


**CITY OF SAN ANTONIO  
INTERDEPARTMENTAL CORRESPONDENCE**

**TO:** Erik Walsh, City Manager

**FROM:** Ben Gorzell Jr., Chief Financial Officer 

**COPIES:** Mayor & City Council

**SUBJECT:** Report on the Proposed Adjustments to SAWS' Water and Wastewater Rate Structures, Recycled Water Rates, Chilled Water Rates, and Special Service Fees

**DATE:** November 4, 2022

**Summary & Recommendations:**

On November 1, 2022, the SAWS Board of Trustees approved the SAWS 2023 budget assuming passage of the following items proposed for City Council consideration on November 10, 2022:

- Approval of a new rate structure, designed to be revenue neutral, for all classes of SAWS water delivery, water supply, and wastewater rates as developed in conjunction with the Rates Advisory Committee (RAC).
- Approval of adjustments to Special Service Fees and Charges, such as, laboratory fees, customer deposits, industrial waste fees, and other fees with an automatic annual increase tied to inflation to keep up with increasing related costs.
- Approval of a rate adjustment and 5-year rate plan for Recycled Water Rates to include a 15% rate increase in 2023 and increases in the following years 2024 through 2027 of up to maximum amounts not to exceed 10% each year.
- Approval of a rate adjustment and 5-year rate plan for Chilled Water rates to the Downtown and Port San Antonio chilled water systems to include a 12% increase to the fixed capacity (demand) charge for 2023 and increases in the following years 2024 through 2027 of up to maximum amounts not to exceed 12%, 10%, 8% and 8% respectively.
- Additionally, the Chilled & Recycled proposed ordinances include accountability procedures as continuing efforts to evaluate progress on the plans.

**RATE STRUCTURE**

**Background:**

SAWS reviews its rate structure approximately every five years by completing a cost of service and rate design study. The existing residential water rate structure has been in place since January 1, 2016. In 2019, SAWS initiated a new cost of service and rate design study by an outside consultant, but the study was suspended in March 2020 due to the COVID-19 pandemic. In 2022, SAWS continued and completed the study. The study focused on determining the effectiveness of existing rate structures, updating cost of service allocations to customer classes, and identifying viable rate structure alternatives based upon input and rate study priorities. The rate design allows SAWS to recover the revenue requirement from each customer class to achieve specific policy objectives. The cost of service (COS) process determines

the allocation of revenue requirements to be recovered from each customer class based on the costs they impose on the utility.

To facilitate the study, the SAWS Board of Trustees appointed the Rates Advisory Committee (RAC), a 20-member advisory group to provide input on the COS study. The RAC included representatives from throughout the community including ten members nominated by City Councilmembers. The SAWS Board of Trustees also engaged a national rate consultant, Carollo Engineers, Inc. (Carollo), to work with the RAC and SAWS staff on the development of the COS study. In conducting the study, the consultant utilized industry practices and principles established by the American Water Works Association (AWWA) and the Water Environment Federation (WEF).

City staff observed all RAC public meetings and conducted a review of the work and recommendations from Carollo and the RAC. The complete “San Antonio Water System Rate Study Technical Memorandum, Water and Wastewater Cost of Service” (“Memorandum”) prepared by Carollo can be found on-line at: [https://apps.saws.org/who\\_we\\_are/community/rac/docs/Final%20Tech%20Memo%20COS%20Feb%202022.pdf](https://apps.saws.org/who_we_are/community/rac/docs/Final%20Tech%20Memo%20COS%20Feb%202022.pdf)

The two main objectives for the study are to evaluate the existing rate structure, make adjustments as necessary and to apply the existing cost of service to that adjusted structure. All classes received the updated cost of service application. After completion of the cost of service study; adjustments are needed for the water delivery and wastewater core business rates for both the residential and commercial classes, however, there are no structural changes necessary for the water supply core business. The key rate structural changes that were made include the following:

- Residential water delivery volumetric rate moved from 8 to 5 tiers
- Residential wastewater volumetric rate moved from 3 to 2 tiers
- Affordability costs were removed from the residential class into its own rate class funded by a volumetric pass-through charge on the non-affordability classes.
- There were no structural changes to the general, irrigation, wholesale, or recycled rate classes

The recommended changes to the current rate structure approved by the SAWS Board of Trustees and forwarded for City Council consideration are summarized throughout this report and in Attachment A. The complete details of all changes are included as attachments to the proposed Ordinances submitted for City Council approval. The RAC’s recommendations were reached by consensus of the RAC members. In addition, The RAC’s recommendations are contained in the Memorandum found at the link listed above. SAWS staff concurred with the RAC and proposed no changes to the recommendations submitted to the SAWS Board of Trustees.

**Summary:**

- 83% of residential customers will see a reduction in their water bills and 100% of residential customers will see a reduction in their wastewater bills
- The combined water and wastewater bill for residential essential use (5,061 gallons per month) will decrease by 8.4%
- Fixed charges will decrease 20% for most residential customers

- A separate rate structure with reduced rates will replace the current Affordability Discount Program and will be called “Uplift”
- The Uplift program will be funded by a volumetric pass-through charge applied to non-ADP customers usage called the Uplift Assistance Program Fee.
- 98% of the customers enrolled in the current Affordability Discount Program will see a reduction in their bill under the proposed affordability rates with reductions ranging from 33% to 57% for essential water use
- Reduced fixed charges for the general class will benefit small businesses and low-usage customers
- Steep inclining rates for irrigation send price signals for discretionary outdoor water usage
- Recommended recycled water rate increases over the next 5-years to improve COS recovery

### **Residential Class:**

#### **Water –**

SAWS’ existing residential water rates have been in place since January 1, 2020, and include monthly fixed charges based on meter size and tiered volumetric rates for water supply and water delivery. The volumetric rate structure consists of eight tiers, increasing the rate per 1,000 gallons as a customer uses more water. The proposed new rate structure includes a two-tiered fixed charge and five-tier volumetric rate. The two-tiered fixed charge increases for customers who exceed tier one usage. The proposed fixed charges decrease for most customers by 20%.

