

Water Supply Fee Semiannual Report

July-December 2022

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About the cover:

Top Right: The Credit Human building near the Pearl, uses recycled water from SAWS direct recycled water system for irrigation as well as on site reuse to flush toilets.

Top Left: Aquifer Storage and Recovery (ASR) step aerators in operation at H₂Oaks. ASR serves as a key source of water to help meet customer demand during summer heat and record drought such as that experienced in 2022.

Bottom: A resilient landscape with many water saver plants including, Lindheimer and Gulf Muhly grasses.

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Introduction

San Antonio Water System (SAWS) is pleased to present the July - December 2022 Water Supply Fee Semiannual Report to San Antonio City Council. This report is a requirement of Chapter 34 of the Municipal Code, Section 34-1349 and put in place by a 2005 initiative to ensure SAWS was achieving the development of the water supply plan. The requirement has never been altered and as such, is submitted to City Council twice each year, covering the periods of January through June, and July through December.

SAWS was created by an act of the City Council in May 1992, through Ordinance 75686. SAWS serves over 2 million people. The service area covers 928 square miles primarily in Bexar County and portions of Atascosa, Comal, and Medina counties.

This report documents the water resources activities pertaining to the implementation of San Antonio Water System's long-term planning efforts, with focus on activities during the period of July 1 through December 31, 2022. The report will:

- Review the progress on the 2017 Water Management Plan
- Status on the development of the updated Water Management Plan
- Provide a status report on the utility's water production
- Recap the Edwards Aquifer Authority (EAA) critical period cutbacks and drought restrictions during the reporting period
- Provide an update on conservation programs
- Summarize the revenues generated from the water supply fee, and capital spending on water supply projects
- Summarize the maintenance and operational expenses for completed projects

SAWS had a total potable and non-potable demand of 155,461 AF during the second half of 2022. Of that total, 96,108 AF came from the Edwards Aquifer, which accounted for approximately 61.8 percent of the total water distributed to customers. For the year, SAWS distributed 277,122 AF of potable water in 2022. One AF of water is equal to 325,851 gallons.

The current groundwater and surface water supply portfolio consists of:

- Edwards Aquifer
- Canyon Lake
- Carrizo Aquifer
- Lake Dunlap
- Lower Wilcox Aquifer
- Medina Lake & River Rights
- Recycled Water (non-potable)
- Simsboro Aquifer
- Trinity Aquifer

EAA: Critical Period Update

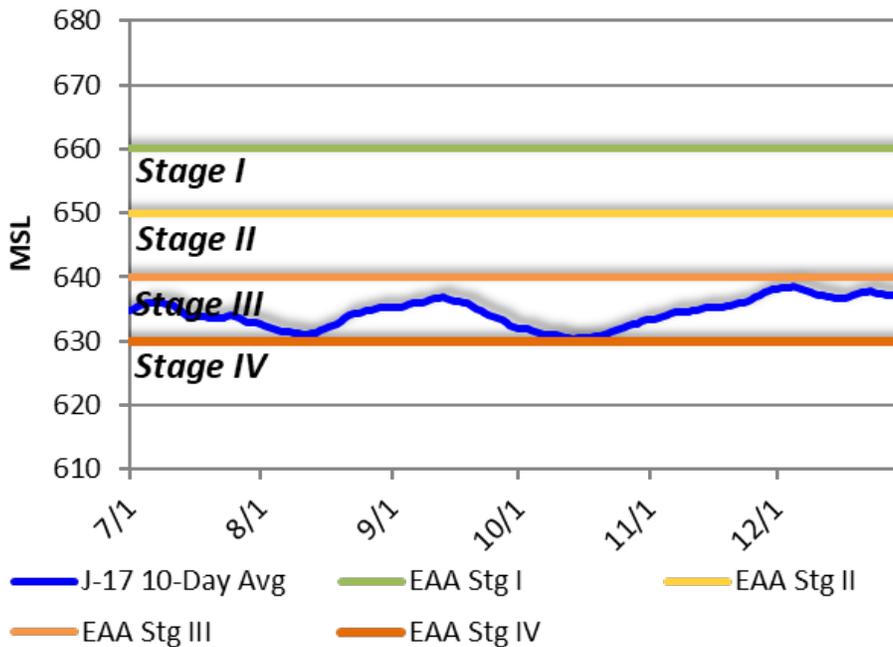
By the end of 2022, San Antonio had recorded its second lowest amount of rainfall since 1917 with only 11.51 inches of rain. This is 20.86 inches below the 30-year average of 32.37 inches.

