*AMENDED
City of St. Helena
Water and Wastewater Rate Study Advisory Committee
Regular Meeting
St. Helena Fire Department Training Room, 1480 Main Street, (Entrance on Railroad Avenue), St. Helena CA
Wednesday, November 9, 2022 @ 10:00 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 <u>please observe the time limit of four minutes.</u>

		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, Administrative Services Director *11-06-22 AMENDMENT (Member Peter McCrea will participate via Zoom from this location: The Towers at 1661 Pine Street, Apt. 544, San Francisco, CA)	
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 **<u>the Brown Act, the Committee may not engage in substantive discussion, nor take action on matters not described on the agenda.</u>**	
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, **<u>the Brown Act prohibits any other discussion or action by the Water and Wastewater Rate Study Advisory Committee.</u>**	
5.	NEW BUSINESS:	
	5.1. Review and provide input and feedback of the Water and Wastewater Rate Study Financial Plan scenarios and assumptions St. Helena Rate Studies Financial Plan Review	3 - 47
	5.2. Preview rate structure modifications options for evaluation	

5.3. Discuss next steps in the rate study process and review the project timeline

6. ADJOURNMENT

The next regular Water and Wastewater Rate Study Advisory Committee meeting is scheduled for TBD at 10:00 a.m.

This agenda was posted at City Hall, 1572 Railroad Avenue, and at [Place], St. Helena, California on November 6, 2022. Republished 11-06-22 at 6:05 pm

Cindy Tzafopoulos, 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.

City of St. Helena

Water and Wastewater Rate Study

Rate Study Advisory Committee Meeting – November 9, 2022

RAFTELIS

ST. HELENA
NAPA VALLEY'S MAIN STREET

Agenda

- Financial Plans:
  - Key financial assumptions
  - Primary model inputs
  - Preliminary results (financial plan scenarios)
    - Water enterprise
    - Wastewater enterprise
- Rate Structure Modification Options
- Review Rate Studies Project Timeline

Model Inputs and Assumptions

Growth Assumptions – Water and Wastewater

- No new connection growth (0% growth rate)
- Changes to water demand factor relative to most recent year (FY 2022)
  - FY 2023 represents best guess at normal condition demands with which to project

Description	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Account Growth						
SFR	0%	0%	0%	0%	0%	0%
MFR	0%	0%	0%	0%	0%	0%
CG	0%	0%	0%	0%	0%	0%
Industrial	0%	0%	0%	0%	0%	0%
Landscape	0%	0%	0%	0%	0%	0%
Raw	0%	0%	0%	0%	0%	0%
Fire	0%	0%	0%	0%	0%	0%
Water Use Demand Factor	140%	100%	100%	100%	100%	100%

Inflationary Assumptions – Water and Wastewater

- The model uses the adopted budgets in FY 2023
- Elevated inflationary pressures based on current conditions

Description	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Revenue Inflation						
Miscellaneous Revenues	N/A	0%	0%	0%	0%	0%
Reserve Interest Rate	N/A	1%	1%	1%	1%	1%
Expense Inflation						
General	N/A	5.0%	4.2%	3.5%	2.8%	2.8%
Salary	N/A	7.0%	7.0%	5.0%	5.0%	5.0%
Benefits	N/A	6.0%	6.0%	6.0%	6.0%	6.0%
Supplies	N/A	5.0%	4.2%	3.5%	2.8%	2.8%
Utilities	N/A	5.0%	5.0%	5.0%	5.0%	5.0%
Supplemental Water	N/A	4.0%	4.0%	4.0%	4.0%	4.0%
Capital	N/A	5.0%	4.4%	3.8%	3.2%	3.2%

Borrowing Assumptions – Water and Wastewater

- Assumes conventional revenue bonds and normal market conditions

Description	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Revenue Bond Terms										
Interest	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Term (years)	30	30	30	30	30	30	30	30	30	30
Issuance Cost	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
SRF Loan Terms										
Interest	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Term (years)	30	30	30	30	30	30	30	30	30	30
Issuance Cost	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Water Enterprise

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Water Demand Assumptions (HCF)

- Change in annual demands in FY 2023 given assumed change in water demand

Description	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Customer Class	Actuals	Projected	Projected	Projected	Projected	Projected
SFR	160,396	232,574	232,574	232,574	232,574	232,574
MFR	53,210	61,192	61,192	61,192	61,192	61,192
CG	146,821	220,232	220,232	220,232	220,232	220,232
Industrial	40,834	51,043	51,043	51,043	51,043	51,043
Fire	184	214	214	214	214	214
Landscape	9,264	9,264	9,264	9,264	9,264	9,264
Raw	4,411	4,411	4,411	4,411	4,411	4,411
Total Sales (HCF)	**415,120**	**578,928**	**578,928**	**578,928**	**578,928**	**578,928**
Total Sales (AFY)	**953**	**1,329**	**1,329**	**1,329**	**1,329**	**1,329**