The recommendation proposes to eliminate three volumetric tiers by increasing the size of Tiers 1 through 4. Tier 5 is comparable to the existing Tier 8. This recommendation decreases rates in lower tiers and increases rates more in higher tiers. The recommended rate structure reflects the cost of service and the pricing objectives of affordability, conservation, equity and is simple to understand.

The overall bill impact shows approximately 83% of residential customers will see a reduction in their water bills. Table I below illustrates the changes to the rate tiers from the current residential water rate structure to the proposed. A volumetric water Uplift Fee (included in Attachment A) recovers the cost of the recommended affordability program rate structure. In addition, Attachment A includes the updated rates for all customer classes as proposed under the updated cost of service update.

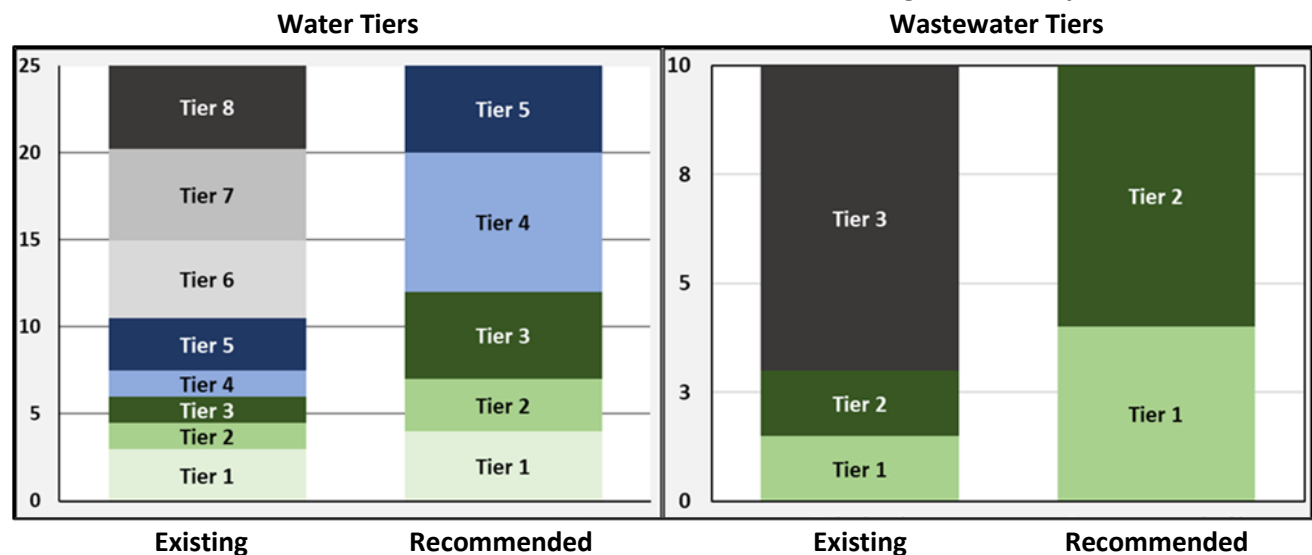
#### **Wastewater –**

SAWS’ existing residential wastewater rates have been in place since January 1, 2019, and include monthly fixed charges based on meter size and tiered volumetric rates. The volumetric rate structure consists of three tiers, increasing the rate per 1,000 gallons as a customer’s estimated wastewater flow increases. A residential customer’s monthly wastewater flow is estimated based on the customer’s usage from three consecutive billing cycles between November 15 and March 15.

The proposed wastewater volumetric rate structure moves from three tiers to two tiers. The proposed fixed charges move from two down to one. Like water, a volumetric wastewater Uplift Fee recovers the cost of the recommended affordability program rate structure. As a result of the proposed adjustments, 100% of residential customers will see a reduction in their wastewater bills. The combined residential water and wastewater bill will decrease 8.4% for essential water use (6,275 gallons per month). The

comparison between the existing and the proposed water and wastewater volumetric tiers are included in Table I below, and Table II includes the bill impacts.

**Table I – Residential Water and Wastewater Rate Structure Changes, Tier Comparison**



**Table II – Residential Bill Impact at Different Usage Levels**

Usage (Gallons) *	Current 2022 Rates **	Proposed 2023 Rates **	2023 \$ Difference	2023 % Difference
1,500W & WW	\$ 28.28	\$ 27.10	\$ (1.18)	-4.2%
3,000 W & WW	\$ 39.01	\$ 35.19	\$ (3.82)	-9.8%
5,000 W & WW	\$ 57.05	\$ 52.06	\$ (4.99)	-8.7%
7,092 W & 5,052 WW	\$ 69.51	\$ 62.79	\$ (6.72)	-9.7%
8,500 W & 5,052 WW	\$ 79.70	\$ 74.99	\$ (4.71)	-5.9%
11,000 W & 5,052 WW	\$ 99.20	\$ 96.65	\$ (2.55)	-2.6%
16,000 W & 5,052 WW	\$ 144.60	\$ 150.61	\$ 6.01	4.2%
22,000 W & 5,052 WW	\$ 215.70	\$ 227.98	\$ 12.28	5.7%

\* Wastewater usage of 5,052 reflects avg. residential usage, W – Water, WW - Wastewater

\*\* Assumes 5/8" meter; includes the Uplift recovery, excludes pass through fees (EAA, City Stormwater & TCEQ)

### **Affordability:**

SAWS affordability program, recently renamed “Uplift”, provides discounts to existing bills for water and wastewater. Currently, SAWS offers four levels of affordability bill discounts for residential customers through its current Uplift program based on household family size and income. Households with income at or below 125% of the Federal Poverty Level (FPL) are eligible to apply for a discount. The current program serves 34,644 water and wastewater customers as of October 2022.

The proposed rate structure adjustments include a new separate discounted rate for both water and wastewater for qualified affordability program customers. The new proposed rate structure includes increased funding from \$8.2 million to \$17.8 million, a 117% increase (see Table III below). This seeks to address a key RAC pricing objective of affordability. Whereas the former program had tiered discounts,

under the new proposed affordability rate, customers who qualify will receive the same discounted rate regardless of their federal poverty level. Eligibility will continue to be based on household income at or below 125% of FPL.