SAWS finished the year with a 26.68 percent critical period drought cutback to its Edwards Aquifer supply through the EAA. On August 13, the EAA declared stage 4 critical period, which lasted for 6 days. The EAA again moved back into stage 4 on October 10 and returned back to stage 3 on October 27. The EAA was in critical period for a total of 184 days during the reporting period. SAWS customers have been in stage 2 watering restrictions since April 13. SAWS customers in stage 2 drought restrictions, may water with an irrigation System once a week between 7-11am and 7-11pm on the designated watering days.



By the end of the year, SAWS had issued over 4,500 citations to residents and businesses for violating watering rules.

Edwards



San Antonio J-17 Index well level based on mean sea level (msl) for the reporting period

Water Supply Summary

This section summarizes the status for each water resource project for the second half of 2022.

Supply	Acre-Feet Distributed (July-December 2022)	Activity
Edwards Aquifer	96,108	<ul style="list-style-type: none"> Permitted inventory for 2022 is 267,373 AF Regulatory cutback was 26.68% through December 31, 2022
Medina Lake and River System	0	<ul style="list-style-type: none"> Medina Lake at 6.3% of capacity at the end of the reporting period Supply offline
Direct Recycled Water	9,097 <ul style="list-style-type: none"> 3,891 (consumptive) 3,416 (river flow) 1,790 (Mitchell Lake) 	<ul style="list-style-type: none"> System Supply: 25,000 AF
Trinity Aquifer	2,447	<ul style="list-style-type: none"> Below normal precipitation resulted in decreased Trinity Aquifer recharge in Q3 and Q4 of 2022. This has led to decreased production volumes in the second half of 2022

Supply	Acre-Feet Distributed (July-December 2022)	Activity
Canyon Regional Water Authority (CRWA)	2,968	<ul style="list-style-type: none"> 47% of annual contracted volume received during the reporting period
Canyon Lake	3,106	<ul style="list-style-type: none"> Canyon Lake at 79.7% of capacity at the end of the reporting period
H ₂ Oaks Aquifer Storage and Recovery	ASR water recovered and sent to distribution system: 8,292 AF Edwards Water Stored: 4,853 AF	<ul style="list-style-type: none"> ASR system performance test ended on August 22, 2022 189,000 AF of stored water as of December 31, 2022
H ₂ Oaks Carrizo Aquifer	1,543	<ul style="list-style-type: none"> 9,900 AF annual production capacity 16% of annual capacity produced during the reporting period
H ₂ Oaks Brackish Groundwater Desalination Program	1,708	<ul style="list-style-type: none"> BGD offline for two months of reporting period due to August lightning strike of oil tanks on property
Regional Carrizo Project	5,251	<ul style="list-style-type: none"> Includes SAWS Buckhorn wellfield production in Gonzales County plus water purchased from Schertz-Seguin Local Government Corporation Purchased 187 AF from SSLGC in the reporting period and 462 AF for the year
Vista Ridge	24,941	<ul style="list-style-type: none"> 100% of the contracted volume made available was received from July to December Received 48,524 AF for the year

Planned Projects 2017-2025	Status
Conservation Programming	<p>Program highlights from the second half of 2022 include:</p> <ul style="list-style-type: none"> • Increased Conservation messaging by sending personalized WaterSmart reports to over 256,000 customers on a monthly basis, helping single family residential customers identify and participate in conservation opportunities. All low-income customers receiving an affordability discount that we have an email for are auto-enrolled in WaterSmart reports. • Growth in GardenStyle visitors and views of over 20 percent from 2021 to 2022. Over 34,000 customers receiving the weekly GardenStyleSA newsletter. • 1,141 Plumbers to People and Conservation Makeover visits in 2022, with ongoing efforts to assist more customers through collaboration with the Uplift Team. • 2,407 Irrigation Consultations completed at homes in 2022, averaging over 1,100 gallons per month in savings at each home. • 229 households and 4 businesses used Irrigation Efficiency rebates in 2022. • 773 WaterSaver Landscape Coupons redeemed in 2022 to replace grass with drought-tolerant plants. • Over 11,300 customers are signed up for the WaterSaver Rewards program, with virtual and in-person Rewards education opportunities provided by SAWS Conservation and non-profit partner organizations. • 2,845 required accounts are in compliance with the Irrigation Check-Up regulation as of the end of December 2022, resulting in 80 percent overall compliance. • 477 flow sensor rebates were approved and 123 smart irrigation controller coupons have been redeemed in 2022, helping customers better understand and control their water consumption. • Over 4,500 water waste citations and nearly 7,500 water waste alerts were issued in 2022 as San Antonio experienced the second driest year on record. • Conservation initiatives have successfully targeted the need for management of outdoor water demands. • Programming to reduce planned average year consumption from 124 gallons per capita per day (GPCD) in 2017 to 111 GPCD in 2025.

