

Technical Memorandum

To: Scott Fleury, Public Works Director

From: Catherine Hansford

Date: October 25, 2023

Subject: Water Rates Update

Purpose

The City of Ashland (City) charges water utility rates for provision of water services. In 2015, Hansford Economic Consulting LLC (HEC) completed a full cost-of-service study for the City and water rates were updated pursuant to that Study. Since then, the City has made some percentage increases in the rates to account for rising costs, and revision of some major capital improvement plans, most notably for the water treatment plant; however, water rates have not increased since July 1, 2019. HEC has updated the water rates projection per the City's current water fund financial needs, including its updated infrastructure costs and financing strategy to complete its new water treatment plant. This memorandum presents the analysis of current and future financial health of the water utility fund, including projection of water rates for revenue sufficiency for the next five years. New water rates need to be implemented in January 2024.

Support tables are included in **Attachment A**.

Major Findings

The financial analysis makes the following major findings:

1. The water utility fund is in a strong financial position, but to remain fiscally healthy, rates will need to continue to be increased due to major infrastructure costs, most notably the construction of the new water treatment plant, as well as typical annual inflationary pressures on operations costs. The analysis projects that six 10% increases will be needed, beginning January 2024, followed by five increases each July, beginning July 2024.
2. The water fund needs to maintain a high cash balance until the new water treatment plant project is completed. Actual costs may be greater than estimated, and the project may take longer to complete than anticipated. In addition, the City has several other high-cost capital projects taking place over the same timeframe that require reimbursement from other parties: (a) The Talent-Ashland-Phoenix Water System (TAP) partners and (b) an American Rescue Plan Act (ARPA) grant. Strong reserves are necessary for cash flow purposes when capital outlay is made on a reimbursement basis.

- 3. The City should conduct a cost-of-service study to ensure customer groups are paying for their share of water service costs, and to ensure a rate design that reflects customer use characteristics and administrative goals of the water fund. This memorandum presents the percentage increases of existing water rates as a full water rates study requires greater time and resources to complete.

Table 1 on the next page summarizes the projected water rates for the current and next two bienniums (six fiscal years). **Figure 1** shows the financial impact to a single-family home using 1,000 cubic feet of water in a month. Per Environmental Protection Agency and State of Oregon measurements of cost burden reasonableness (explained in this memorandum), monthly water bills will continue to be affordable in Ashland with these rate increases.

If the City’s water rates had increased with the West Region Consumer Price Index between June 2019 and June 2023, the water bill for a household using 1,000 cubic feet would be \$73.89 starting July 1, 2023, as the cost of goods in the western US has increased 20% since 2019. The water rates for January 2024 (\$67.89) are lower than they would be by applying the 20% increase (\$73.89); this shows the City is spending prudently and managing its resources efficiently.

