

Options for Creekside Golf Course

Overview. This attachment provides additional details and supplemental analysis related to the discussions, options, and recommendations provided in the policy paper for Creekside Golf Course.

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NOTE: The numbers and values presented throughout this attachment are intended to illustrate potential changes in rates but they *do not* reflect the results of detailed analyses based on current customer classes or characteristics.

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SUMMARY OF PAST OPTIONS CONSIDERED FOR CREEKSIDE

Between 2011 and 2023, a number of options were considered during discussions between the City and Creekside to address their issues with their water bill. These are summarized below:

Stormwater Bypass (2011-2013): Creekside proposed installing a bypass valve and pipeline to divert stormwater from a City-owned storm pipe. This arrangement would send the flow into their lakes for future irrigation use. Both the City and Creekside had concerns and the option was not implemented.

Customer Reclassification (2014-2015): Creekside proposed reclassifying their usage as Commercial or Industrial. The City denied the request, noting that Creekside's demand patterns were consistent with the classification of Irrigator.

Flood Control Credit (2015-2017): The City considered providing Creekside with a discount based on the flood control benefits provided by their property. Subsequent analysis by WEST Consultants indicated little benefit was provided by their flood storage and the option was dropped.

Easement Purchase (2017-2018): The City proposed purchasing 100-foot easements adjacent to Battle Creek, Jory Creek, and Powell Creek to provide encumbered areas for future floodplain and riparian protection. Creekside offered \$60,000/acre and the total involved approximately 30 acres.¹ The option got as far as a draft agreement being prepared before it was put on hold by City.

Lease Payments for Flood Control (2022-2023): Creekside proposed the City provide a credit for the flood control benefits their course provided, with the credit somehow linked to the City's cost savings based on Salem's standing in the Community Rating System.² No action taken by City to date.

CUSTOMER CLASSIFICATIONS AND RATES

Salem's water COSA methodology employs the common rate setting practice of assigning a portion of water system costs to customer classes based on their share of the water consumed during peak usage periods.³ Irrigation customers use proportionately more water during system peak production periods (generally, July through September). As a result, irrigation rates are higher per unit of water consumed (measured in hundred cubic feet, or ccf) than customer classes who use water more evenly throughout the year. This higher rate allows the utility to recover system extra-capacity costs in proportion to the seasonal demands of each customer class. Current Inside-Salem water and wastewater volumetric rates per one hundred cubic feet of water (ccf) are shown in Table 1.

¹ This value is approximate and varies depending on a number of assumptions

² The Community Rating System, CRS, is a federal program that provides for reductions in flood insurance premiums citywide. The City currently ranks among the top 1% of over 1,700 participating communities and our residents receive a 35% reduction in flood insurance premiums. [Note: This is a broad summary of the program.]

³ Utilities incur significant costs to build and maintain water system capacity for peak water demands. The "Base-Extra Capacity" rate-setting methodology is endorsed by the American Water Works Association and provides a framework for allocating peak (extra capacity) costs to customers in proportion to their peak use.

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**Table 1. Water and Wastewater Volume Rates (\$/ccf)
by Customer Class (effective Jan. 1, 2024)**

Customer Class	Water	Wastewater
Irrigation	\$4.23	N/A
Single Family Residential	\$3.02	\$4.09
Public	\$2.87	\$5.78
Commercial	\$2.62	\$5.78
Multifamily	\$2.49	\$4.09
Industrial	\$1.81	Varies
Wholesale	\$1.32 - \$3.91	\$4.09 - \$4.14

Industrial and Multifamily accounts, who use water most evenly throughout the year, have the lowest “peaking factor”,⁴ and therefore have the lowest rates per hundred cubic feet (ccf).⁵ Few Single-Family Residential customers have separate irrigation meters. Therefore, the water use for the Residential class is highly seasonal (owing to summer irrigation and other uses). This results in the higher volume rates shown above in Table 1. Commercial and Public customer classes have the largest number of stand-alone irrigation meters of all the customer classes, which moderates the peaking factors (and rates) of these primary customer classes.