Water Management Plan Process

SAWS Water Management Plan (WMP) serves as the organization's guiding document to project water demands and identify future firm water supplies and progressive water conservation programs to meet the communities water needs for the next 50 years.

The WMP is generally updated on a five-year basis or as conditions warrant to incorporate changes in focus topics such as:

- Population growth and development
- Water demand patterns
- Climate change
- Regulatory changes
- Water supply options
- Conservation programs

SAWS started the WMP process in 2022 by engaging with the community through WaterCitySA.com. The community completed a survey to rank various plan components by level of importance to them. By the end of 2022, SAWS received over 1,000 responses to the survey.

SAWS participated in four online meetings and 29 in-person meetings throughout the community including neighborhood associations, and council districts. The depth of community engagement in the development of this plan will be critical to its success and will be persistent throughout the WMP process.

Due to the extreme drought, SAWS is analyzing supply and demand data to inform and update the ongoing water management plan process, which will continue throughout 2023.

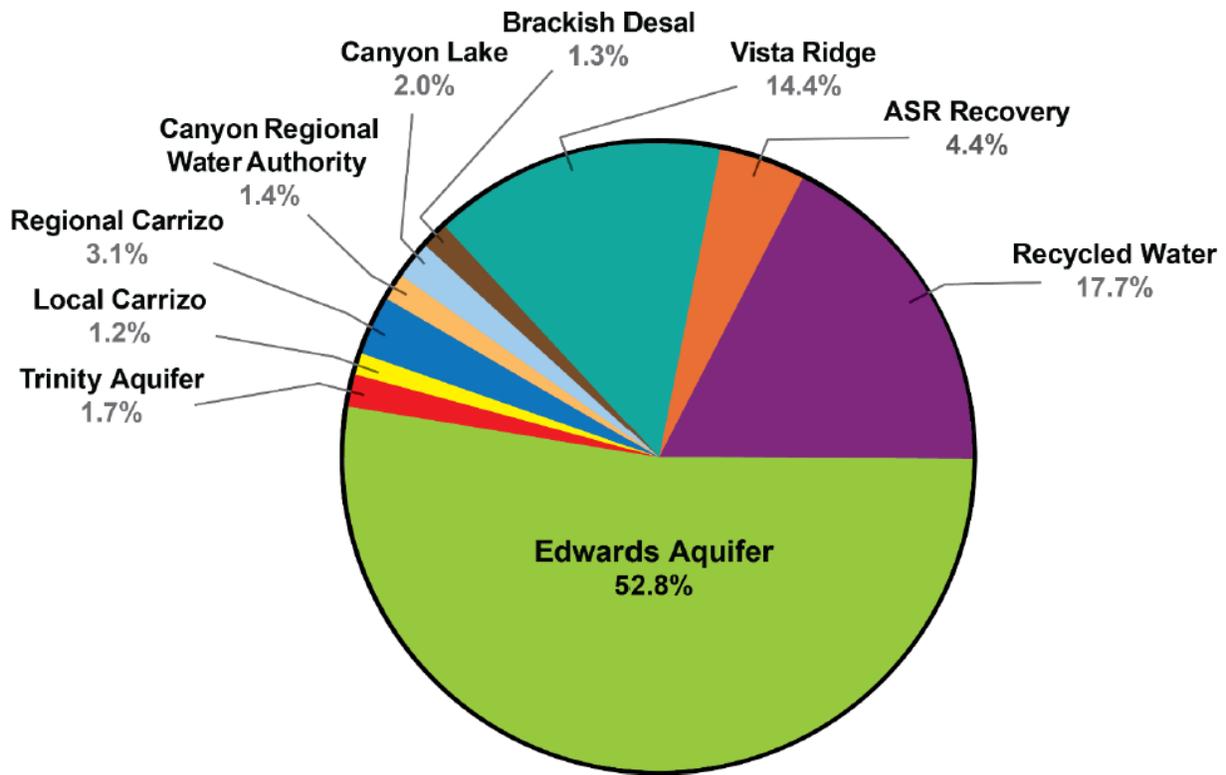


WATER
CITYSA

Distribution to Customers