**Table III – Affordability Projected Cost**

	<b>Cost of Existing Discount Program</b>	<b>Cost of Separate Affordability Structure</b>	<b>Volumetric Charge</b>
Water Supply	\$2,602,382	\$5,382,461	\$0.083
Water Delivery	\$1,588,121	\$4,904,549	\$0.076
<b>Total Water</b>	<b>\$4,190,503</b>	<b>\$10,287,010</b>	<b>\$0.159</b>
Wastewater	\$4,002,638	\$7,496,785	\$0.161
<b>Total</b>	<b>\$8,193,141</b>	<b>\$17,783,795</b>	<b>\$0.320</b>

The cost of the new affordability rate will be recovered from non-affordability residential, general class, and irrigation customers through an Uplift Assistance Program Fee (UAP Fee) initially set at \$0.159 for water and \$0.161 for wastewater per 1,000 gallons (total \$0.32). The UAP Fee is proposed as a pass-through fee adjusted annually. The cost of the current affordability program is budgeted at \$8.2 million and is recovered through the water and wastewater rates.

#### **Water –**

As part of the new affordability rate structure, affordability program customers will not pay the normal fixed charge. Their fixed charge will be zero (a \$9.00 discount for a residential ICL water customer) if their usage remains in the first volumetric tier (Tier 1 = up to 2,000 gallons). If they exceed the Tier 1 volume, the fixed charge will only be \$3.00 (an \$8.00 discount for residential ICL water customers in Tier 2).

The recommended volumetric rate structure includes five-tiers to incentivize conservation and send a price signal to customers who may have a leak. There is no charge for Tier 1 usage. These customers would only pay for the TCEQ and EAA pass-through fees. The goal of the recommended rate structure was to set rates so that every qualified Uplift program customer's bill would remain the same or decrease and to acknowledge that low-income households may use more water due to larger household size and/or older plumbing.

The results are that approximately 98% of affordability customers should see a reduction in their bill. When compared to non-affordability residential customers, the fixed charges are 85% to 100% lower, and the volumetric charges are discounted 40% to 50% in most cases. All customers enrolled in the current Affordability Discount Program will be automatically enrolled in the new program and will see a reduction in their bill from 33% to 57% for essential water use.

#### **Wastewater –**

For wastewater, the new proposed separate rate structure includes the elimination of the wastewater fixed charge for qualified affordability program customers. The recommended volumetric rate structure includes two tiers with no charge for Tier 1 volume, which is up to 2,000 gallons per month. These customers would still pay for the TCEQ and EAA pass-through fees. Table IV below illustrates example bill impacts for water and wastewater at various usage levels for affordability rate class customers. In addition, Attachment A includes the class rate structure fixed and variable charge details.

**Table IV – Water and Wastewater Affordability Bill Impact**

<b>Current Affordability Discount</b>					
<b>Usage Level</b>	<b>Current Total Bill (Non-Affordability)</b>	<b>Total Bill @ 50% of FPL</b>	<b>\$ Discount</b>	<b>Total Bill @ 100% of FPL</b>	<b>\$ Discount</b>
<b>2,500 W 2,500 WW</b>	\$ 33.71	\$ 5.36	\$ (28.35)	\$ 21.21	\$ (12.50)
<b>6,275 W 5,052 WW</b>	\$ 64.29	\$ 35.94	\$ (28.35)	\$ 51.79	\$ (12.50)
<b>8,500 W 5,052 WW</b>	\$ 79.70	\$ 51.35	\$ (28.35)	\$ 67.20	\$ (12.50)
<b>22,000 W 5,052 WW</b>	\$ 215.70	\$ 187.35	\$ (28.35)	\$ 203.20	\$ (12.50)

<b>Proposed Affordability Rate Class</b>			
<b>Usage Level</b>	<b>Proposed Total Bill (Non-Affordability)</b>	<b>Total Bill Affordability Rate</b>	<b>\$ Discount</b>
<b>2,500 W 2,500 WW</b>	\$32.50	\$5.68	(\$26.82)
<b>6,275 W 5,052 WW</b>	\$58.49	\$22.93	(\$35.56)
<b>8,500 W 5,052 WW</b>	\$74.99	\$31.78	(\$43.21)
<b>22,000 W 5,052 WW</b>	\$227.98	\$135.80	(\$92.18)

\* Excludes EAA, City Stormwater & TCEQ Pass-Through Fees, W – Water, WW – Wastewater, FPL – Federal Poverty Level

Proposed accountability procedures include:

1. Funds collected through the Uplift Assistance Program Fee (UAP Fees) must be accounted for separately and by class; and
2. At least sixty days prior to the annual update of the UAP Fee, SAWS will provide to the City's Public Utilities Division:
  - a. The proposed UAP Fee,
  - b. The calculation used to develop the fee including projected enrollment in the Uplift Program, any over or under recovery for the prior period, and projected annual water usage,
  - c. Underlying support for the calculation components, and
  - d. Any additional information requested by the City's Public Utilities Office
3. Public Utilities will monitor the recovery of the UAP Fee pass through.

**General Class:**

**Water –**

SAWS General Class Rates include rates for multi-family (apartments), commercial and industrial customers. SAWS' existing general class water rates have been in place since January 1, 2020, and include monthly fixed charges based on meter size and tiered volumetric rates for water supply and water delivery based on the customers prior year average annual consumption or base usage. The volumetric rate structure consists of four tiers, increasing the rate per 1,000 gallons as a customer moves through the tiers.



SAWS conducted a study of multi-family usage to determine if a different type of rate structure might be appropriate for multi-family customers in the future. Prior RACs have evaluated disaggregating multi-family customers from the general class. Even though the multi-family cost of service is slightly lower than the Commercial/Industrial cost of service, the revenue derived from multi-family is less than its cost of service. Disaggregating would result in higher rates for multi-family customers and the increased rates would likely be passed on to tenants. The RAC recommended maintaining the general class to include multi-family, commercial, and industrial customers.