Historic Water Demand (HCF)

- Total water use has decreased significantly since FY 2019

Customer Class	FY 2019	FY 2020	FY 2021	FY 2022
SFR	202,374	269,976	256,260	160,396
MFR	67,878	76,683	69,678	53,210
CG	270,839	173,922	150,229	146,821
Industrial	47,999	53,829	48,089	40,834
Fire	1,211	163	353	184
Landscape	11,901	17,177	14,824	9,264
Raw	20,084	25,546	15,354	4,379
Total Sales (HCF)	**622,449**	**617,848**	**555,189**	**415,120**
Total Sales (AFY)	**1,429**	**1,418**	**1,275**	**953**
Annual % Change	***N/A***	***-1%***	***-10%***	***-25%***

Projected Water Connections

Meter Size	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
	Actuals	Projected	Projected	Projected	Projected	Projected
5/8"	2,002	2,002	2,002	2,002	2,002	2,002
3/4"	296	296	296	296	296	296
1"	123	123	123	123	123	123
1 1/2"	70	70	70	70	70	70
2"	63	63	63	63	63	63
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**	**2,586**	**2,586**	**2,586**	**2,586**	**2,586**

Calculated Rate Revenues – Water Enterprise (FY 2020-21 and FY 2021-22)

Fiscal Year	Actual	Model Calculated	Difference ($)	Difference (%)
FY 2021	$6,603,048	$6,693,226	$90,178	1.37%
FY 2022	$5,732,461	$6,022,514	$290,054	5.06%

- Model projects off FY 2022 Actuals to be conservative

Operating and Maintenance (O&M) Expenditures – Water

Description	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
	Budget	Projected	Projected	Projected	Projected	Projected
Operating Expenses	$0.3 M	$0.3 M	$0.3 M	$0.3 M	$0.3 M	$0.3 M
Non-Departmental	$0.0 M	$0.0 M	$0.0 M	$0.0 M	$0.0 M	$0.0 M
Council	$0.3 M	$0.3 M	$0.3 M	$0.4 M	$0.4 M	$0.4 M
Administration	$0.6 M	$0.6 M	$0.7 M	$0.7 M	$0.7 M	$0.8 M
Finance	$0.2 M	$0.2 M	$0.2 M	$0.2 M	$0.2 M	$0.2 M
Attorney	$0.0 M	$0.0 M	$0.0 M	$0.0 M	$0.0 M	$0.0 M
Public Works	$4.3 M	$4.8 M	$5.1 M	$5.3 M	$5.5 M	$5.8 M
Temporary	$1.6 M	$0.0 M	$0.0 M	$0.0 M	$0.0 M	$0.0 M
Total	**$7.3 M**	**$6.3 M**	**$6.6 M**	**$6.9 M**	**$7.2 M**	**$7.5 M**
% Change	**N/A**	**-14.0%**	**5.4%**	**4.6%**	**4.5%**	**4.5%**

Existing Debt/Loan Service - Water

Description	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
2012B Installment Agreement - Water	$0.4 M	$0.4 M	$0.4 M	$0.4 M	$0.4 M
Loan Agreement (Direct Borrowing)	$0.5 M	$0.5 M	$0.5 M	$0.5 M	$0.5 M
Total	**$1.0 M**	**$1.0 M**	**$1.0 M**	**$1.0 M**	**$0.9 M**

Values in the table are rounded

Water Enterprise – Capital Improvement Program (CIP)

- Water CIP
  - 10-year historical annual spend: $1.1 M
  - Forward-looking annual spend: $6.0 M
- ***Only considers CIP funded through rate revenues (cash or future debt service)***
  - *GO Bond proceed funded project(s) are omitted*

Description	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Water	$2.63 M	$6.86 M	$11.08 M	$9.58 M	$2.58 M	$12.84 M	$5.25 M	$5.42 M	$0.26 M	$0.27 M
Recycled Water	$0.00 M	$1.66 M	$1.05 M	$0.60 M	$0.00 M	$0.00 M	$0.00 M	$0.00 M	$0.00 M	$0.00 M
Total	**$2.63 M**	**$8.52 M**	**$12.13 M**	**$10.18 M**	**$2.58 M**	**$12.84 M**	**$5.25 M**	**$5.42 M**	**$0.26 M**	**$0.27 M**

Financial Policies & Cash Balance -Water

- Financial Policies:
  - Reserve Target: 14 Months of Operating Expenses (O&M + Debt Service)
  - Minimum Target: 10 Months of Operating Expenses (O&M + Debt Service)
  - Minimum Debt Service Coverage Ratio: 1.20

- Beginning balance FY 2022-23 (July 1, 2022):
  - $3,295,365 Unrestricted Fund 561 + 763
  - $177,869 Restricted Cash (Fund 764)
  - Total Beginning Balance: **$3,473,235**

Financial Plan Scenarios

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Financial Plan Scenarios

Scenario 1:

- "Historic CIP Spend and Water Demands"
- *5*% revenue adjustments through FY 2028 and 3% for each year after
- No proposed debt and no proposed general fund loan
- This scenario uses historical water demand of 1,700 AFY
- This scenario uses historical CIP spending of $1.1M annually

Scenario 2:

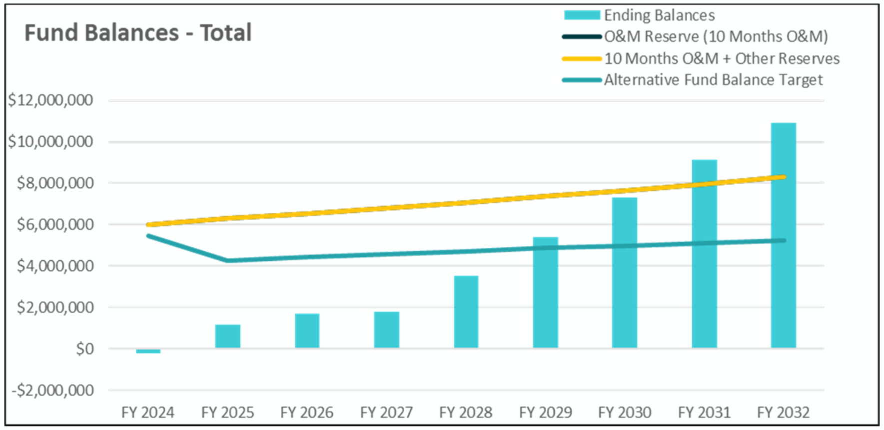
- "Historic CIP Spend and Reduced Water Demands"
- 6% revenue adjustments in each year of the study period
- Assumes proposed debt of $3M in FY 2024, $4M in FY 2027, and $5M in FY 2030
- Assumes a general fund loan of $3M in FY 2024
- This scenario uses reduced water demand of 1,300 AFY
- This scenario uses historical CIP spending of $1.1M annually

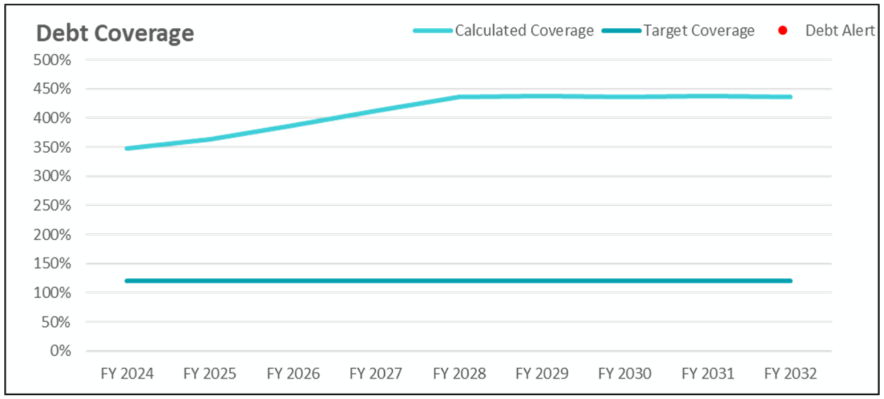
Scenario 3:

- "Projected CIP Needs & Reduced Water Demands"
- 60% revenue adjustment in FY 2024, and 4% every year after
- Assumes proposed debt of $30M in FY 2024, and $20M in FY 2027
- This scenario uses reduced water demand of 1,300 AFY
- This scenario uses City staff's projected CIP needs

Scenario 1 (Historic CIP Spend and Water Demands)

Fiscal Year	Revenue Adjustment	Proposed Debt	Proposed General Fund Loan
FY 2024	5%	$0.00	$0.00
FY 2025	5%	$0.00	$0.00
FY 2026	5%	$0.00	$0.00
FY 2027	5%	$0.00	$0.00
FY 2028	5%	$0.00	$0.00
FY 2029	3%	$0.00	$0.00
FY 2030	3%	$0.00	$0.00
FY 2031	3%	$0.00	$0.00
FY 2032	3%	$0.00	$0.00