2022 Distribution of Potable and Non-Potable Water to Customers

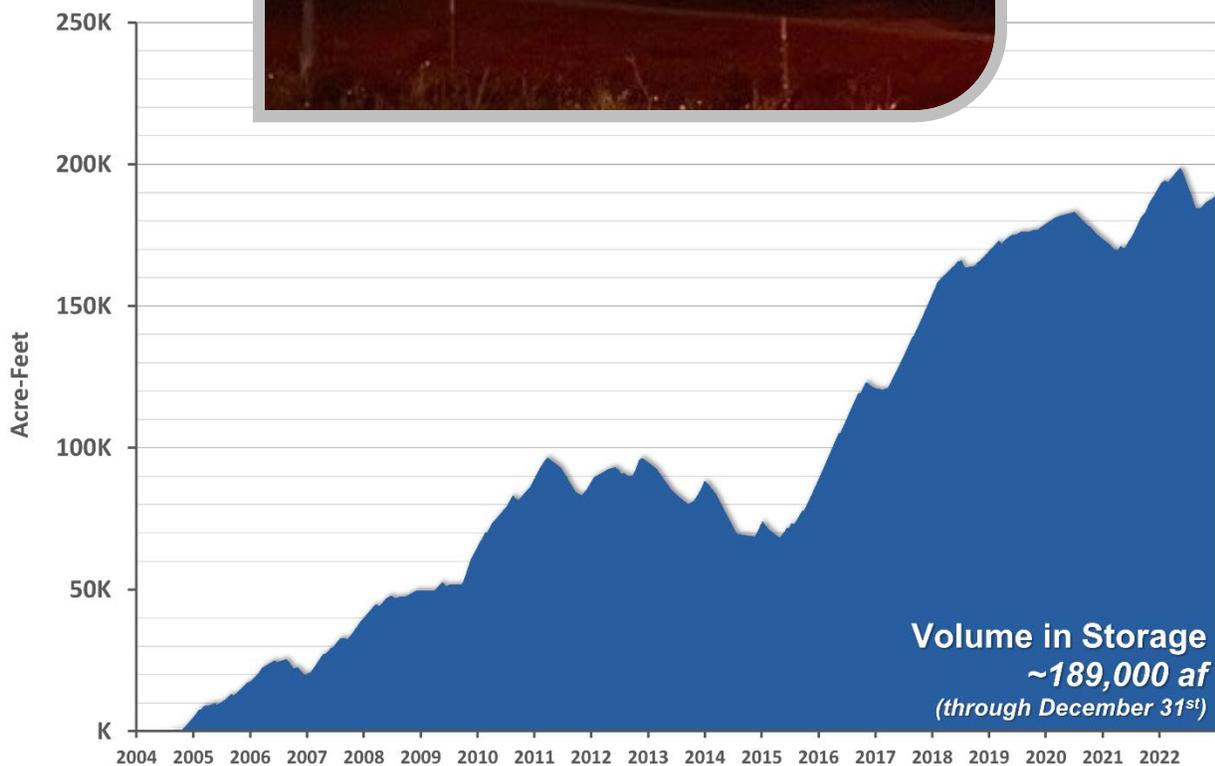
In 2022, San Antonio Water System (SAWS) distributed a total potable water volume of 277,122 acre-feet (AF). This does not include the 11,559 AF of Edwards Aquifer water that was stored in the H₂Oaks Aquifer Storage & Recovery facility. In addition, 59,494 AF of recycled water was supplied to our customers; 42,418 AF to CPS Energy and 17,076 AF to the remaining customers.* The total water demand was supplied by the following sources:



* Volume supplied to customers corrected to include an additional 3,293 AF of recycled water distributed to Mitchell Lake.

Aquifer Storage and Recovery

By the end of the reporting period, SAWS had delivered 8,292 AF of stored Edwards Aquifer Water to its customers to help meet demand during the drought. During the summer, SAWS was in the middle of its planned ASR performance test to evaluate system components. On August 22, lightning struck the ASR property causing all operations at H₂Oaks to shut down. Instantaneously, SAWS had to shut off 25 percent of its water supply. Due to the resiliency of the SAWS distribution system, there was no impact to service delivery. By the end of 2022, SAWS had delivered a total of 14,876 AF of recovered water to its customers. The year ended with 189,000 AF in storage.