Figure 1
Single Family Home Bill for 1,000 cubic feet

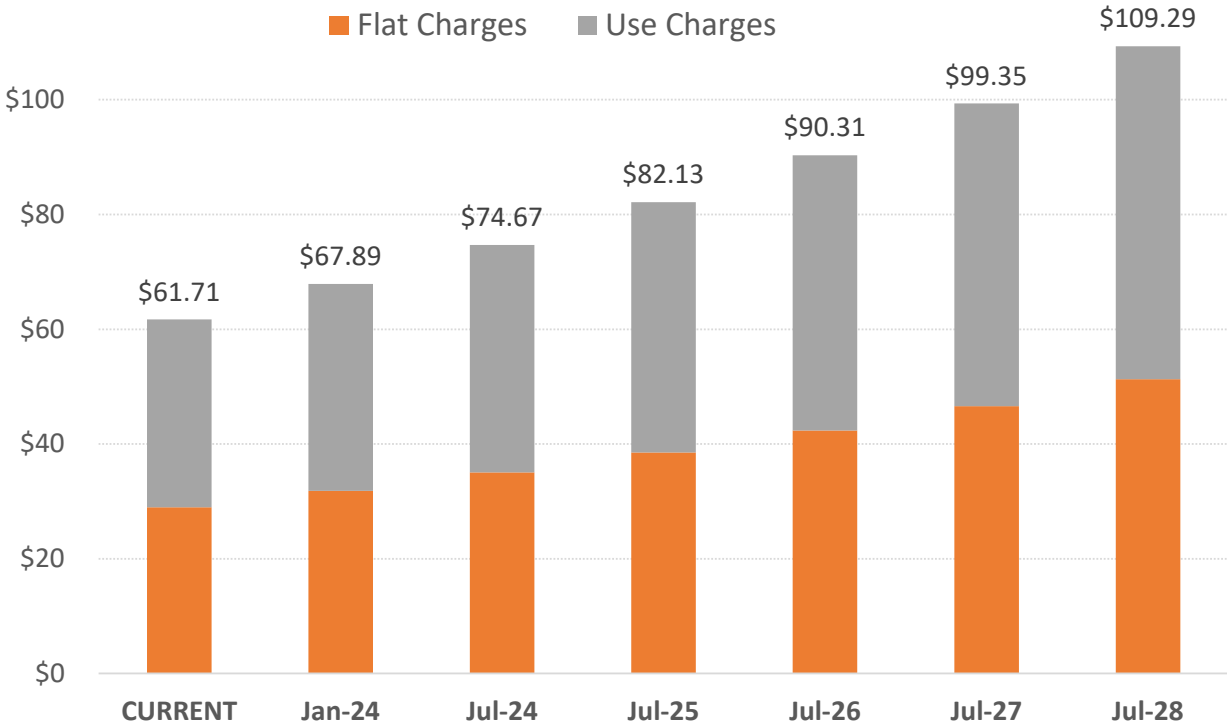


Table 1
Summary of Rate Increases for the next Six Years

Rate Component	Rates Implementation						
	Current	1/1/2024	7/1/2024	7/1/2025	7/1/2026	7/1/2027	7/1/2028
		10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Monthly Customer Charge per Bill	\$13.33	\$14.66	\$16.13	\$17.74	\$19.51	\$21.46	\$23.61
Monthly Service Charge per Meter [1]							
3/4" and Fire Guards	\$15.62	\$17.18	\$18.90	\$20.79	\$22.87	\$25.16	\$27.68
1"	\$16.29	\$17.92	\$19.71	\$21.68	\$23.85	\$26.24	\$28.86
1.5"	\$74.52	\$81.97	\$90.17	\$99.19	\$109.11	\$120.02	\$132.02
2"	\$118.41	\$130.25	\$143.28	\$157.61	\$173.37	\$190.71	\$209.78
3"	\$237.45	\$261.20	\$287.32	\$316.05	\$347.66	\$382.43	\$420.67
4"	\$376.59	\$414.25	\$455.68	\$501.25	\$551.38	\$606.52	\$667.17
6"	\$741.01	\$815.11	\$896.62	\$986.28	\$1,084.91	\$1,193.40	\$1,312.74
8"	\$1,174.75	\$1,292.23	\$1,421.45	\$1,563.60	\$1,719.96	\$1,891.96	\$2,081.16
USE CHARGES FOR POTABLE WATER							
Residential [2]				per month, per unit			
0 to 300 cf	\$0.0280	\$0.0308	\$0.0339	\$0.0373	\$0.0410	\$0.0451	\$0.0496
301 to 1,000 cf	\$0.0348	\$0.0383	\$0.0421	\$0.0463	\$0.0509	\$0.0560	\$0.0616
1001 to 2,500 cf	\$0.0472	\$0.0519	\$0.0571	\$0.0628	\$0.0691	\$0.0760	\$0.0836
> 2,500 cf (2,501 - 3,600 cf June to Sept)	\$0.0609	\$0.0670	\$0.0737	\$0.0811	\$0.0892	\$0.0981	\$0.1079
> 3,600 cf (June to Sept only)	\$0.0784	\$0.0862	\$0.0948	\$0.1043	\$0.1147	\$0.1262	\$0.1388
Commercial				per month, per meter			
0-50,000 cf	\$0.0348	\$0.0383	\$0.0421	\$0.0463	\$0.0509	\$0.0560	\$0.0616
> 50,000 cf	\$0.0472	\$0.0519	\$0.0571	\$0.0628	\$0.0691	\$0.0760	\$0.0836
Insitutional	\$0.0334	\$0.0367	\$0.0404	\$0.0444	\$0.0488	\$0.0537	\$0.0591
Commercial & Institutional Irrigation							
October - May	\$0.0376	\$0.0414	\$0.0455	\$0.0501	\$0.0551	\$0.0606	\$0.0667
June - September	\$0.0510	\$0.0561	\$0.0617	\$0.0679	\$0.0747	\$0.0822	\$0.0904
Bulk Water [3]	\$0.0384	\$0.0422	\$0.0464	\$0.0510	\$0.0561	\$0.0617	\$0.0679
Fire Protection Service [4]							
Meter Replacement Charge	\$1.34	\$1.47	\$1.62	\$1.78	\$1.96	\$2.16	\$2.38
Meter Charge	\$15.62	\$17.18	\$18.90	\$20.79	\$22.87	\$25.16	\$27.68
Service Charge, if applicable	\$13.33	\$14.66	\$16.13	\$17.74	\$19.51	\$21.46	\$23.61
Usage Charges	\$0.0384	\$0.0422	\$0.0464	\$0.0510	\$0.0561	\$0.0617	\$0.0679
TID Non-Potable Water				per irrigation season, per acre or portion of			
Unmetered Service	\$241.18	\$265.30	\$291.83	\$321.01	\$353.11	\$388.42	\$427.26
Metered Service:							
Service Charge				per meter as above			
Meter Replacement Fee [5]				per meter as above			
Water Consumption per c.f.	\$0.0025	\$0.0028	\$0.0031	\$0.0034	\$0.0037	\$0.0041	\$0.0045

Outside City Limits

All rates and charges for water service provided outside the city limits will be 1.5 times the inside city rates and charges.

Source: City of Ashland.

sum rates

[1] All customers charged the flat monthly fees every month regardless of whether water is taken.

[2] For residential customers with separate irrigation meters the metered irrigation water is added to the domestic water use. Irrigation water is charged the 301 to 1,000 cf rates for use 0 to 1,000 cf.

[3] For temporary water provided through a bulk meter on a fire hydrant.

[4] This rate shall apply to all water taken through fire protection services or fire guards.

[5] Due once per year on first TID non-potable water bill.

Methodology

The water rate analysis presented in this memorandum is not a full cost of service study examining proportionate costs to different customer groups; rather, it projects financial needs over the current and next two bienniums, and how to fund those needs. Water rate revenues are projected under various assumptions including these:

- Water demand is projected to stay static over the next ten years. Although new water customers may hook into the water system during this period, other factors may cause water demand to remain at their current level, or even decrease. Factors that affect demand include, amongst other factors, the weather, water restrictions, and installation of more water efficient water appliances. **Table A-1** presents historical water production for the past eleven years. The table demonstrates the variability of water demand from year to year and it also shows that total water produced to satisfy demand decreased between 2013 and 2022. Water production has been greater in 2023, likely due to the ending of the most recent drought.
- Operating expenses, which account for annual costs to run the water system excluding any major capital repairs or new infrastructure installations, are projected through the six-year period based on historical annual increases in cost as well as City staff input on anticipated future cost increases in the current biennium. Historical water fund expenses from 2016 through 2022 are presented in **Table A-2**. On average, expenses increased 3.7% per year over the six-year period. The projection of revenue requirement is based on the historical changes of costs by cost category, and for the next two bienniums, ranges between 4.2% and 4.7% each year.
- Aside from water rate revenues, the water fund receives non-potable water revenues from customers using the Talent Irrigation Ditch (TID), and other miscellaneous income such as interest income and new service installation charges. These revenues are credited against the estimated annual costs to determine the revenue requirement (the amount of money that must be raised through water rates). System development charges, which are specifically collected to mitigate new development's impact on the water system, are not credited against revenues to be raised by rates. Revenues that are credited in the analysis are based on historical and budgeted numbers, as well as conservative estimates of future revenues. Historical revenues are presented in **Table A-3**. Total water sales have remained similar each year since 2019 due to the freezing of water rates.
- In addition to operating expenses, the water utility fund incurs costs for capital expenditures. Capital expenditures include costs to rehabilitate major infrastructure components, and/or install new or replacement facilities. **Table A-4** presents the City's Capital Improvements Plan (CIP) for water for current and next two bienniums. The City's estimated costs were increased for inflation annually over the next five years, apart from the water treatment plant estimated costs as the engineering estimates for that project already include inflation in the project cost estimates.