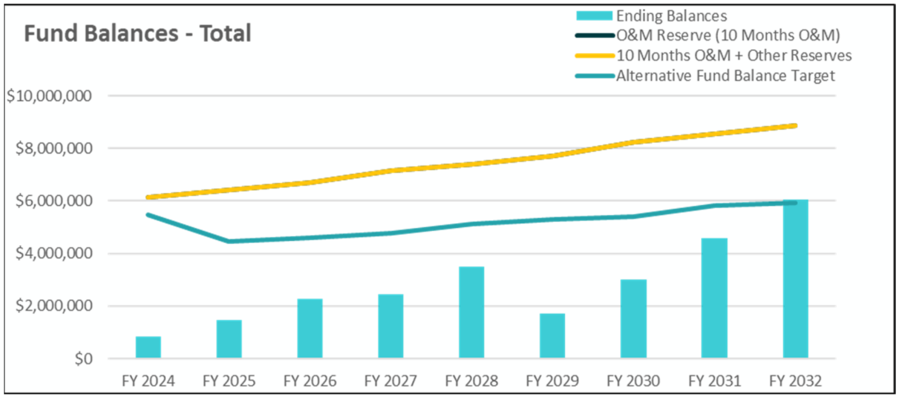


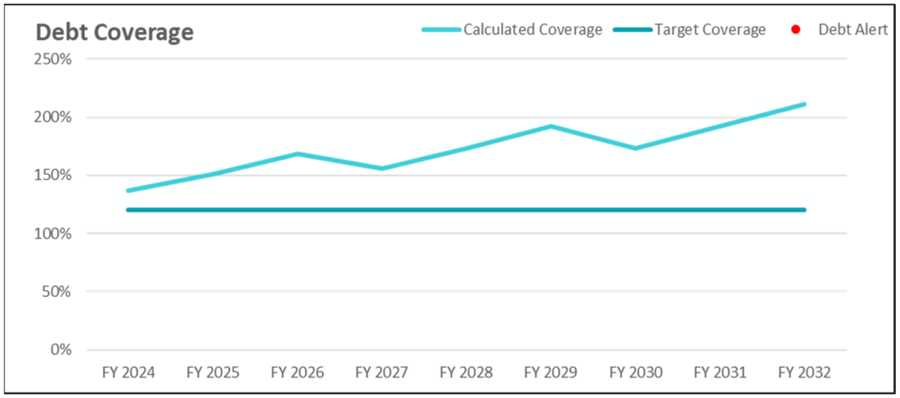
- This scenario uses water demands of 1,700 AFY instead of 1,300 AFY and
- CIP spending of $1.1M per year

Scenario 2 (Historic CIP Spend and Reduced Water Demands)

Fiscal Year	Revenue Adjustment	Proposed Debt	Proposed General Fund Loan
FY 2024	6%	$3,000,000	$3,000,000
FY 2025	6%	$0	$0
FY 2026	6%	$0	$0
FY 2027	6%	$4,000,000	$0
FY 2028	6%	$0	$0
FY 2029	6%	$0	-$3,000,000
FY 2030	6%	$5,000,000	$0
FY 2031	6%	$0	$0
FY 2032	6%	$0	$0

- This scenario uses water demands of 1,300 AFY instead of historic demands
- CIP spending of $1.1M per year

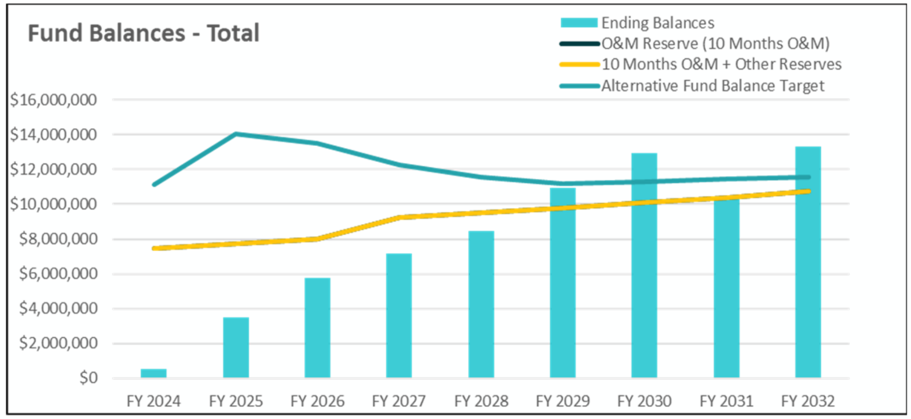


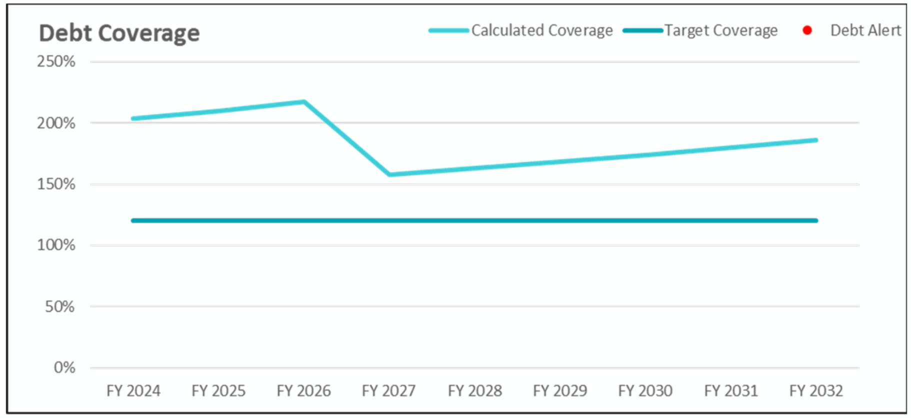


Scenario 3 (Projected CIP Needs & Reduced Water Demands)