Customer class definitions presume that stand-alone Irrigation customers are using water for landscaping and that the water does not reach the wastewater collection system; therefore, these accounts do not require a sewer service. The Commercial customer class represents all uses that are not residential, public, institutional, or industrial and include both water and wastewater services. Accounts classified as Commercial may use water for a variety of indoor and outdoor purposes. Because many customers do not install separate irrigation meters, Salem bills for wastewater service based on winter water use, to avoid charging non-irrigation accounts for outdoor water use that does not return to the wastewater system.

Salem does not require irrigation accounts to be separate from domestic services. The builder or developer may elect to have one combined service or two separate services/accounts. Most developments and new construction currently elect to install one meter. If the domestic service cannot reach a location needed for irrigation, or the meter and service line are not sized to support an expanded use, such as green infrastructure requiring irrigation, then a separate service may be required.

⁴ The peaking factor measures the relationship between the customer class water use during the system peak month to the customer class average month use for the entire year.

⁵ The Industrial customer rate also reflects exclusion of certain reservoir, pumping, and distribution costs, based on the location of these customers.

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OVERVIEW OF COST OF SERVICE ANALYSIS AND IRRIGATION CLASS

Under Salem’s cost-of-service rate structure, treated water used for irrigation that is individually metered is priced at a significantly higher rate per unit of consumption than Commercial, Residential, or other customer classifications. In 2016, the Water/Wastewater Task Force considered a change in Irrigation rates; however, no action was taken. In 2018, the Cost of Service Analysis (COSA) was updated and changes in consumption data and peak demand by customer class resulted in a decrease in irrigation rates from \$4.24 per ccf in 2016 to \$3.44 per ccf in 2020. Subsequent technical updates and inflationary factors have resulted in rate increases for Irrigation customers over the past four years, from \$3.65 per ccf in 2022 to \$4.23 per ccf in 2024.

TOP TEN IRRIGATION CUSTOMERS IN SALEM

Table 2 on the following page identifies the top ten Irrigation customers based on usage for the June 2023 through May 2024 period. Consumption for customers with multiple accounts is aggregated based on customer name. Usage is shown in both ccf and MG. The top ten customers represent about 40 percent of total consumption for the Irrigation classification of 531,790 ccf.

Table 2. Top 10 Irrigation Customers (June 2023 through May 2024)

Customer Name	No. of Accounts	Annual Usage (ccf)	Annual Usage (MG)	Percent of Total Irrigation Customers
Salem-Keizer School District	26	62,289	46.6	12%
Creekside Golf Operations, LLC	1	55,681	41.7	10%
Willamette University	15	27,499	20.6	5%
Belcrest Memorial Assn	1	21,650	16.2	4%
Capital Manor, Inc	2	12,079	9.0	2%
LDS Church	6	8,166	6.1	2%
Oregon State Fair	3	7,520	5.6	1%
Multifamily	2	6,547	4.9	1%
Industrial	3	6,391	4.8	1%
Wholesale	1	6,362	4.8	1%

IRRIGATION RATES IN OTHER JURISDICTIONS

Table 3 lists the irrigation rates charged by 14 Oregon communities as of April 29, 2024. Many of these communities are routinely compared Salem during the revenue slope review process. Additional communities not commonly used for comparison are also included to provide a broader range of rates. Salem’s rates are in the bottom half of those identified. Pricing structures are based on many factors and policy considerations, which make direct comparisons challenging.

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Table 3. Irrigation Rates in Comparable Oregon Communities

City	Effective Date	Inclining Block	Elevation Charge	Rate/CCF
Hillsboro	1/1/2024	No	Yes	\$9.58
Tigard	1/1/2021	No	No	\$8.81
Newberg	1/1/2024	No	No	\$8.27
Sherwood	7/1/2023	No	No	\$7.94
Wilsonville	5/1/2023	No	No	\$7.17
Lake Oswego	7/1/2023	No	No	\$6.49
Gresham	1/1/2024	Yes	No	\$5.53
Ashland	7/1/2019	No	No	\$5.10
Corvallis	1/1/2024	Yes	Yes	\$4.51
Salem	1/1/2024	No	No	\$4.23
Happy Valley	1/1/2024	No	No	\$4.05
Canby	5/1/2024	No	No	3.16
Woodburn	7/1/2023	No	No	\$2.36
Grants Pass	1/1/2023	No	No	\$2.27