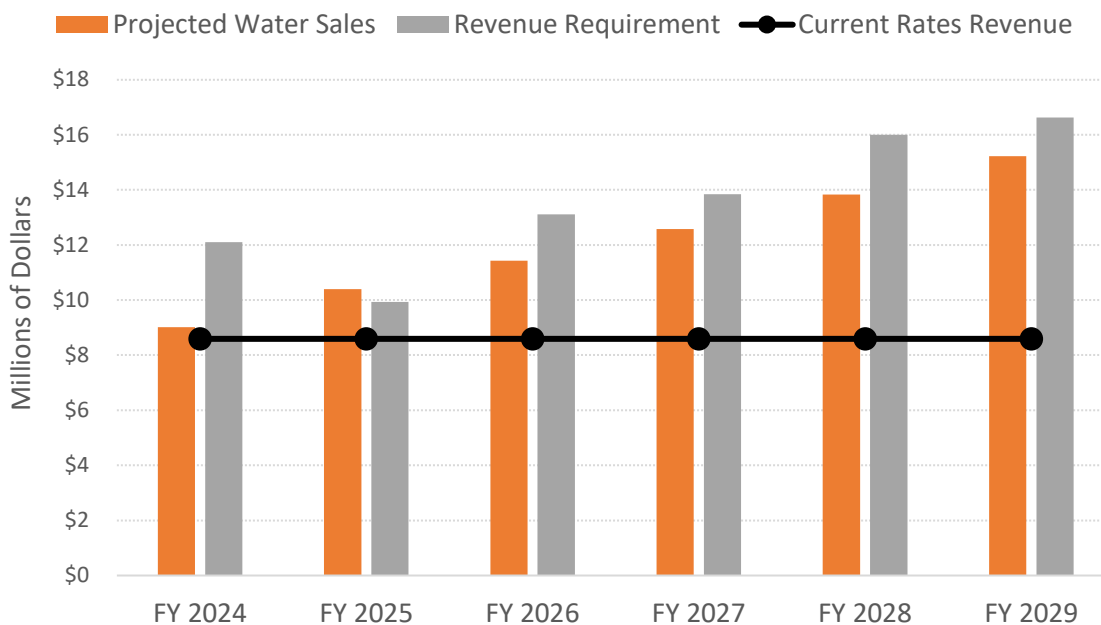
- The City's financial advisor has provided a funding strategy for the new water treatment plant total estimated cost of \$70 million. The City has secured a Water Infrastructure Finance and Innovation Act (WIFIA) loan for the full amount of \$70 million. The water fund's existing debt service and the estimated new water treatment plant debt service is shown in **Table A-5**.
- The water rate analysis assumes additional City debt funding to complete the CIP within the six-year period. **Table A-6** shows the financing costs and estimated annual debt service assumptions to raise bond proceeds of \$6.7 million to fund dam safety improvements.
- The projected revenue requirement for each year in the forecast is presented in **Table A-7**. The revenue requirement is estimated to increase from approximately \$12.0 million this fiscal year to \$16.5 million in five years. The revenue requirement may go up and down in the in-between years because of cash-funded capital improvement costs and debt service schedules.
- One of the revenue credits in the analysis is rate revenue from TID raw water customers. City rates charged to TID customers are assumed to increase at the same percentage increase as all other City water customer fees. A cost-of-service analysis may demonstrate the need for TID customer rates to increase at different rates; however, the same is assumed for the purposes of this analysis. TID revenue projections are provided in **Table A-8**.
- It is preferable to adopt a smooth rate schedule that does not increase and decrease each year to exactly account for the revenue requirement. Based on the assumption that water demand is static, as previously discussed, the water revenues are increased by 10% in January 2024, followed by five annual 10% increases beginning July 2024. **Table A-9** presents the estimated cash flow for the water fund through fiscal year ending 2029. The table demonstrates at least 115% debt service coverage is achieved and positive net revenue is generated after accounting for operating expenses and debt service. The ending cash balance each year is an estimate of available cash for restricted, committed and unassigned water service or project needs. Per terms of the WIFIA loan, the City could establish a Rate Stabilization Fund if it chooses to do so.

Excluded from the cash flow analysis are loan funds and bond proceeds received by the City, and project costs funded by those loans and bond proceeds. The analysis excludes these because of the unknown timing of the projects' expenditures and revenues. Debt service for these projects is included in the cash flow analysis. As a result, actual cash balances may be significantly greater or lesser from one year to the next than shown in the table.

Results

Revenue generated by water rates must be sufficient to cover all operating expenses each year and debt service coverage and raise sufficient revenue to fund capital projects that are not debt-financed or covered by existing reserves. **Figure 2** shows the current level of water sales revenues, projected revenue requirement, and projected water sales under the calculated percentage increases in water rates, beginning January 2024. The graph shows that a portion of the cash-funded capital improvement costs included in the revenue requirement will be paid for with water fund reserves that have been accumulated for this purpose.

Figure 2
Revenue Requirement and Projected Water Sales



Historical and projected annual ending cash balances are shown in **Figure 3**. The cash balance is projected to have peaked in fiscal year ending 2023 as reserves were being increased to fund upcoming known capital project costs. The City will use a combination of grants, loans, rates revenue and cash reserves to pay for capital improvement costs over the next six years.

Figure 4 shows the projected total cash balance of the water fund through fiscal year 2029, and the target minimum cash balance. The target minimum cash balance is equivalent to 20% of revenues plus one year of debt service (excluding City General Obligation bonds and the WIFIA loan, which are not secured by bond reserves). This amount enables the City to respond to emergency expenses, decreased revenues due to drought and fires if structures are destroyed, and to put aside one year of debt service, which is typically required to be held in a restricted account per the terms of the loan.