Source: San Antonio Water System

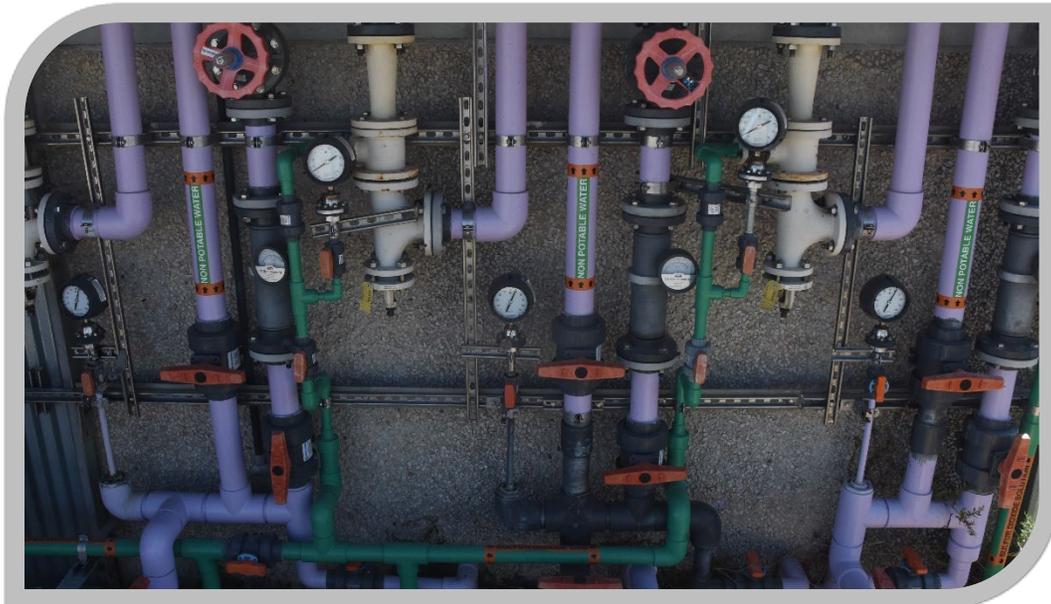
Financial Report

Water Supply Fee

On October 19, 2000, the San Antonio City Council via Ordinance #92753 approved a funding mechanism for the construction and development of additional water resources to meet projected water demands for the SAWS service area for the next 50 years.

The Water Supply Fee assists in funding expenditures for the development of new water resources to include all operating, maintenance, research and development, and capital costs (including debt service when capital expenditures are debt funded). As mentioned earlier, SAWS has the largest direct recycled water system in the nation, which moderates the size of the Water Supply Fee by reducing the need for additional water supplies.

In 2022, SAWS began a cost of service and rate design study with the Rate Advisory Committee (RAC), a diverse cross section of customers. The recommendations from the RAC were submitted to the SAWS Board and were approved for 2023 fiscal year budget. The new rate structure was approved by city council in November of 2022 and became effective January 1, 2023.



Recycled Water infrastructure at the Steven M. Clouse Water Recycling Center

The Water Supply Fee per 100 gallons in 2022 for each customer class is summarized below.

RATE CLASS	Usage Block Thresholds Gallons	Assessed Fee RATE PER 100 GALLONS
<i>Residential</i>	2,992	\$0.1585
	4,489	\$0.2772
	5,985	\$0.3563
	7,481	\$0.4357
	10,473	\$0.5150
	14,962	\$0.5942
	20,199	\$0.7129
	Over 20,199	\$1.0296
<i>General</i>	Base*	\$0.2989
	125% of Base	\$0.3438
	175% of Base	\$0.4482
	Over 175% of Base	\$0.5232
<i>Wholesale</i>	Base**	\$0.3892
	Over Base	\$1.1681
<i>Irrigation</i>	8,229	\$0.3911
	17,954	\$0.5474
	162,316	\$0.7039
	Over 162,316	\$0.8996

* The Base Use for General Class is defined as 100 percent of the Annual Average Consumption.

** The Base Use for the Wholesale Class is defined as 100 percent of the Annual Average Consumption or as agreed to by the wholesale customer and approved by the SAWS Board of Trustees.

Water Supply Fee Financial Reports

The following tables provide an accounting of the collection and uses of the Water Supply Fee since its inception in 2001.