Fiscal Year	Revenue Adjustment	Proposed Debt	Proposed General Fund Loan
FY 2024	60%	$30,000,000	$0
FY 2025	4%	$0	$0
FY 2026	4%	$0	$0
FY 2027	4%	$20,000,000	$0
FY 2028	4%	$0	$0
FY 2029	4%	$0	$0
FY 2030	4%	$0	$0
FY 2031	4%	$0	$0
FY 2032	4%	$0	$0

- 1,300 AFY water sales, avg. $6 M annual CIP
- Large one-time rate increase required to maintain positive fund balance and achieve min debt service coverage
- Then, immediate lower increases to not over-fund reserves





Financial Plan Discussion

- Significantly reduced water demands equal significantly reduced rate revenues
  - 50% of rate revenues are from water sales
- Inflationary pressure on operating costs and unanticipated temporary/contracted operating expenses quickly reduce fund balance and debt capacity
- Baseline CIP quickly increases from a historical spend of approx. $1.1 M to $6.0 M annually

Wastewater Enterprise

Wastewater Flow Assumptions

- Residential based on average winter consumption (AWC) calculation
- Non-Residential based on actual period water use

Description	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
	Actuals	Projected	Projected	Projected	Projected	Projected
Residential (Average Winter Consumption)						
Single Family	83,160	83,160	83,160	83,160	83,160	83,160
Multi Unit	33,396	33,396	33,396	33,396	33,396	33,396
Mobile Home	14,604	14,604	14,604	14,604	14,604	14,604
Non-Residential (Water Use)						
Car Wash	544	544	544	544	544	544
Religious Places/Community Centers	2,008	2,008	2,008	2,008	2,008	2,008
Commercial	20,944	20,944	20,944	20,944	20,944	20,944
Groceries and Mortuaries	999	999	999	999	999	999
Laundry	3,515	3,515	3,515	3,515	3,515	3,515
Mixed Retail	1,902	1,902	1,902	1,902	1,902	1,902
Lodging with Food	4,158	4,158	4,158	4,158	4,158	4,158
Lodging without Food	7,690	7,690	7,690	7,690	7,690	7,690
Restaurant	6,836	6,836	6,836	6,836	6,836	6,836
Napa Valley College	3,988	3,988	3,988	3,988	3,988	3,988
Service Station	968	968	968	968	968	968
Winery Pre-Treated	1,555	1,555	1,555	1,555	1,555	1,555
Winery Non-Treated	806	806	806	806	806	806
Schools	6,013	6,013	6,013	6,013	6,013	6,013
Total - Usage (ccf)	**193,086**	**193,086**	**193,086**	**193,086**	**193,086**	**193,086**

Projected Wastewater Connections

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	1,526	1,526	1,526	1,526	1,526
MFR	673	673	673	673	673	673
Mobile Home	212	212	212	212	212	212
Total Residential Dwelling Units	**2,411**	**2,411**	**2,411**	**2,411**	**2,411**	**2,411**
Accounts						
SFR	1,506	1,506	1,506	1,506	1,506	1,506
MFR	100	100	100	100	100	100
Mobile Home	2	2	2	2	2	2
Total Residential Accounts	**1,608**	**1,608**	**1,608**	**1,608**	**1,608**	**1,608**
Non-Residential Meters						
5/8"	207	207	207	207	207	207
1"	117	117	117	117	117	117
1.5"	43	43	43	43	43	43
2"	20	20	20	20	20	20
3"	20	20	20	20	20	20
4"	2	2	2	2	2	2
6"	4	4	4	4	4	4
Total Meters	**413**	**413**	**413**	**413**	**413**	**413**

Calculated Rate Revenues – Wastewater Enterprise (FY 2020-21 and FY 2021-22)

Fiscal Year	Actual	Model Calculated	Difference ($)	Difference (%)
FY 2021	$3,391,948	$3,078,541	($313,407)	-9%
FY 2022	$3,325,532	$3,392,686	$67,154	2%

Operating and Maintenance (O&M) Expenditures – Wastewater

- Summary by department

Description	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
	Budget	Projected	Projected	Projected	Projected	Projected
Non-Departmental	$0.2 M	$0.3 M	$0.3 M	$0.3 M	$0.3 M	$0.3 M
Council	$0.0 M	$0.0 M	$0.0 M	$0.0 M	$0.0 M	$0.0 M
Administration	$0.2 M	$0.2 M	$0.2 M	$0.2 M	$0.2 M	$0.3 M
Finance	$0.5 M	$0.5 M	$0.5 M	$0.5 M	$0.5 M	$0.6 M
Attorney	$0.0 M	$0.0 M	$0.0 M	$0.0 M	$0.0 M	$0.0 M
Public Works	$2.2 M	$2.6 M	$2.7 M	$2.8 M	$2.9 M	$3.1 M
Temp/Part Time (WWTP Temporary Operators)	$0.7 M	$0.6 M	$0.0 M	$0.0 M	$0.0 M	$0.0 M
Total	**$3.9 M**	**$4.2 M**	**$3.8 M**	**$3.9 M**	**$4.1 M**	**$4.3 M**
% Change	**N/A**	**8.6%**	**-10.3%**	**4.4%**	**4.2%**	**4.2%**