Figure 3
Historical and Projected Water Fund Cash Balance

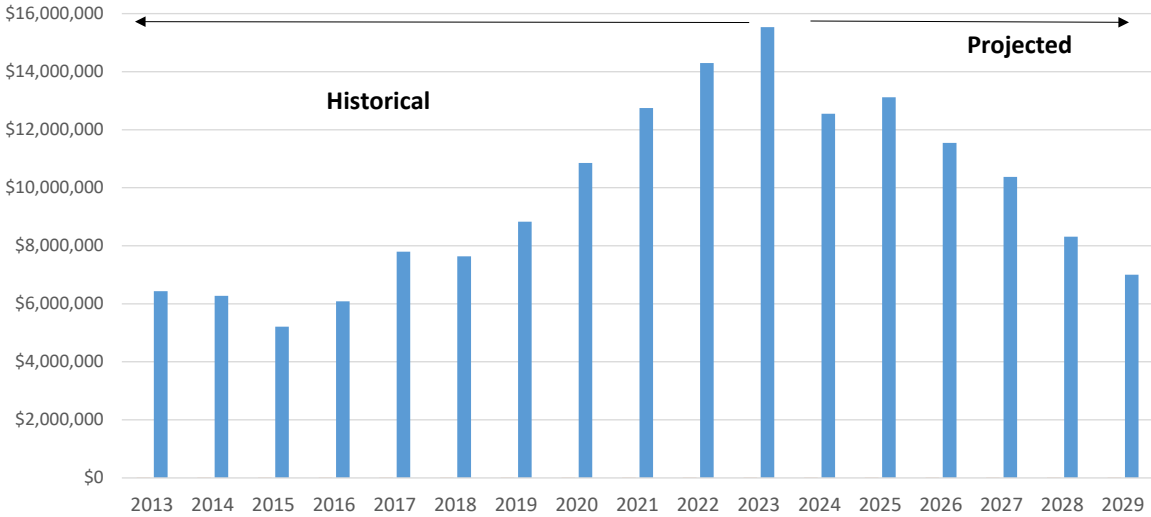
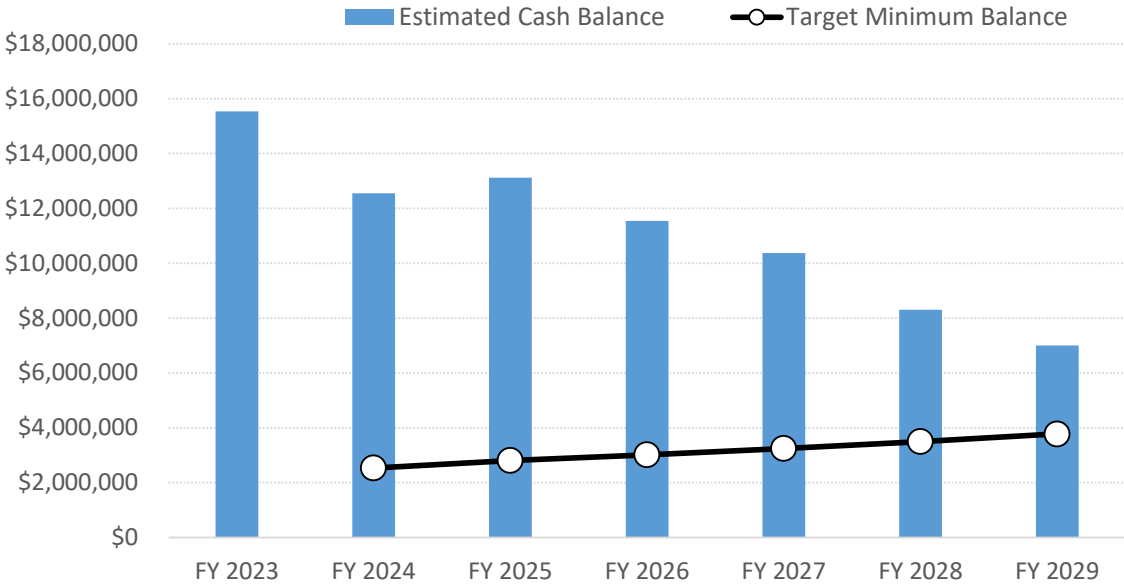


Figure 4
Projected Water Fund Cash Balance



Impact on Residential Customers

The EPA considers a water bill under 2.0% of median household income to be affordable. Currently, the water bill is \$61.71 (about 1.16% of area median household income). With the first rate increase of 10% in January 2024, the bill for 1,000 cubic feet of water would be \$67.89, or 1.28% of median household income, as shown in **Table 2** below, keeping the water bill within what is considered the threshold range of affordability in the industry.

Table 2
Impact of Rates on Household Affordability

Item	Annual	Monthly
Oregon Median Household Income (MHI) [1]	\$70,084	\$5,840
Ashland MHI [1]	\$63,641	\$5,303
CURRENT Water Bill 3/4" using 1,000 cu. ft.	\$741	\$61.71
Water Bill as % of Ashland MHI		1.16%
January 2024 Water Bill 3/4" using 1,000 cu. Ft.	\$815	\$67.89
Water Bill as % of Ashland MHI		1.28%
Water Rates @ 2.0% of MHI [2]	\$1,273	\$106.07

Source: US Census.

[1] 2021 5-year American Community Survey estimate.

[2] Per EPA guidelines a typical water bill greater than 2% is high and a typical water bill greater than 2.5% is burdensome.

To receive preferable financing terms and/or grant funding from the State of Oregon, the water bill needs to be at least \$66.29 when using 1,000 cubic feet of water in a month in Ashland (this is 1.25% of median household income). With the increase in rates, the City will qualify for preferential loan terms. The State uses the last decennial US Census data and adjusts each year to determine the current median household income. The estimate of median household income used in this analysis is the 2021 5-year ACS figure for Ashland. **Table 2** also shows that monthly water bills would need to be greater than \$106.07 per month for the EPA to consider the bill unaffordable.

Table 3 compares a typical water bill for a ¾" meter using 1,000 cubic feet to other cities and communities in Oregon. Ashland's water bill is at the higher end of the range, reflecting the large capital investments in the treatment plant that will ensure a sustainable and secure water supply into the future. In addition, the City is working with TAP partners to bolster its secondary source of water for emergencies and drought-year water supplies, and investing in infrastructure that will allow the sale of Ashland's water to TAP partners during the winter when Ashland has an excess of water supplies. These actions show forward planning at a time when many communities are not investing in their water infrastructure; in the long run the benefits of these actions will be reaped by ratepayers.

Table 3
Comparison Water Bills for a Typical Residence in Oregon

Water Purveyor	Base Charge as % of Bill	Base Charges	Use Charges	Monthly Bill
			<i>for 10 HCF</i>	<i>3/4" Meter</i>
Klamath Falls	13%	\$3.56	\$23.80	\$27.36
Central Point	57%	\$17.37	\$13.06	\$30.43
Medford	68%	\$21.92	\$10.21	\$32.13
Corvallis	41%	\$18.47	\$26.46	\$44.93
Phoenix	88%	\$40.61	\$5.36	\$45.97
Eagle Point	39%	\$18.11	\$28.00	\$46.11
Bend	55%	\$25.99	\$21.60	\$47.59
Talent	46%	\$22.11	\$25.75	\$47.86
Springfield	48%	\$23.10	\$25.26	\$48.36
Grants Pass	77%	\$37.62	\$11.25	\$48.87
Tualatin	22%	\$11.00	\$39.00	\$50.00
Roseburg	58%	\$30.31	\$21.60	\$51.91
Ashland (current)	47%	\$28.95	\$32.76	\$61.71
Albany	35%	\$23.01	\$43.10	\$66.11
Ashland (Jan. 2024)	47%	\$31.84	\$36.05	\$67.89
Tualatin Valley WD	14%	\$11.71	\$70.30	\$82.01

Source: Rate schedule for each water purveyor, July 2023.