San Antonio Water System Sources and Uses of Funds WaterSupply 2001 – 2022 (\$ in Millions)	
Water Supply Fee	\$2,440.43
Operating Transfer from Water Delivery	190.44
Non-operating income & Other	116.48
Recycle Water Revenues	100.98
Water Supply Impact Fees	392.12
Bond Proceeds	886.71
Water Supply O&M	(1,466.45)
Debt Service ¹	(858.11)
Capital Funding	<u>(1,443.49)</u>
Funds Provided	<u>359.11</u>
Restrictions on Cash	153.24
Designations on Cash	<u>175.52</u>
Unrestricted/Undesignated Funds	<u>\$ 30.35</u>

¹ Includes Principal, Interest and Bond Defeasance Payments.

San Antonio Water System
Operating & Maintenance Expenditures
2001 – 2022
(\$ in Millions)

Operating and Maintenance Costs	
Western Canyon Project - GBRA	\$ 128.90
Oliver Ranch - Lease Payments & Production Costs	36.35
BSR – Lease Payments & Production Costs	6.66
Regional Carrizo - Water Sales Agreements & Other	104.48
Brackish Desalination	21.84
Edwards - Lease Expense & Other	84.38
Aquifer Storage & Recovery Project	63.71
Aquifer Protection & Compliance	55.03
Vista Ridge	283.65
Recycled Water Operations	51.33
Canyon Regional	49.75
Medina Lake	20.83
Trinity Stein/Rogers Ranch	69.74
Conservation Program - net loss/(income)	(20.39)
Stormwater program - net loss	0.92
LCRA - Study Period and Other, Net of Cash Recovery	13.77
Lower Guadalupe Water Supply Project	6.26
Simsboro Aquifer	4.41
Recharge Initiative	0.80
Other Water Resources Cost	24.03
Facilities Maintenance	61.96
Communication & Outreach	20.22
Legal - Water Law	10.26
Billing & Collections	82.01
Finance & Information Systems	75.74
Corporate Facilities	17.46
Human Resources, Safety, Other Benefits	66.71
Other Support Services	39.46
Transfer to COSA	86.18
Total Operating & Maintenance	\$1,466.45

San Antonio Water System
Water Supply Capital
Spending 2001 – 2022
(\$ in Millions)

	FUNDING		
	Cash Funding	Debt	Total
Water Supplies:			
Non-Edwards Water Supplies			
Western Canyon Project - GBRA	\$ 3.31	\$ 10.87	\$ 14.18
Trinity Aquifer Projects (Oliver Ranch/BSR)	12.49	-	12.49
Local Carrizo	1.31	13.51	14.82
Brackish Desalination	59.87	149.37	209.24
Regional Carrizo	56.00	63.81	119.81
Aquifer Storage & Recovery Project (ASR)	17.25	245.61	262.86
Recycled Water System	1.88	87.69	89.57
Total Non-Edwards	152.11	570.86	722.97
Edwards Aquifer Water Rights	87.83	153.16	240.99
Total Water Supply Capital Spending	239.94	724.02	963.96
Other Capital Spending:			
Integration	288.69	136.73	425.42
Land, Buildings & Equipment	48.82	5.30	54.11
	337.51	142.03	479.53
Total Capital Spending	\$ 577.45	\$ 866.05	\$ 1,443.49

San Antonio Water System Cash Restrictions/Designations Water Supply 2001 – 2022 (\$ in Millions)	
Restrictions on Cash:	
Operating Reserve	\$ 40.00
Reserve Fund	15.30
Construction Funds:	
Debt Funds ¹	18.74
Impact Fees ²	<u>79.20</u>
	153.24
Designations on Cash:	
PGA Monitoring/WQEE/Conservation	24.22
Interest Mitigation Fund ³	11.90
2022 & Prior CIP program (cash funds)	<u>139.40</u>
	175.52
Unrestricted/Undesignated Funds	<u>30.35</u>
Total Water Supply Funds Available	<u>\$ 359.11</u>

¹ Represents bond proceeds currently on hand. These proceeds have all been committed to be used on existing projects.

² Represents unspent impact fees. These have all been committed to fund Capital Improvement Program (CIP) projects in the 2022 & prior CIP program or they will be used to help fund future CIP programs.

³ Represents funds accumulated as a result of favorable variances in debt service. Funds may be used for CIP or to otherwise reduce debt service costs.

Acronyms and Abbreviations

AF	Acre-Foot (325,851 gallons)
ASR	Aquifer Storage & Recovery Facility / underground storage facility
CIP	Capital Improvement Program
CRWA	Canyon Regional Water Authority
EAA	Edwards Aquifer Authority
GPCD	Gallons per Capita per Day
MSL	Mean Sea Level
RAC	Rate Advisory Committee
SAWS	San Antonio Water System
WMP	Water Management Plan