Existing Debt/Loan Service - Wastewater

Description	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
2005B Installment Agreement	$0.1 M	$0.1 M	$0.1 M	$0.1 M	$0.1 M	$0.1 M	$0.1 M	$0.1 M	$0.1 M	$0.0 M
2012B Installment Agreement - Wastewater	$0.1 M	$0.1 M	$0.1 M	$0.1 M	$0.1 M	$0.1 M	$0.1 M	$0.1 M	$0.1 M	$0.1 M
Total	**$0.3 M**	**$0.3 M**	**$0.3 M**	**$0.3 M**	**$0.3 M**	**$0.3 M**	**$0.3 M**	**$0.3 M**	**$0.3 M**	**$0.1 M**

- Estimated USDA Loan Service – $14.3M Issue, Principal + Interest @ 2% and 30 years
  - Raftelis calculated an estimated annual loan service as none was provided to us

Description	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
USDA Loan	$0.6 M	$0.6 M	$0.6 M	$0.6 M	$0.6 M	$0.6 M	$0.6 M	$0.6 M	$0.6 M	$0.6 M

Wastewater Enterprise –
Capital Improvement Program (CIP)

- Sewer CIP
  - 10-year historical annual spend (rate funded): $0.9 M
  - Forward-looking annual spend (rate funded): $1.4 M
- **Only considers CIP funded through rate revenues (cash or future debt service)**
  - *GO Bond proceed funded project(s) are omitted*
  - Totals are net of USDA Loan proceeds

Description	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Sewer	$6.45 M	$2.19 M	$0.86 M	$1.39 M	$1.37 M	$0.83 M	$0.86 M	$0.46 M	$0.48 M	$0.49 M
Recycled Water	$0.00 M	$1.66 M	$1.05 M	$0.60 M	$0.00 M	$0.00 M	$0.00 M	$0.00 M	$0.00 M	$0.00 M
Total	**$6.45 M**	**$3.85 M**	**$1.91 M**	**$1.99 M**	**$1.37 M**	**$0.83 M**	**$0.86 M**	**$0.46 M**	**$0.48 M**	**$0.49 M**

Financial Policies & Cash Balance - Wastewater

- Financial Policies:
  - Reserve Target: 8 Months of Operating Expenses (O&M + Debt Service)
  - Minimum Target: 6 Months of Operating Expenses (O&M + Debt Service)
  - Minimum Debt Service Coverage Ratio: 1.20

- Beginning balance FY 2022-23 (July 1, 2022):
  - $5,413,832 Unrestricted (Fund 571 + 773)
  - $605,841 Restricted Cash (Fund 774) currently excluded from beginning balance
  - Total Beginning Balance: **$6,019,674**

Financial Plan Scenarios

Financial Plan Scenarios

Scenario 1

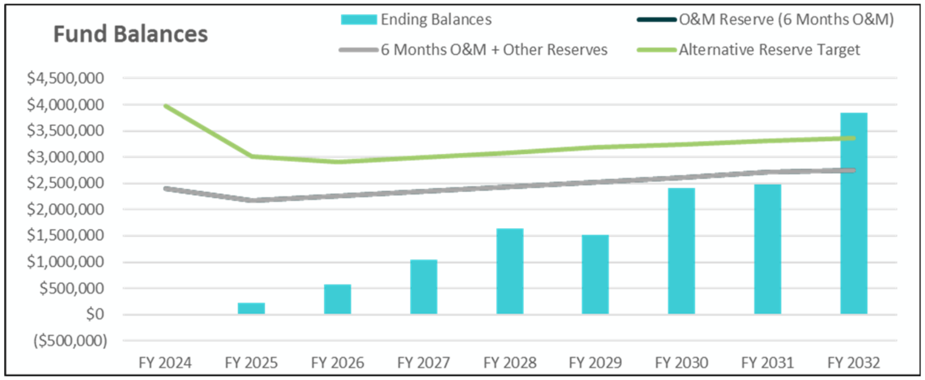
- "Historical CIP Spend"
- 55% Revenue adjustment in FY 2024, and 5.5% each year after
- Assumes a general fund load in FY 2023 of $873,610, and $1,000,000 in FY 2024
- This scenario uses historical CIP spending of $0.9 M annually