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ATTACHMENT A

WATER UTILITY FUND 2023 FINANCIAL ANALYSIS SUPPORT TABLES

Table A-1
City of Ashland Water Rate Study
Historical Potable Water Production

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Month Year	Calendar Year											Avg. Annual Water Delivery (MG)	Percent of Delivery by Month	
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023			
<i>Figures in Millions of Gallons</i>											2013-2023			
January	43.0	42.4	53.7	48.6	52.9	49.3	51.3	50.6	48.6	49.6	69.8	50.9	5%	
February	37.0	37.4	48.1	45.2	45.5	45.2	44.3	46.7	43.7	45.7	62.6	45.6	5%	
March	42.4	41.7	54.4	48.0	52.4	48.8	50.3	52.1	51.6	51.6	69.8	51.2	5%	
April	54.8	56.4	64.2	64.2	51.7	59.5	56.1	75.0	82.0	55.5	72.6	62.9	6%	
May	90.5	97.7	94.3	89.4	88.7	93.3	96.7	103.1	123.4	76.3	114.3	97.1	10%	
June	117.3	119.3	126.5	123.2	121.5	118.5	131.2	106.0	137.1	110.9	127.8	121.7	12%	
July	170.5	137.2	130.7	136.1	157.1	158.1	150.9	147.4	111.3	143.5		144.3	14%	
August	155.3	131.4	125.3	151.5	161.9	157.8	145.9	160.5	97.0	99.1		138.6	14%	
September	114.3	104.1	104.6	120.2	123.0	131.6	98.0	136.1	68.3	101.5		110.2	11%	
October	99.2	83.6	90.9	70.8	94.9	85.8	71.8	48.6	55.5	77.6		77.9	8%	
November	81.6	55.4	46.9	53.5	55.6	60.8	59.3	46.6	50.0	71.2		58.1	6%	
December	53.0	51.0	49.3	49.4	49.6	49.2	51.3	50.6	49.9	69.9		52.3	5%	
Total	1,058.8	957.5	988.9	1,000.0	1,054.9	1,057.8	1,007.1	1,023.3	918.4	952.3	A	1,010.7	100%	
Base Monthly Flow (Dec - Mar)												B	50.0	
Average Annual Base Flow												C = B*12	599.9	59%
Average Annual Additional Flow												D = A-C	410.7	41%

Source: City of Ashland.

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Table A-2
City of Ashland Water Rate Study
Historical Water Fund Operation Expenditures (excludes SDC funds)

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Expenses	Fiscal Year Ending						6-Year Change	Avg. Annual % Change	
	2016	2017	2018	2019	2020	2021			2022
Water Fund Operating Expenses	Audited figures								
Personnel	\$1,704,110	\$1,712,355	\$1,815,873	\$1,863,488	\$1,883,177	\$1,737,258	\$1,970,368	\$266,258	2.4%
Supplies	\$206,742	\$202,999	\$194,574	\$214,583	\$184,685	\$269,174	\$227,349	\$20,607	1.6%
Rental, Repair, Maintenance	\$221,868	\$312,859	\$282,656	\$336,585	\$254,069	\$376,643	\$344,521	\$122,653	7.6%
Communications	\$14,985	\$14,413	\$27,359	\$16,691	\$14,947	\$15,104	\$19,421	\$4,436	4.4%
Contractual Services	\$340,374	\$214,959	\$183,657	\$197,351	\$193,747	\$303,948	\$194,171	(\$146,203)	-8.9%
Internal Charges & Fees	\$1,520,175	\$1,554,723	\$1,596,181	\$1,776,378	\$2,144,666	\$2,152,004	\$1,984,837	\$464,662	4.5%
Other Purchased Services	\$169,127	\$178,117	\$171,131	\$189,537	\$173,075	\$157,538	\$306,303	\$137,176	10.4%
Franchise Tax	\$418,922	\$446,737	\$639,429	\$675,602	\$689,205	\$721,304	\$682,933	\$264,011	8.5%
Conservation Programs	\$47,727	\$69,177	\$40,558	\$35,044	\$27,658	\$35,007	\$38,810	(\$8,918)	-3.4%
Subtotal Operating Expenses	\$4,644,030	\$4,706,339	\$4,951,418	\$5,305,259	\$5,565,229	\$5,767,980	\$5,768,712	\$1,124,682	3.7%

Source: City of Ashland.

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Table A-3
City of Ashland Water Rate Study
Historical and Budgeted Water Fund Revenues

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REVENUES	Fiscal Year Ending								
	2016 actual	2017 actual	2018 actual	2019 actual	2020 actual	2021 actual	2022 actual	2023 preliminary	2024 budget
Charges for Service									
Water Sales									
Commercial	\$980,376	\$933,234	\$986,155	\$1,004,092	\$975,456	\$966,838	\$987,976	\$1,030,431	\$1,080,000
Fire Guard	\$35,322	\$23,350	\$24,363	\$26,222	\$27,428	\$27,794	\$30,610	\$29,864	\$27,000
Government & Municipal	\$314,223	\$242,263	\$262,089	\$293,630	\$275,260	\$291,775	\$318,970	\$268,181	\$306,700
Multi-Family Residential	\$786,549	\$748,064	\$797,892	\$610,755	\$602,103	\$683,481	\$661,172	\$646,221	\$779,700
Single Family Residential	\$3,968,571	\$4,373,406	\$4,759,645	\$5,190,266	\$5,365,728	\$5,709,393	\$5,417,680	\$5,472,587	\$5,400,000
Irrigation (incl. TID customers)	\$740,136	\$910,045	\$888,155	\$1,010,849	\$1,010,858	\$1,164,905	\$983,244	\$1,137,898	\$1,000,000
Subtotal Water Sales	\$6,825,178	\$7,230,361	\$7,718,298	\$8,135,814	\$8,256,833	\$8,844,186	\$8,399,652	\$8,585,182	\$8,593,400
Reimbursement SDC	\$277,247	\$310,390	\$294,968	\$346,254	\$226,981	\$354,943	\$204,411	\$152,778	\$0
Improvement SDC	\$0	\$0	\$0	\$0	\$0	\$85,885	\$0	\$0	\$100,000
New Service Installation	\$73,122	\$61,724	\$53,673	\$23,395	\$59,620	\$69,886	\$64,673	\$41,307	\$40,000
Miscellaneous	\$27,287	\$37,150	\$42,922	\$30,690	\$38,961	\$7,430	\$2,900	\$4,370	\$0
Subtotal Charges for Service	\$377,656	\$409,263	\$391,562	\$400,339	\$325,562	\$518,144	\$271,984	\$198,455	\$140,000
Other Revenues									
Interest on Pooled Investments	\$32,632	\$69,182	\$139,859	\$228,124	\$216,316	\$80,500	\$65,754	\$304,255	\$146,450
Miscellaneous Income	\$39,351	\$47,197	\$40,443	\$26,996	\$41,749	\$14,294	\$4,104	\$1,289	\$25,000
Grants	\$14,897	\$0	\$0	\$0	\$6,331	\$16,766	\$0	\$26,250	\$0
Bond Proceeds	\$542,457	\$347,625	\$732,215	\$2,795,804	\$1,103,851	\$0	\$0	\$1,366,794	\$14,252,562
Subtotal Other Revenues	\$629,337	\$464,003	\$912,517	\$3,050,924	\$1,368,247	\$111,560	\$69,858	\$1,698,588	\$14,424,012
Total Revenues	\$7,832,171	\$8,103,628	\$9,022,377	\$11,587,077	\$9,950,642	\$9,473,890	\$8,741,494	\$10,482,225	\$23,157,412
Total Revenues w/o Bond Proceeds & Grants	\$7,274,818	\$7,756,003	\$8,290,162	\$8,791,273	\$8,840,460	\$9,457,124	\$8,741,494	\$9,089,181	\$8,904,850