The rate structure recommendation is to maintain the existing volumetric four-tier structure, which is based on a percentage of each customer's prior year base usage (Average Annual Consumption). The fixed charge is reduced to match the Tier 2 residential fixed charge plus the existing conservation charge of \$1.70 per month for a 5/8-inch meter (the rate increases for larger meters). The adjusted structure addresses the pricing objective of cost of service and conservation.

#### **Wastewater-**

The existing general class wastewater rates have been in place since January 1, 2019 and include monthly fixed charges based on water meter size and a two-tiered volumetric rate structure. The recommended fixed charges for the general class remain the same as those of the residential class, which decreased, but have been adjusted accordingly for the larger meter sizes. The volumetric rate structure moved from a two-tiered structure to a single-tier uniform rate. It also includes the affordability program cost recovery fee.

As a result of these changes to the General Class water and wastewater rate structure, small businesses will benefit from the lowering of the fixed charge. Also, for water the inclining block rates remain tied to prior year average usage which ensures that customers with peak usage pay more than consistent water users. Table V below illustrates the combined bill impacts for General Class water and wastewater customers at various usage levels.

**Table V – General Class Combined Bill Impact for ICL Customers**

Sample Customer	Meter Size	Monthly Usage	Water Base Usage	Current Bill	Proposed Bill	Difference (\$)	Difference (%)
Low	5/8"	1.0	1.0	\$33.80	\$33.03	(\$0.76)	-2%
			0.7	\$34.22	\$33.48	(\$0.74)	-2%
			0.5	\$34.94	\$34.23	(\$0.71)	-2%
Medium	3/4"	8.0	8.0	\$104.18	\$107.26	\$3.08	3%
			6.0	\$106.46	\$109.65	\$3.19	3%
			4.0	\$113.31	\$116.83	\$3.52	3%
High	2"	200.0	200.0	\$1,986.45	\$2,088.59	\$102.14	5%
			150.0	\$2,043.56	\$2,148.43	\$104.87	5%
			100.0	\$2,214.62	\$2,327.92	\$113.29	5%

\* Monthly Usage and Water Base Usage are in thousand gallons

\* Proposed bill includes the affordability program cost recovery fee

\* Monthly Usage is the consumption for that month, Water Base Usage is the prior year average annual consumption

#### **Irrigation Class:**

SAWS staff and Carollo developed one irrigation rate option for consideration by the RAC and that was to maintain the existing four-tier rate structure. Like the general class, irrigation fixed charges are the same as Tier 2 residential fixed charges and includes the conservation charge (discussed above) to recover the irrigation class's portion of conservation program costs. The volumetric rates were recalculated with updated cost of service and affordability program cost recovery charge. The steep inclining block rates send price signals for discretionary outdoor water use.

### **Wholesale Class:**

#### **Water –**

SAWS existing wholesale water rates have been in place since January 1, 2020, and include monthly fixed charges based on meter size and tiered volumetric rates for water supply and water delivery based on the customer's prior year base usage. The volumetric rate structure consists of two tiers, increasing the rate per 1,000 gallons when a customer exceeds its average annual consumption or negotiated contract. SAWS staff and Carollo recommended to maintain the existing two-tier rate structure with a reduced tier differential. The recommended option was developed using the 2022 budget with no overall revenue increase and using the final wholesale water cost of service.

#### **Wastewater –**

SAWS existing wholesale wastewater rates have been in place since January 1, 2019, and include a monthly fixed charge and a uniform volumetric rate. SAWS staff and Carollo recommended maintaining the existing rate structure for wholesale wastewater. The existing rates were adjusted using the 2022 budget with no overall revenue increase, no change to the fixed charge, and using the final wholesale cost of service.

### **Financial Summary:**

**Revenue Neutrality** – The proposed recommendations are revenue neutral, which means the rates are forecast to generate the same revenue as existing rates under the same customer account and usage assumptions. Table VI and Table VII below illustrate the cost recovery by class under the existing rate structure and the cost recovery projected with the proposed structure changes.

**Table VI – Total Water Cost of Service**

<b>Customer Class</b>	<b>Proposed Structure</b>	<b>Current Structure</b>	<b>Difference (\$)</b>	<b>Difference (%)</b>
Residential	\$280,671,916	\$285,070,645	(\$4,398,729)	-1.5%
General*	\$152,786,349	\$149,940,444	\$2,845,905	1.9%
Irrigation	\$56,183,071	\$56,183,071	\$0	0.0%
Wholesale	\$2,398,077	\$2,285,451	\$112,626	4.9%
Recycled Water	\$4,425,198	\$2,985,000	\$1,440,198	48.2%
<b>Total</b>	<b>\$496,464,611</b>	<b>\$496,464,611</b>	<b>\$0</b>	<b>0.0%</b>

*\* General Class includes Multi-Family, Commercial, and Industrial*

**Table VII – Wastewater Cost of Service**



Customer Class	Proposed Structure	Current Structure	Difference (\$)	Difference (%)
Residential	\$153,486,460	\$164,480,244	(\$10,993,784)	-6.7%
General*	\$110,335,885	\$98,537,207	\$11,798,679	12.0%
Wholesale	\$11,611,699	\$11,895,651	(\$283,952)	-2.4%
Surcharge	\$5,364,764	\$5,885,707	(\$520,943)	-8.9%
Total	\$280,798,808	\$280,798,808	\$0	0.0%

*\*General Class includes Multi-Family, Commercial, and Industrial*

**Revenue Sufficiency** – The recommendation for the residential rate structure reduces fixed charges and increases volumetric rates for higher usage. Moving recovery from a set fixed charge to a volumetric rate increases revenue volatility, meaning lower revenues in wet years and higher in dry. The City’s Public Utility Staff requested revenue sensitivity analysis from SAWS and reviewed the data. SAWS’ analysis determined that revenue from the proposed residential rates would be more variable than the current rates. However, compared to 2021, which had above normal rainfall during April through October, the proposed rates are only slightly more variable than the current residential rates assuming 2021 usage patterns. The analysis illustrates that the potential increased revenue volatility under the new proposed structure is manageable.