WATER USE AT SALEM AREA GOLF COURSES

The Salem area has five golf courses, all of which require water to irrigate and operate their businesses. Illahe and Salem Golf have water rights on the Willamette River and use river water to irrigate. Meadowlawn has water rights through Santiam Water Control District and uses creek water to irrigate. Salemtowne is served by a well for irrigation. Creekside Golf is the only Salem-area golf course that receives water from the City of Salem and which has an irrigation account.

Four golf courses in the Willamette Valley were contacted for this paper. Each one has either water rights on a creek or on the Willamette River, or has access to a well on their property. The contacted golf courses are shown in Table 4.

Table 4. Willamette Valley Golf Courses and Irrigation Water Sources

Golf Course Name	Location	Water Source
Willamette Valley Country Club	Canby	Willamette River
Frontier Golf Course	Canby	Well
Langdon Farms	Aurora	Wells
Oak Knoll in Independence	Independence	Rickreall Creek

CONSIDERATIONS ON CREDIT FOR STORMWATER DETENTION.

Administrative Rule 109-880-2 section 1.6.c(4) states, “Usage charges and administrative services charges may be reduced, adjusted, or waived at the discretion of the Director. The

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Director may take into account any other special circumstances when determining if an adjustment to the utility bill is warranted.”

A credit could be applied to the account in recognition of flood hazard mitigation. However, the existence of Creekside Golf Course LLC as an open space provides only a limited benefit to the City of Salem by mitigating potential flooding hazards from the Mill Creek system in Southeast Salem. Three creeks run through the property: Battle, Jory, and Powell creeks. If Creekside Golf Course ceases to exist and the property is developed for housing, the change in use would result in conversion of green open spaces to large areas of impervious surfaces, preventing infiltration of stormwater. Substantial drainage infrastructure would be required to convey the increased stormwater runoff to the Willamette River. Per City codes, infrastructure would be required to be constructed by the developer(s) to mitigate risks of flooding and excess flows that could damage the creeks.

FACTORS ON RECLASSIFYING CREEKSIDE GOLF OPERATIONS LLC FROM IRRIGATION TO COMMERCIAL (OPTION #1)

Classification of customers is an administrative function. Under the current definitions in Administrative Rule 109-800-2 in Section 1.4(a), Commercial Customers have the following characteristics:

- (1) Commercial customers include but are not limited to offices, restaurants, retail businesses, churches, and state licensed residential care facilities or day care facilities.
- (2) Customers do not use water for a manufacturing process.
- (3) Wastewater strength is domestic in nature.
- (4) Customers may be required to install grease traps, amalgam separators, silver recovery devices or other pretreatment processes to remove pollutants or prevent discharge to meet local limit requirements.
- (5) Customers are not required to obtain permits and are not monitored for wastewater flows or loads.

The definition presumes there is a wastewater flow, but that it is not monitored as it would be with an industrial customer. It also anticipates that some Commercial class customers, by nature of their business, must install equipment to prevent pollutants from entering the system. The definition does not anticipate a customer who does not produce wastewater and it does not allow for a situation where a customer might need water service without a sanitary sewer connection.

A limited audit of Salem’s water accounts indicates there are about 20 customers with Commercial water service without a corresponding sewer service on the account. Many of these are storage units, warehouses, or hangars without sewer service in the vicinity. Others are confirmed to be on septic service.

Reclassification of Creekside’s golf irrigation meter to a Commercial account, as requested by Creekside representatives, would require both a change to administrative practice and a modification to the current Commercial rate to maintain the Utility revenue slope and redistribute the extra-capacity costs associated with the golf course irrigation across the broader

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Commercial class. Under this scenario, it is estimated that the Commercial class rate would increase to \$2.69 per ccf (compared to \$2.62 currently), reflecting the higher peaking factor for the class when Creekside is added.