Source: City of Ashland.

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Table A-4
City of Ashland Water Rate Study
Water Capital Improvement Plan - Inflated Dollars

DRAFT

All estimates inflated with the exception of the treatment plant costs (inflation already built in)

Water Improvements	Funding Source	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
		BN 23-25	BN 25-27	BN 25-27	BN 27-29	BN 27-29	
Water Supply	<i>inflation assumption--></i>		3.5%	3.5%	3.5%	3.5%	3.5%
Dam Safety Improvements	New Bonds	\$3,313,000	\$3,429,000	\$0	\$0	\$0	\$0
East & West Fork Transmission Line Rehabilitation	Cash	\$2,300,000	\$0	\$0	\$0	\$0	\$0
7.0 MGD Water Treatment Plant	Debt Package	\$4,000,000	\$40,000,000	\$26,424,000	\$0	\$0	\$0
Reeder Reservoir Sediment Removal	Cash	\$0	\$0	\$172,000	\$0	\$0	\$191,000
Subtotal Water Supply		\$9,613,000	\$43,429,000	\$26,596,000	\$0	\$0	\$191,000
Pump Stations							
TAP BPS Backup Power	ARPA Grant	\$417,000	\$0	\$0	\$0	\$0	\$0
Hillview BPS Replacement	Cash	\$0	\$0	\$402,000	\$1,248,000	\$0	\$0
Subtotal Pump Stations		\$417,000	\$0	\$402,000	\$1,248,000	\$0	\$0
Water Distribution							
Annual Pipe Replacement	Cash	\$300,000	\$311,000	\$322,000	\$333,000	\$345,000	\$357,000
Distribution Pipe Projects	Cash	\$660,000	\$603,000	\$1,519,000	\$345,000	\$1,591,000	\$666,000
Subtotal Water Distribution		\$960,000	\$914,000	\$1,841,000	\$678,000	\$1,936,000	\$1,023,000
Operations and Maintenance							
Telemetry Upgrades	Cash	\$80,000	\$0	\$0	\$0	\$0	\$0
Tolman Creek Road PRV Station	Cash	\$0	\$0	\$0	\$84,000	\$0	\$0
FERC Part 12 Inspection	Cash	\$600,000	\$0	\$0	\$0	\$0	\$0
Subtotal Operations and Maintenance		\$680,000	\$0	\$0	\$84,000	\$0	\$0
Water System Studies							
Rezoning Study	Cash	\$0	\$0	\$0	\$0	\$0	\$60,000
Water Conservation and Management Plan Update	Cash	\$75,000	\$0	\$0	\$0	\$0	\$0
Water Master Plan Updates	Cash	\$0	\$0	\$108,000	\$0	\$0	\$0
Subtotal Water System Studies		\$75,000	\$0	\$108,000	\$0	\$0	\$60,000
TAP Improvements and Studies							
Non-Peak/Emergency Supply Connection to Talent	ARPA Grant	\$236,000	\$0	\$0	\$0	\$0	\$0
N. Phoenix Road Pipe Improvements	Cash [1]	\$0	\$0	\$0	\$0	\$1,063,000	\$1,100,000
N Phoenix Road Master Meter Connection	Cash [1]	\$0	\$0	\$0	\$0	\$129,000	\$0
Regional BPS Short-Term Expansion	TAP	\$211,000	\$0	\$0	\$0	\$0	\$0
Regional BPS Programming Updates	ARPA Grant	\$0	\$105,000	\$0	\$0	\$0	\$0
Talent BPS Generator Upgrade (Option 1)	ARPA Grant	\$0	\$461,000	\$0	\$0	\$0	\$0
Talent BPS Expansion for Talent & Ashland (Option 1)	TAP	\$0	\$143,000	\$0	\$0	\$0	\$0
Talent BPS Seismic upgrades	ARPA Grant	\$0	\$104,000	\$0	\$0	\$0	\$0
24-inch Pipe Seismic upgrades (Hwy 99 Phoenix)	ARPA Grant	\$0	\$1,680,000	\$0	\$0	\$0	\$0
Talent to Ashland Pipe Improvements (Option 1)	Cash [1]	\$0	\$0	\$0	\$0	\$0	\$799,000
Talent BPS Additional Hydraulic Analysis	Cash [1]	\$0	\$0	\$7,000	\$0	\$0	\$0
Subtotal TAP Improvements and Studies		\$447,000	\$2,493,000	\$7,000	\$0	\$1,192,000	\$1,899,000
TOTAL WATER CAPITAL PROJECTS		\$96,293,000	\$12,192,000	\$46,836,000	\$28,954,000	\$2,010,000	\$3,173,000
<i>Treatment Plant Debt Package</i>		<i>\$70,424,000</i>	<i>\$4,000,000</i>	<i>\$40,000,000</i>	<i>\$26,424,000</i>	<i>\$0</i>	<i>\$0</i>
<i>City GO Bonds</i>		<i>\$6,742,000</i>	<i>\$3,313,000</i>	<i>\$3,429,000</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>
<i>ARPA Grant</i>		<i>\$3,003,000</i>	<i>\$653,000</i>	<i>\$2,350,000</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>
<i>TAP Partner Reimbursements [2]</i>		<i>\$207,550</i>	<i>\$123,709</i>	<i>\$83,841</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>
<i>Reserves / Cash</i>		<i>\$15,916,450</i>	<i>\$4,102,291</i>	<i>\$973,159</i>	<i>\$2,530,000</i>	<i>\$2,010,000</i>	<i>\$3,173,000</i>

Source: City of Ashland May 2023.

cip infl

[1] Potential cost-share with TAP Partners, unknown at this time.