## SPECIAL SERVICE FEES

### **Background and Summary of Changes:**

In the utility industry, it is customary to assess a range of fees for special services that are associated for the benefit of a particular customer. These fees are designed to recover costs associated with providing special services and help decrease pressure on system-wide rates, which otherwise subsidize special services provided to limited groups of customers.

City staff received all the backup data to review the fees being adjusted, removed, and any new fees being added. Fees such as laboratory fees, customer deposits, industrial waste fees, and other fees are increasing to cover higher costs. Some fees were adjusted downward including for residential customers that qualify for the new affordability Uplift assistance rate structure. One new fee was added for backflow inspection compliance. This new fee primarily impacts industrial customers that are non-compliant with required inspections of back-flow prevention assemblies. This is not a fee for the average residential customer who failed to get their irrigation system inspected annually.

Overall, the fee proposals are estimated to generate an additional \$120,757 (2%) in net new annual fee revenue for the utility. The fee proposals have been developed using a cost of service methodology. Additionally, it is recommended that provisions in the City Code be made for certain of the Special Services fees to automatically increase at the annual rate of inflation each year after 2023, however, these fees would continue to be subject to a cost of service study conducted with any future general rate increase request.

## RECYCLED WATER

### **Background and Summary of Changes:**

SAWS operates the nation’s largest direct recycled water system. Recycled water is a by-product of sewage treatment and uses state of the art treatment processes to remove wastewater contaminants. SAWS conveys its recycled water through the SAWS purple pipe system for beneficial uses including landscape and golf course irrigation, industrial processes, cooling towers, and supplementing flows in the San Antonio River and Salado Creek.

Currently, recycled water rates recover approximately one-third of the SAWS recycled water system cost of service. The remaining costs are recovered from rates charged to potable water users. In order to recover more of the recycled water system costs from customers directly using the service, the 2022 SAWS Rate Advisory Committee (2022 RAC) recommended that the City Council adopt a 15.0% increase in recycled water rates for 2023 and a maximum annual “up-to” percentage adjustment to recycled water rates for 2024 (10.0%), 2025 (10.0%), 2026 (10.0%) and 2027 (10.0%), respectively.

The proposed change is not a general rate increase impacting SAWS water and wastewater customers. It will only impact customers receiving recycled water service. As a large recycled water customer, the City’s annual bill impact over the five-year rate plan is projected in the Table VIII below.

**Table VIII – Recycled Water City Bill Impact**

	<b>Total Bill</b>	<b>Annual Increase</b>
<b>Current</b>	\$ 862,998	
<b>2023</b>	\$ 960,839	\$ 97,841
<b>2024</b>	\$ 1,068,714	\$ 107,875
<b>2025</b>	\$ 1,176,588	\$ 107,874
<b>2026</b>	\$ 1,295,250	\$ 118,662
<b>2027</b>	\$ 1,425,778	\$ 130,528
<b>Increase in Year 5</b>		<b>\$ 562,780</b>

Proposed accountability procedures for the 5-year rate plan include:

1. SAWS shall consult with the SAWS Board to determine the appropriate level of maximum recovery for the Recycled Water System, when compared to a 100% cost of service, to recognize the positive benefits of the system as an alternative to the use of potable water, benefits to conservation, and continue encouraging its utilization.
2. Provide the City’s Office of Public Utilities a mid-year financial report on the Recycled Water System as of June 30 each year to be delivered no later than August 15 each year. Report will include an analysis of the cost of service recovery level for the recycled water system compared to the latest cost of service analysis.
3. City Staff will review the recovery goal set by the Board of Trustees. At least, sixty days prior to the implementation of any previously approved “up-to” rate increase under the rate plan, SAWS will provide to the City’s Public Utilities Division:
  - a. The proposed rate increase and the calculation method,
  - b. Underlying support for the increase, and
  - c. Any additional information requested by the City’s Public Utilities Office.
4. Annual adjustments under the pre-approved “up-to” maximum amounts require concurrence of the Supervisor of Public Utilities.

## CHILLED WATER

### **Background and Summary of Changes:**

SAWS operates a Chilled Water System which provides air-conditioning service to customers in Downtown and Port San Antonio (Port SA). The Downtown Chilled Water System was originally created to serve Hemisfair in 1968. When SAWS was created in 1992, the Chilled Water operation was one of the functions consolidated into SAWS, and in 2000 the Port SA Chilled Water System became part of the System as well. The system functions by operating centralized water chilling plants and passing water chilled to near freezing through pipes to heat exchangers in customer buildings, which provide cooling for the customers' air handling systems. The system provides energy efficiency and GHG emission reduction through a large-scale centralized system and shifting electrical demand off peak. Chilled Water customers benefit from:

1. Avoiding capital cost by not having to build their own cooling systems,
2. Avoiding staffing and maintenance cost operating their own systems,
3. Enhancing reliability due to economies of scale and having multiple chillers,
4. Freeing rooftop and building space for other customer uses, and
5. Reducing lifecycle cooling costs.

There are twenty-one customers on the Downtown System, with 70% of the system serving the City of San Antonio, primarily for cooling the Alamodome and Convention Center. The balance of customers are primarily hotels and government buildings in and around the Convention Center area. The Port SA System serves five customers: Boeing, Standard Aero, Chromalloy, United States Air Force, and Port San Antonio. Customers are billed monthly for Chilled Water Services based on the Council approved Chilled Water Rates.

Chilled Water Rates currently have two primary components: a variable commodity charge and a fixed capacity (demand) charge. The commodity charge is designed to pass through water and energy cost of operating the system. The demand charge is designed to recover the remaining cost of the system including labor, operations and maintenance, and debt service. Separate commodity and demand charges have been established for the Downtown and Port SA Systems.

In 2022, a 10% increase was approved for both the Downtown and Port San Antonio demand charges. Prior to that increase, there had been no increase in the demand charge rate for Downtown Chilled Water customers since 1999 and no increase in the Port San Antonio Chilled Water demand charge since 2005. In 2022, it was recognized that even with the 10% increase, the Chilled Water System would not generate sufficient cash flow to fund needed capital improvements; however, SAWS committed to develop a long-term business and rate plan for the Chilled Water System to move it towards self-sufficiency.