Estimated Impacts

- Reduction of cost by about \$85,000 annually to Creekside Golf (assuming existing consumption levels and based on the 2022 COSA framework); the decrease would be offset by an increase in the Commercial water rate of about 2.7 percent.

Considerations

- Would require administrative action to allow a Commercial water only account, which would be generally inconsistent with other Commercial customers who are required to have sewer service. However, given that Salem bills for sewer based only on the average quantity of water used in the winter months (to avoid charging irrigation water that is not reaching the sanitary sewer for treatment), even if the Commercial account for Creekside included sewer service, they would pay only the base fee (currently \$27.57 per month) without any additional charge for volume, given that their water use occurs exclusively in non-winter months.
- Equity concerns for: a) remaining Irrigation accounts such as cemeteries, school ballfields, multifamily common areas, etc. which maintain large, landscaped areas and would continue to be charged the higher rates for irrigation if they have a separate meter from other commercial uses, and b) for other Commercial accounts who would pay slightly higher rates as Creekside's extra-capacity costs are distributed across all customers in the class.

FACTORS ON ELIMINATING THE IRRIGATION CLASSIFICATION (OPTION #2)

The Irrigation rate class could be eliminated and accounts reclassified to the underlying classification providing service to that customer and address. There are currently about 740 active Irrigation accounts associated with addresses that also have residential, multifamily, commercial, or public accounts. If these accounts were reassigned to the underlying use, it would result in a revenue reduction of approximately \$850,000 annually if other rates are not adjusted. Underlying uses are approximately 68 percent Commercial, 17 percent Multifamily, 12 percent Public, and the remaining 3 percent are Residential, Industrial, and Institutional.

Estimated COSA Rate Impacts

- Reduction of about \$70,000 annually for Creekside Golf (assuming existing consumption levels and based on the 2022 COSA framework).
- Rates for other irrigation accounts would decrease 25-40 percent, depending on the underlying class to which they would be re-assigned.
- To offset the decreases in rates charged irrigation meters, the rates for non-irrigation meters/accounts for multifamily, commercial, and public would increase an estimated 2-15 percent (depending on the customer class), as the extra-capacity costs for the irrigation accounts would be redistributed to each underlying class proportionately.

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Considerations

- Represents a change to the current and prior cost-of-service methodologies that would need to be more fully evaluated in the next COSA update (2026). The estimated impacts noted above reflect the 2022 COSA framework and customer class usage characteristics.
- Reduces conservation incentives for irrigation use.
- Increases rates for non-irrigation accounts. Impacts on customers with multiple meters will vary depending on the proportion of dedicated irrigation vs. other use.
- Results in additional administrative costs to reclassify all irrigation accounts, including field verification of an estimated five percent of accounts.

FACTORS ON PROVIDING CREEKSIDE A TIME-OF-USE DISCOUNT (OPTION #3)

Under the 2022 COSA framework, extra-capacity costs estimated for each customer class include both peak day and peak hour costs. For the irrigation customer class, peak hour cost represents about 13 percent of total volume costs. If Creekside were to shift watering from morning to night (i.e., off-peak hour), their rate could be discounted by an estimated 13 percent from \$4.23 per ccf to \$3.68 per ccf, based on historic data.

Estimated COSA Rate Impacts

- Reduction of about \$30,000 annually for Creekside Golf (assuming existing consumption levels and based on the 2022 COSA framework).

Considerations

- Utility operations staff note that current watering practices put an observable strain on the system. If Creekside changes to night-time watering, the reduction in peak demand could delay the need for capital improvements required to meet future demand in the area.
- Represents a change to the current and prior cost-of-service methodologies that would need to be more fully evaluated in the next COSA update (2026). The estimated impacts noted above reflect the 2022 COSA framework and customer class usage characteristics.
- May result in some increase in other customer rates to maintain revenue neutrality.
- May result in additional administrative costs to verify compliance with watering schedule. Other customers may also seek rate relief via this practice, which would require review and monitoring.