[2] Ashland is responsible for 41.37% of the total cost; as the project lead, Ashland will pay the contractors to complete the work with reimbursement from Talent and Phoenix.

Table A-5
City of Ashland Water Rate Study
Existing and Projected Debt

DRAFT

Existing Debt	FY 2024 Budgeted	FY 2025 2	FY 2026 3	FY 2027 4	FY 2028 5	FY 2029 6
City GO Bonds (FF&C)	\$194,125	\$195,463	\$196,469	\$197,131	\$197,438	\$0
MWC Debt for SDC Purchase	\$163,756	\$163,756	\$163,756	\$163,756	\$163,756	\$163,756
IFA DEQ Loan S14005	\$136,207	\$136,207	\$136,207	\$136,207	\$136,207	\$136,207
IFA DEQ Loan S16021	\$394,098	\$394,098	\$394,098	\$394,098	\$394,098	\$394,098
WIFIA Treatment Plant Debt [1]	\$0	\$702,000	\$1,638,000	\$2,574,000	\$3,276,000	\$3,705,287
Total Existing Debt Service	\$888,186	\$1,591,524	\$2,528,530	\$3,465,192	\$4,167,499	\$4,399,348

Source: City of Ashland May 2023, and HEC.

debt

[1] WIFIA \$70 million loan.

Table A-6
City of Ashland Water Rate Study
Estimated New Debt for Other CIP Improvements

DRAFT

Item	<i>Assumptions</i>	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Dam Safety Improvements		\$3,313,000	\$3,429,000	\$0	\$0	\$0	\$0
Total Debt Funded Improvements		\$3,313,000	\$3,429,000	\$0	\$0	\$0	\$0
Bond Sizing							
Capitalized Interest	<i>12 months</i>	\$182,220	\$188,600	\$0	\$0	\$0	\$0
Issuance Costs	<i>3%</i>	\$99,390	\$102,870	\$0	\$0	\$0	\$0
Underwriter's Discount	<i>1%</i>	\$33,130	\$34,290	\$0	\$0	\$0	\$0
Bond Reserve Fund	<i>1 year debt service</i>	\$332,800	\$344,400	\$0	\$0	\$0	\$0
Estimated Bond Size		\$3,960,540	\$4,099,160	\$0	\$0	\$0	\$0
Bond Size Adjusted for Rounding	<i>1.20 bond load</i>	\$3,976,000	\$4,115,000	\$0	\$0	\$0	\$0
Estimated Annual Debt Service [1]		\$332,800	\$344,400	\$0	\$0	\$0	\$0
Estimated Debt Service Payment			\$332,800	\$677,200	\$677,200	\$677,200	\$677,200

Source: HEC estimates based on planned CIP.

new debt

[1] Debt service estimate based on sale of revenue bonds with the following terms:
interest rate: 5.5%
years: 20

Table A-7
City of Ashland Water Rate Study
Projected Water Fund Revenue Requirement

DRAFT

Revenues and Expenses		FY 2024 Current (1)	FY 2025 2	FY 2026 3	FY 2027 4	FY 2028 5	FY 2029 6
Operating Expenses		Budgeted [1]			Projected		
Personnel	3.5%	\$2,709,283	\$2,767,361	\$2,864,219	\$2,964,467	\$3,068,223	\$3,175,611
Supplies	2.0%	\$360,525	\$358,900	\$366,078	\$373,400	\$380,868	\$388,485
Repair & Maintenance	8.0%	\$579,500	\$564,330	\$609,476	\$658,235	\$710,893	\$767,765
Communications	2.0%	\$22,200	\$21,650	\$22,083	\$22,525	\$22,975	\$23,435
Contractual Services	3.0%	\$419,500	\$418,000	\$430,540	\$443,456	\$456,760	\$470,463
Internal Charges & Fees	5.0%	\$2,101,797	\$2,069,072	\$2,172,526	\$2,281,152	\$2,395,210	\$2,514,970
Other Purchased Services	4.0%	\$78,750	\$60,300	\$62,712	\$65,220	\$67,829	\$70,542
Franchise Tax	4.0%	\$705,000	\$720,000	\$748,800	\$778,752	\$809,902	\$842,298
Conservation Programs	2.0%	\$94,950	\$0	\$35,000	\$35,700	\$36,414	\$37,142
TAP Water [2]	3.5%	\$250,000	\$258,750	\$267,806	\$277,179	\$286,881	\$296,922
Subtotal Operating Expenses		\$7,321,506	\$7,238,364	\$7,579,240	\$7,900,086	\$8,235,955	\$8,587,633
Debt Service & Loan Repayments							
City GO Bonds (FF&C)	Table A-5	\$194,125	\$195,463	\$196,469	\$197,131	\$197,438	\$0
MWC Debt for SDC Purchase	Table A-5	\$163,756	\$163,756	\$163,756	\$163,756	\$163,756	\$163,756
IFA DEQ Loan S14005	Table A-5	\$136,207	\$136,207	\$136,207	\$136,207	\$136,207	\$136,207
IFA DEQ Loan S16021	Table A-5	\$394,098	\$394,098	\$394,098	\$394,098	\$394,098	\$394,098
WIFIA Treatment Plant Debt	Table A-5	\$0	\$702,000	\$1,638,000	\$2,574,000	\$3,276,000	\$3,705,287
New City Debt	Table A-6	\$0	\$332,800	\$677,200	\$677,200	\$677,200	\$677,200
Subtotal Debt Service & Loan Repayments		\$888,186	\$1,924,324	\$3,205,730	\$4,142,392	\$4,844,699	\$5,076,548
Capital Improvements Cash Funded	Table A-4	\$4,102,291	\$973,159	\$2,530,000	\$2,010,000	\$3,128,000	\$3,173,000
Subtotal Annual Cost		\$12,311,982	\$10,135,847	\$13,314,970	\$14,052,478	\$16,208,654	\$16,837,180
Credits							
New Service Installation	2.0%	\$40,000	\$40,800	\$41,616	\$42,448	\$43,297	\$44,163
Interest on Investments	constant	\$146,450	\$140,000	\$140,000	\$140,000	\$140,000	\$140,000
Miscellaneous	2.0%	\$25,000	\$25,500	\$26,010	\$26,530	\$27,061	\$27,602
Non-Potable Water (TID) Charges	Table A-8	\$79,669	\$92,185	\$101,322	\$111,129	\$122,485	\$134,652
Subtotal Credits		\$291,119	\$298,485	\$308,948	\$320,107	\$332,843	\$346,417
REVENUE REQUIREMENT		\$12,020,863	\$9,837,362	\$13,006,023	\$13,732,370	\$15,875,810	\$16,490,763
Current Water Sales (excludes TID)		\$8,513,731	\$8,513,731	\$8,513,731	\$8,513,731	\$8,513,731	\$8,513,731

Source: HEC.

rev req

[1] Budgeted operating expenses and debt service. New City debt service is not budgeted in 2023-25 biennium budget.