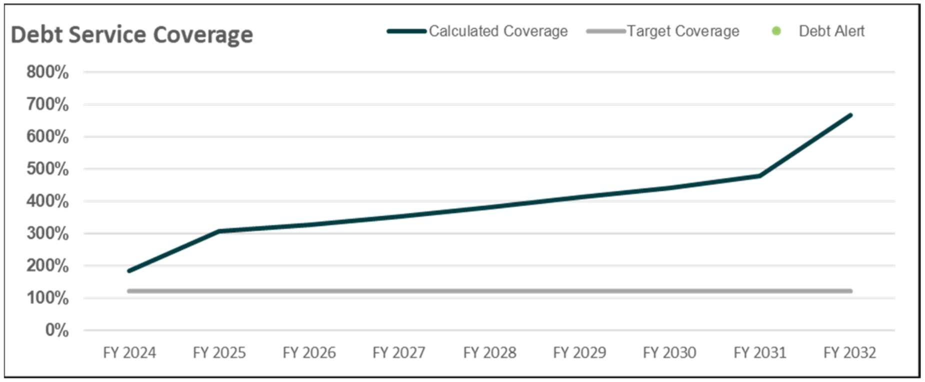
Scenario 2

- "Baseline"
- 60% revenue adjustment in FY 2024, 15% in FY 2025, and 2% each year after
- Assumes a general fund loan in FY 2023 of $873,610, and $1,000,000 in FY 2024
- Assumes $5.5M proposed debt in FY 2024
- This scenario uses projected CIP needs

Scenario 1 (Historical CIP Spend)

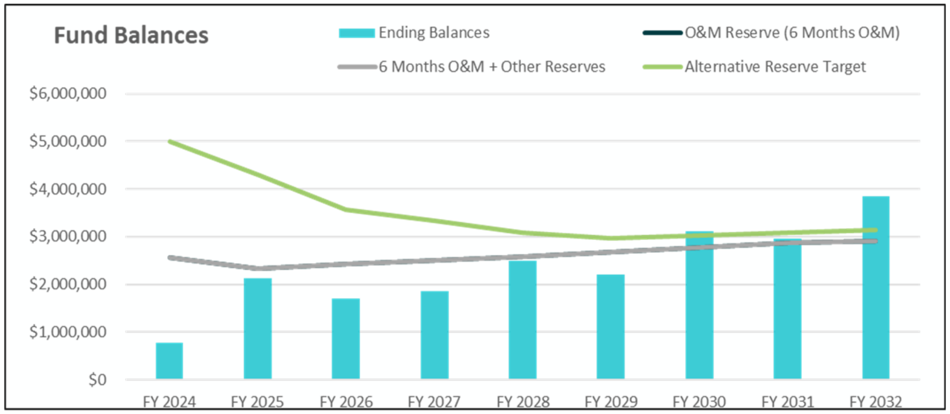
Fiscal Year	Revenue Adjustment	Proposed Debt	Proposed General Fund Loan
FY 2023	0%	$0	$873,610
FY 2024	55%	$0	$1,000,000
FY 2025	5.5%	$0	$0
FY 2026	5.5%	$0	$0
FY 2027	5.5%	$0	$0
FY 2028	5.5%	$0	$0
FY 2029	5.5%	$0	-$873,610
FY 2030	5.5%	$0	$0
FY 2031	5.5%	$0	-$1,000,000
FY 2032	5.5%	$0	$0

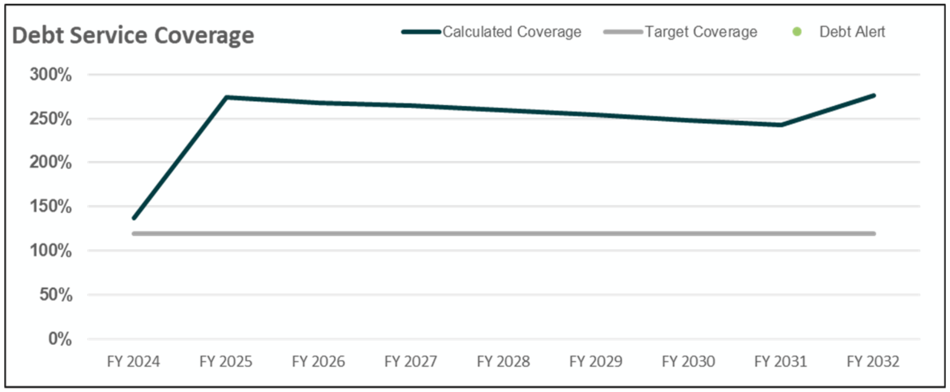




Scenario 2 (Projected CIP Needs)

Fiscal Year	Revenue Adjustment	Proposed Debt	Proposed General Fund Loan
FY 2023	0%	$0	$873,610
FY 2024	60%	$5,500,000	$1,000,000
FY 2025	15%	$0	$0
FY 2026	2%	$0	$0
FY 2027	2%	$0	$0
FY 2028	2%	$0	$0
FY 2029	2%	$0	-$873,610
FY 2030	2%	$0	$0
FY 2031	2%	$0	-$1,000,000
FY 2032	2%	$0	$0