In July 2021, SAWS engaged a consultant to develop a long-term business and rate plan. The scope of the consultant's work included capital expenditures planning, financial planning, energy efficiency, controls/metering, management/staffing, hydraulic modeling, customer contracts, Port SA analysis and marketing/communications. To continue its commitment to moving the Chilled Water System towards self-sufficiency, SAWS proposes to implement an additional demand charge rate increase of 12.0% for

both Downtown and Port San Antonio customers on or about January 1, 2023. Authorization is also requested allowing further maximum “up-to” annual percentage adjustments to demand charge rates for 2024 (12.0%), 2025 (10.0%), 2026 (8.0%) and 2027 (8.0%), respectively.

Additionally, City Council is being asked to approve two new Chilled Water rate components, a Delta T Adjustment Charge, and a Capacity Charge Ramp Up Schedule on or about January 1, 2023, amending City Council Ordinances No. 96794 and No. 100588. The Delta T adjustment charge adjusts the commodity portion of a customer’s chilled water bill based on their average Delta T, which is determined by the difference in water temperature between its delivery to the customer and return to SAWS and incentivizes the efficient management of the customer’s system. The Contract Capacity Ramp Up Schedule allows a new customer to ramp up their capacity tonnage by 10% per month for up to 10 months.

The proposed demand charge increases, and two new Chilled Water rate components are not a general rate increase impacting SAWS water and wastewater customers. It will only impact customers receiving chilled water service. The impact on City accounts of the five-Year rate plan is shown in Table IX.

**Table IX – Chilled Water City Bill Impact\***

	<b>Total Demand Bill</b>	<b>Annual Increase</b>
<b>Current</b>	\$ 3,446,467	
<b>2023</b>	\$ 3,756,649	\$ 310,182
<b>2024</b>	\$ 4,207,447	\$ 450,798
<b>2025</b>	\$ 4,647,492	\$ 440,045
<b>2026</b>	\$ 5,040,908	\$ 393,416
<b>2027</b>	\$ 5,444,181	\$ 403,273
<b>Increase in Year 5</b>		<b>\$ 1,997,714</b>

\* Assumes maximum “up-to” rate increases each year compared to the current demand rate over the 5-yr. period and on a City Fiscal Year basis whereas SAWS changes are on a calendar year.

Proposed accountability procedures for the 5-year rate plan include:

1. SAWS to provide the City’s Office of Public Utilities with quarterly financial reports on the Chilled Water System including:
  - a. Financial sources and uses report with year-to-date tracking to budget
  - b. Progress on the capital plan
  - c. Detailed status of marketing efforts
2. Develop a detailed plan addressing the recommendations from the Chilled Water consultant’s report,
3. Perform customer outreach on the plan to include existing and potential growth in both downtown and PortSA.
4. Update the plan for growth scenarios based on the customer feedback.
5. At least sixty days prior to implementation of any previously approved “up-to” rate increase, SAWS will provide to the City’s Office of Public Utilities:
  - a. The proposed increase and the calculation method,

- b. Underlying support for the increase, and
  - c. Any additional information requested by Public Utilities.
- 6. Annual adjustments under the pre-approved “up-to” maximum amounts require concurrence of the Supervisor of Public Utilities.

## ATTACHMENT A

### Residential Water – Fixed Charges

Meter Size	ICL Tier 1 Usage	ICL Tier 2 + Usage	OCL Tier Usage	OCL Tier 2 + Usage
5/8"	\$9.00	\$11.00	\$11.70	\$14.30
3/4"	\$11.93	\$13.93	\$15.51	\$18.11
1"	\$17.79	\$19.79	\$23.13	\$25.73
1 1/2"	\$32.44	\$34.44	\$42.18	\$44.78
2"	\$50.02	\$52.02	\$65.03	\$67.63

### Residential Water – Volumetric Charges ICL

Tier Usage Range	% of Usage in Tier	Tier Differential	Water Supply Rate	Water Delivery Rate	Affordability Program Recovery Rate	Total Water Rate
0.000 - 4.000	52%	---	\$1.631	\$0.907	\$0.159	\$2.697
4.001 - 7.000	21%	1.85x	\$3.018	\$1.678	\$0.159	\$4.855
7.001 - 12.000	14%	3.35x	\$5.464	\$3.039	\$0.159	\$8.662
12.001 - 20.000	7%	4.40x	\$7.177	\$3.991	\$0.159	\$11.327
20.001 +	6%	6.25x	\$10.194	\$5.669	\$0.159	\$16.022

\* Monthly Usage and Water Base Usage are in thousand gallons

### Residential Water – Volumetric Charges OCL

Tier Usage Range	% of Usage in Tier	Tier Differential	Water Supply Rate	Water Delivery Rate	Affordability Program Recovery Rate	Total Water Rate
0.000 - 4.000	49%	---	\$1.631	\$1.180	\$0.159	\$2.970
4.001 - 7.000	21%	1.85x	\$3.018	\$2.182	\$0.159	\$5.359
7.001 - 12.000	15%	3.35x	\$5.464	\$3.951	\$0.159	\$9.574
12.001 - 20.000	8%	4.40x	\$7.177	\$5.189	\$0.159	\$12.525
20.001 +	7%	6.25x	\$10.194	\$7.370	\$0.159	\$17.723

\* Monthly Usage and Water Base Usage are in thousand gallons

### Residential Wastewater – Fixed Charges

Meter Size	Meter Equivalent Factor	Customer Service and Billing	Meters/Services and Capacity	ICL Monthly Fixed Charge	OCL Monthly Fixed Charge
5/8"	1.0	\$2.23	\$7.77	\$10.00	\$12.00
3/4"	1.5	\$2.23	\$11.66	\$13.89	\$16.67
1"	2.5	\$2.23	\$19.43	\$21.66	\$26.00
1 1/2"	5.0	\$2.23	\$38.85	\$41.08	\$49.30
2"	8.0	\$2.23	\$62.16	\$64.39	\$77.27