[2] Accounted for in the 2024 budget under Water Supply - Other Purchased Services. Separated here for MWC rate increases.

MWC rate increases are planned at 3.5% per year.

Table A-8
City of Ashland Water Rate Study
Projection of TID Non-Potable Water Revenue Offset

DRAFT

Costs	Assumption	FY 2024 Budgeted [1]	FY 2025 2	FY 2026 3	FY 2027 4	FY 2028 5	FY 2029 6
TID Annual Cost Paid by Metered Customers							
Base Meter Charge [1]							
SOU (6" meter)	\$8,892	\$9,781	\$10,759	\$11,835	\$13,019	\$14,321	\$15,753
Lithia Park (4" meter)	\$4,519	\$4,971	\$5,468	\$6,015	\$6,617	\$7,278	\$8,006
Metered Water Use [2]							
SOU (6" meter)	\$17,754	\$19,885	\$22,015	\$24,146	\$26,276	\$29,117	\$31,958
Lithia Park (4" meter)	\$2,551	\$2,857	\$3,164	\$3,470	\$3,776	\$4,184	\$4,592
Total SOU	\$26,646	\$29,666	\$32,775	\$35,981	\$39,295	\$43,438	\$47,710
Total Lithia Park (City)	\$7,070	\$7,828	\$8,632	\$9,485	\$10,392	\$11,462	\$12,598
Total TID Metered Customers	\$33,717	\$37,494	\$41,406	\$45,466	\$49,688	\$54,900	\$60,309
All Other TID Users Costs							
Annual Flat Fees [3]	\$41,965	\$46,162	\$50,778	\$55,856	\$61,441	\$67,585	\$74,343
Total TID Unmetered Customers	\$41,965	\$46,162	\$50,778	\$55,856	\$61,441	\$67,585	\$74,343
Total Estimated TID Customer Payments							
Meter Fees	\$13,411	\$14,752	\$16,228	\$17,850	\$19,635	\$21,599	\$23,759
Use Fees	\$62,271	\$68,904	\$75,957	\$83,471	\$91,493	\$100,886	\$110,893
Total Fees	\$75,682	\$83,657	\$92,185	\$101,322	\$111,129	\$122,485	\$134,652
Source: City of Ashland and HEC. <i>tid offset</i>							
[1] Customer charges and meter replacement fees for one 6" meter (SOU) and one 4" meter (Lithia Park).							
[2] [3] Calculated Rate per Metered Connecti	\$0.0025	\$0.0028	\$0.0031	\$0.0034	\$0.0037	\$0.0041	\$0.0045
Calculated Rate per Acre	\$241.18	\$265.30	\$291.83	\$321.01	\$353.11	\$388.42	\$427.26

Table A-9
City of Ashland Water Rate Study
Projected Water Fund Cashflow

DRAFT

Revenues and Expenses	Fiscal Year Ending					
	FY 2024 Budgeted [1]	FY 2025 2	FY 2026 3	FY 2027 4	FY 2028 5	FY 2029 6
<i>Rates Increase</i>	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Revenue						
Municipal Water Sales	\$8,939,417	\$10,301,614	\$11,331,776	\$12,464,953	\$13,711,448	\$15,082,593
TID Water Sales	\$79,669	\$92,185	\$101,322	\$111,129	\$122,485	\$134,652
Other Revenue Sources	\$211,450	\$206,300	\$207,626	\$208,979	\$210,358	\$211,765
Total Revenue [2]	\$9,230,537	\$10,600,099	\$11,640,723	\$12,785,060	\$14,044,292	\$15,429,010
Operating Expenses	\$7,321,506	\$7,238,364	\$7,579,240	\$7,900,086	\$8,235,955	\$8,587,633
Net Revenue before Debt Service	\$1,909,031	\$3,361,735	\$4,061,483	\$4,884,975	\$5,808,337	\$6,841,378
Debt Service	\$888,186	\$1,924,324	\$3,205,730	\$4,142,392	\$4,844,699	\$5,076,548
<i>Debt Service Coverage [3]</i>	2.15	1.75	1.27	1.18	1.20	1.35
Net Revenue	\$1,020,845	\$1,437,411	\$855,753	\$742,583	\$963,638	\$1,764,830
Beginning Balance	\$15,533,793	\$12,552,347	\$13,116,600	\$11,542,352	\$10,374,935	\$8,310,573
Net Revenue (Deficit)	\$1,020,845	\$1,437,411	\$855,753	\$742,583	\$963,638	\$1,764,830
Cash-Funded Capital Improvements	(\$4,102,291)	(\$973,159)	(\$2,530,000)	(\$2,010,000)	(\$3,128,000)	(\$3,173,000)
Bond/Loan Proceeds	<i>Excludes Bond/Loan Proceeds & Projects Funded with Proceeds [4]</i>					
Add SDC Revenue	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Ending Balance [5]	\$12,552,347	\$13,116,600	\$11,542,352	\$10,374,935	\$8,310,573	\$7,002,403
Target Minimum Balance [6]	\$2,540,168	\$2,814,081	\$3,022,206	\$3,251,073	\$3,502,919	\$3,779,863

Source: City of Ashland and HEC.

flow

[1] Increase in rates for FY 2024 is for 6 months (Jan-Jun).

[2] Excludes system development charges and LID assessments.

[3] Minimum 1.15 "coverage revenues" required for the WIFIA loan.

[4] Timing of receipt of loan/debt proceeds is unknown.

[5] The City may establish a Rate Stabilization Fund into which cash greater than all lawful expenses have been paid, and the City has achieved at least the minimum cash balance for the Water Fund.

[6] The target balance is 20% of revenues plus one year debt service (excluding City GO debt and the WIFIA loan, which are not secured by bond reserves).