$ 1,140,000						
24	WWGM-6 Del Campo Curt	Go Bond	\$ 608,000						
23	WWRR-1CCTV Inspection Program, Phase 1	Go Bond	\$ 222,000						
24	WWRR-2 Flow Monitoring Program	Unrestricted	\$ 60,000						
23-27	WWRR-3 High Priority Pipeline Replacement	Unrestricted	\$ 3,348,000	/yr					
25	WWRR-4 Model Update and System Analysis	Unrestricted	\$ 50,000						
28-29	WWRR-5 CCTV Inspection Phase 2	Unrestricted	\$ 657,000						
28-37	WWRR-6 Address R/R needs from Phase 1 CCTV Program Years 6-10 & 11-20	Unrestricted	\$ 1,786,750	/yr	\$357,350	\$357,350	\$357,350	\$357,350	\$357,350
23	Asset Management Program Development	Unrestricted	\$ 50,000						
23	Asset Management Software Assessment & Optimization planning	Unrestricted	\$ 15,000						
23	CMMS Purchase & Setup	Unrestricted	\$ 50,000						
23	ArcGIS Purchase & Setup	Unrestricted	\$ 50,000						
24-27	S21-01 WWTP Recycled Pipeline and Pump Station (design only)	Unrestricted	\$ 3,067,700						



Summary

- Painstaking review of CIP for Water & Wastewater infrastructure
 - What's "in" & What's "out"...
- Operational/Systematic Improvements (IUMP Appendix C, p24, Table 2)
 - How address many/most issues through CIP/Operations
- Proposed schedule for project delivery
 - Including span of Fiscal Years



Questions, Answers & Discussion