### Residential Wastewater – Volumetric Charges ICL

Tier Usage Range	% of Volume in Tier	Tier Differential	Wastewater Rate	Affordability Program Recovery Rate	Total Wastewater Rate
0.000 - 4.000	63%	---	\$2.539	\$0.161	\$2.700
4.001 +	37%	1.75x	\$4.444	\$0.161	\$4.601

\* Monthly Usage and Water Base Usage are in thousand gallons

### Residential Wastewater – Volumetric Charges OCL

Tier Usage Range	% of Volume in Tier	Tier Differential	Wastewater Rate	Affordability Program Recovery Rate	Total Wastewater Rate
0.000 - 4.000	62%	---	\$3.047	\$0.161	\$3.208
4.001 +	38%	1.75x	\$5.333	\$0.161	\$5.494

\* Monthly Usage and Water Base Usage are in thousand gallons

### Affordability – Fixed Charges

Meter Size	Usage Tier	ICL Monthly Fixed Charge	OCL Monthly Fixed Charge
All	Tier 1	\$0.00	\$0.00
All	Tier 2 - 5	\$3.00	\$3.90

### Affordability – Volumetric Charges ICL

Tier Usage Range	% of Usage in Tier	Tier Differential	Water Supply Rate	Water Delivery Rate	Total Water Rate
0.000 - 2.000	32%	---	\$0.000	\$0.000	\$0.000
2.001 - 6.000	43%	---	\$1.650	\$1.000	\$2.650
6.000 - 10.000	16%	1.5x	\$2.475	\$1.500	\$3.975
10.001 - 15.000	6%	2.5x	\$4.125	\$2.500	\$6.625
15.001 +	3%	3.5x	\$5.775	\$3.500	\$9.275

\* Monthly Usage and Water Base Usage are in thousand gallons

### Affordability – Volumetric Charges OCL

Tier Usage Range	% of Usage in Tier	Tier Differential	Water Supply Rate	Water Delivery Rate	Total Water Rate
0.000 - 2.000	32%	---	\$0.000	\$0.000	\$0.000
2.001 - 6.000	43%	---	\$1.650	\$1.300	\$2.950
6.000 - 10.000	16%	1.5x	\$2.475	\$1.950	\$4.425
10.001 - 15.000	6%	2.5x	\$4.125	\$3.250	\$7.375
15.001 +	3%	3.5x	\$5.775	\$4.550	\$10.325

\* Monthly Usage and Water Base Usage are in thousand gallons

### Affordability Wastewater – Volumetric Charges

Tier Usage Range (kgals)	% of Volume in Tier (1)	Tier Differential	ICL Rate (\$/kgal)	OCL Rate (\$/kgal)
0.000 - 2.000	35%/32%	---	\$0.000	\$0.000
2.000 +	65%/68%	---	\$2.700	\$3.240

\* First percentage in each row is for ICL customers and the second percentage is for OCL customers

\* Monthly Usage and Water Base Usage are in thousand gallons

### General Class Combined Bill Impact for OCL Customers

Sample Customer	Meter Size	Monthly Usage	Water Base Usage	Current Bill	Proposed Bill	Difference (\$)	Difference (%)
Low	5/8"	1.0	1.0	\$40.32	\$39.80	(\$0.53)	-1%
			0.7	\$41.56	\$40.29	(\$1.27)	-3%
			0.5	\$43.90	\$41.13	(\$2.77)	-6%
Medium	3/4"	8.0	8.0	\$121.49	\$125.13	\$3.64	3%
			6.0	\$124.03	\$127.81	\$3.77	3%
			4.0	\$131.65	\$135.82	\$4.18	3%
High	2"	200.0	200.0	\$2,288.28	\$2,398.60	\$110.32	5%
			150.0	\$2,351.87	\$2,465.41	\$113.54	5%
			100.0	\$2,542.26	\$2,665.85	\$123.59	5%

\* Monthly Usage and Water Base Usage are in thousand gallons

### General Class Water Rates – Fixed Charges ICL

Meter Size	Meter Equivalent Factor	Residential Tier 2 Fixed Charge	Conservation Charge	Total Monthly Fixed Charge
5/8"	1.0	\$11.00	\$1.70	\$12.70
3/4"	1.5	\$13.93	\$2.55	\$16.48
1"	2.5	\$19.79	\$4.25	\$24.04
1 1/2"	5.0	\$34.44	\$8.50	\$42.94
2"	8.0	\$52.02	\$13.60	\$65.62
3"	16.0	\$98.90	\$27.20	\$126.10
4"	25.0	\$151.64	\$42.50	\$194.14
6"	50.0	\$298.14	\$85.00	\$383.14
8"	80.0	\$473.94	\$136.00	\$609.94
10"	100.0	\$591.14	\$170.00	\$761.14
12"	140.0	\$825.54	\$238.00	\$1,063.54

### General Class Water Rates – Volumetric Charges ICL

Tier Breakpoint (% of AAC)	% of Usage in Tier	Tier Differential	Water Supply Rate	Water Delivery Rate	Affordability Program Recovery Rate	Total Water Rate
100%	83%	---	\$3.079	\$1.958	\$0.159	\$5.196
125%	7%	1.15x	\$3.541	\$2.252	\$0.159	\$5.952
175%	4%	1.50x	\$4.619	\$2.937	\$0.159	\$7.715
175% +	6%	1.75x	\$5.389	\$3.427	\$0.159	\$8.975

\* Monthly Usage and Water Base Usage are in thousand gallons

**General Class Water Rates – Fixed Charges OCL**

Meter Size	Meter Equivalent Factor	Residential Tier 2 Fixed Charge	Conservation Charge	Total Monthly Fixed Charge
5/8"	1.0	\$14.30	\$1.70	\$16.00
3/4"	1.5	\$18.11	\$2.55	\$20.66
1"	2.5	\$25.73	\$4.25	\$29.98
1 1/2"	5.0	\$44.78	\$8.50	\$53.28
2"	8.0	\$67.63	\$13.60	\$81.23
3"	16.0	\$128.57	\$27.20	\$155.77
4"	25.0	\$197.14	\$42.50	\$239.64
6"	50.0	\$387.59	\$85.00	\$472.59
8"	80.0	\$616.13	\$136.00	\$752.13
10"	100.0	\$768.49	\$170.00	\$938.49
12"	140.0	\$1,073.21	\$238.00	\$1,311.21