Financial Plan Discussion

- Treatment Plant upgrades project is approximately $3M over original estimate
- Inflationary pressure on operating costs and
- Unanticipated temporary/contracted operating expenses reduce fund balance and debt service coverage
- Budgeted CIP spend from approximately $0.9 M per year to $1.4 M adds pressure to fund balance
- Ultimately, the significant year-one revenue increase is required due to operating cost pressure and recent CIP, not the future capital program

Rate Design Options

KEY OBJECTIVES – RATE STRUCTURE APPROACHES

Financial Stability

- Maintain a high level of fixed charges
- Evaluate tiered water rates with few tiers
- Evaluate a fixed wastewater charge for Residential users

Conservation

- Aggressive tier breakpoints (smaller allocation in the lower tier(s))
- Maximize tiered rate differential to the greatest degree possible
- Higher level of variable rate revenues

Equity

- Evaluate several water rate classes (e.g., Residential, MFR, Irrigation, Commercial, etc.)
- Maintain numerous non-residential wastewater strength classes
- Follow through evaluation of Inside/Outside City rates and elevation surcharges

Proposed Water Rate Classes

Customer Class	Peaking Factor (Max Period Use / Avg. Period Use)
Single Family Residential (SFR)	1.56
Multi-Family Residential (MFR)	1.26
Commercial	1.21
Industrial	2.07
Landscape Irrigation	1.98
Raw Water	1.86

Single Family Demand Patterns/Peaking

Description	Definition	Water Demand St. Helena 2019 (HCF/Period)	Water Demand St. Helena 2019 (HCF/Month)
Essential Indoor	37.5 gpcd for 2-person household	6.0	3.0
Low Billing Period (Winter)	March-April Billing Period	7.1	3.6
Average Winter	Jan-April 2019	7.6	3.8
Efficient Indoor	55 gpcd for 2-person household	9.0	4.5
Average Annual	2019 Single Family Residential	16.5	8.3
Average Summer	July-Oct 2018	28.5	14.3
Peak Billing Period (Summer)	July-August 2018 Billing Period	30.5	15.3

Tier Definition – Preliminary Options

Tier	Option 1: Two-Tier	Option 2: Three-Tier	Option 3: Three-Tier
Tier 1	Efficient Indoor – 55 GPCD (Household of 2)	Winter Use	Winter Use
Tier 2	Greater than Tier 1	Annual Average Use	Summer Demands
Tier 3		Greater than Tier 2	Greater than Tier 2

Note: The average household size is approximately 2 people per household and average monthly consumption has been significantly reduced over time

Residential Tier Definition Options – HCF per Billing Period

Tier	Option 1: Two-Tier	Option 2: Three-Tier	Option 3: Three-Tier
Tier 1	0-9 HCF	0-8 HCF	0-8 HCF
Tier 2	>9 HCF	9-18 HCF	9-30 HCF
Tier 3		>18 HCF	> 30 HCF

Elevation Surcharges

- Would apply to Zones 2, 3, and 4
  - Zone 1 and Zone 5 are both considered base elevation zones
- Surcharge would be based on the variable costs of electricity to move water to each respective zone
- Fixed costs of pumping and storage assets benefit all water customers
  - In times of emergency outages or system interruptions these facilities are utilized to maintain service across the lower zones (1 and 5) where almost all customer connections are located
- Surcharge would be charged in $/HCF based on a customer’s water use
- Separate, unique surcharges would apply for Zones 2, 3, and 4

Inside/Outside City Rates (Water)

- Possible Differential:
  - Pipe replacement projects benefiting outside City customers, paid for by GO Bond proceeds
  - Need to weigh against any capital projects that all customers (Inside and Outside City) pay for but only benefit Inside City
- Differential would be a $/HCF rate surcharge to repay Inside City customers for their investment in Outside City water distribution pipeline
  - Would be calculated to repay over a set number of years and then sunset

Wastewater Rate Structure Options

User Class	Option 1: Existing Structure	Option 2: Residential Service Charge	Option 3: Commercial Min. Charge
Residential	Fixed by Dwelling Unit + Variable by AWC*	Fixed Bill by Dwelling Unit	Fixed by Dwelling Unit + Variable by AWC
Commercial	Fixed by Meter Size + Variable by Water Use	Fixed by Meter Size + Variable by Water Use	Fixed by Connection + Variable by Water Use

- Can also consider the combination of Options 2 and 3

*AWC = Average Winter Consumption, which is used to set the flow units for the following 12 months

Next Steps

- December Meeting
  - Revised / Alternative Financial Plans
  - Preliminary Base Rates
- January and Beyond
  - Final Base Rates
  - Drought Rates, Elevation Surcharges, Outside City Evaluation

Thank you

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