**General Class Water Rates – Volumetric Charges OCL**

Tier Breakpoint (% of AAC)	% of Usage in Tier	Tier Differential	Water Supply Rate	Water Delivery Rate	Affordability Program Recovery Rate	Total Water Rate
100%	80%	---	\$3.079	\$2.546	\$0.159	\$5.784
125%	7%	1.15x	\$3.541	\$2.928	\$0.159	\$6.628
175%	5%	1.50x	\$4.619	\$3.819	\$0.159	\$8.597
175% +	8%	1.75x	\$5.389	\$4.456	\$0.159	\$10.004

\* Monthly Usage and Water Base Usage are in thousand gallons

**General Class Wastewater Rates – Fixed Charges**

Meter Size	Inside City Limits	Outside City Limits
5/8"	\$10.00	\$12.00
3/4"	\$13.89	\$16.67
1"	\$21.66	\$26.00
1 1/2"	\$41.08	\$49.30
2"	\$64.39	\$77.27
3"	\$126.55	\$151.86
4"	\$196.48	\$235.78
6"	\$390.73	\$468.88
8"	\$623.83	\$748.60
10"	\$779.23	\$935.08
12"	\$1,090.03	\$1,308.04

**General Class Wastewater Rates – Volumetric Charges**

Tier Volume Range	Affordability Program Recovery Rate	ICL Wastewater Rate	Total ICL Wastewater Rate	OCL Wastewater Rate	Total OCL Wastewater Rate
All	\$0.16	\$4.37	\$4.53	\$5.24	\$5.40

\* Monthly Usage and Water Base Usage are in thousand gallons

### Irrigation Class Water – Fixed Charges ICL

Meter Size	Meter Equivalent Factor	Residential Tier 2 Fixed Charge	Conservation Charge	Total Monthly Fixed Charge
5/8"	1.0	\$11.00	\$1.70	\$12.70
3/4"	1.5	\$14.93	\$2.55	\$17.48
1"	2.5	\$22.79	\$4.25	\$27.04
1 1/2"	5.0	\$42.44	\$8.50	\$50.94
2"	8.0	\$66.02	\$13.60	\$79.62
3"	16.0	\$128.90	\$27.20	\$156.10
4"	25.0	\$199.64	\$42.50	\$242.14
6"	50.0	\$396.14	\$85.00	\$481.14
8"	80.0	\$631.94	\$136.00	\$767.94
10"	100.0	\$789.14	\$170.00	\$959.14
12"	140.0	\$1,103.54	\$238.00	\$1,341.54

### Irrigation Class Water – Volumetric Charge ICL

Tier Usage Range	% of Usage in Tier	Tier Differential	Water Supply Rate	Water Delivery Rate	Affordability Program Recovery Rate	Total Water Rate
0.000 - 8.000	14%	---	\$3.831	\$3.423	\$0.159	\$7.413
8.001 - 18.000	11%	1.40x	\$5.364	\$4.793	\$0.159	\$10.316
18.001 - 160.000	51%	1.80x	\$6.896	\$6.162	\$0.159	\$13.217
160.001 +	24%	2.30x	\$8.812	\$7.873	\$0.159	\$16.844

\* Monthly Usage and Water Base Usage are in thousand gallons

### Irrigation Class Water – Fixed Charges OCL

Meter Size	Meter Equivalent Factor	Residential Tier 2 Fixed Charge	Conservation Charge	Total Monthly Fixed Charge
5/8"	1.0	\$14.30	\$1.70	\$16.00
3/4"	1.5	\$19.41	\$2.55	\$21.96
1"	2.5	\$29.63	\$4.25	\$33.88
1 1/2"	5.0	\$55.18	\$8.50	\$63.68
2"	8.0	\$85.83	\$13.60	\$99.43
3"	16.0	\$167.57	\$27.20	\$194.77
4"	25.0	\$259.54	\$42.50	\$302.04
6"	50.0	\$514.99	\$85.00	\$629.99
8"	80.0	\$821.53	\$136.00	\$957.53
10"	100.0	\$1,025.89	\$170.00	\$1,195.89
12"	140.0	\$1,434.61	\$238.00	\$1,672.61

### Irrigation Class Water – Volumetric OCL

Tier Usage Range	% of Usage in Tier	Tier Differential	Water Supply Rate	Water Delivery Rate	Affordability Program Recovery Rate	Total Water Rate
0.000 - 8.000	14%	---	\$3.831	\$4.450	\$0.159	\$8.440
8.001 - 18.000	11%	1.40x	\$5.364	\$6.231	\$0.159	\$11.754
18.001 - 160.000	46%	1.80x	\$6.896	\$8.011	\$0.159	\$15.066
160.001 +	33%	2.30x	\$8.812	\$10.235	\$0.159	\$19.206

\* Monthly Usage and Water Base Usage are in thousand gallons

### Wholesale Water Class – Fixed Charges

Meter Size	Fixed Charge
6"	\$396.14
8"	\$631.94
10"	\$789.14
12"	\$1,103.54

### Wholesale Water Class – Volumetric Charges

Tier Breakpoint (% of AAC)	% of Usage in Tier	Tier Differential	Water Supply Rate	Water Delivery Rate	Total Water Rate
100%	100%	---	\$3.555	\$2.695	\$6.250
100% +	0%	2.00X	\$7.110	\$5.390	\$12.500

\* Monthly Usage and Water Base Usage are in thousand gallons

### Wholesale Wastewater Class – Fixed and Volumetric Charges

Description	Charge
Fixed Monthly Charge	\$340.07
Volumetric Rate (\$/kgal)	\$4.256