

Water Conservation Plan Annual Report Retail Water Supplier

CONTACT INFORMATION

Name of Utility:	SAN AN		WATER ST							
Public Water Supply Identification Number (PWS ID): TX0150018										
Certification of Convenience and Necessity (CCN) Number: 10640										
Surface Water Rig	Surface Water Right ID Number: 2144-D, 3867-A, 4768-B, 5549-C, 12096									
Wastewater ID N	umber:	20285								
Check all that apply:										
🖌 Retail Wat	er Suppli	er								
Vholesale	Water S	upplier								
Vastewate	er Treatm	nent Utilit	у							
Address: 2800 L	IS Highwa	ay 281 N	I	City:	San /	Antonio	Zip C	ode:		78212
Email: Chelsea.H	lawkins@	esaws.or	g		1	Felephone I	Number:	210704	7283	
Regional Water P	lanning G	Group: L								
Groundwater Cor	servatior	n District:								
Contact: First N	Name: C	Chelsea			Last	Name: Ha	awkins			
Title:	R	Resource	Analyst							
Is this person the designated Conservation Coordinator? O Yes O No										
Is this person the	designat	ed Cons	ervation Co	ordinate	or?	O Yes	• N	lo		
	designate st Name:		ervation Co	ordinate			O N Guz	lo		
	st Name:	Karen	resident,	ordinat		0	-	lo 		l
Coordinator: Fire	st Name: e:	Karen Vice Pr Conser	resident, rvation	ordinate	_ La	0	Guz	lo Code:	78212	
Coordinator: Fire	st Name: e: JS Highw	Karen Vice Pr Conser vay 281 N	resident, rvation		La San	ast Name:	Guz Zip (Code:		
Coordinator: Firs Titl Address: 2800 I	st Name: e: JS Highw uz@saws	Karen Vice Pr Conser vay 281 N s.org	resident, rvation N		La San	ast Name: Antonio	Guz Zip (Code:		
Coordinator: Firs Titl Address: 2800 I Email: Karen.Gu	st Name: e: JS Highw Iz@saws Planning (Karen Vice Pr Conser vay 281 N .org Group: L	resident, rvation N		La San	ast Name: Antonio	Guz Zip (Code:		
Coordinator: Firs Titl Address: 2800 I Email: Karen.Gu Regional Water F	st Name: e: JS Highw Iz@saws Planning C Inservation	Karen Vice Pr Conser vay 281 N s.org Group: L n District:	resident, rvation N		La San	ast Name: Antonio	Guz Zip (Code:		

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Check all that apply:

Received financial assistance of \$500,000 or more from TWDB

- Have 3,300 or more retail connections
- Have a surface water right with TCEQ

SYSTEM DATA

1. For this reporting period, select the category(s) used to classify customer water usage:

Retail Customer Water Usage		Retail Customers Categories*		
	Categories	Residential Single Family		
	Residential - Single Family	Residential Multi-Family		
	Decidential Multi family	Industrial		
\checkmark	Residential - Multi-family	Commercial		
\checkmark	Industrial	Institutional		
\checkmark	Commercial	Agricultural		
	Institutional	*Recommended Customer Categories for classifying customer water use. For definitions, refer to <u>Guidance</u>		
	Agricultural	and Methodology on Water Conservation and Water Use.		

2. For this reporting period, enter the number of connections for and the gallons of metered retail water used by each category. If the Customer Category does not apply, enter zero or leave blank. These numbers should be the same as those reported on the Water Use Survey.

Retail Customer Category	Number of Connections	Gallons Metered
Residential - Single Family	575,371	38,409,217,730
Residential - Multi-family	246,051	12,174,611,879
Industrial	269	2,637,887,755
Commercial	53,457	16,186,220,358
Institutional	0	0
Agricultural	0	0
Total Retail Water Metered ¹	875,148	69,407,937,722



¹Residential + Industrial + Commercial + Institutional + Agricultural = Total Retail Water Metered

Water Use Accounting

	Total Gallons During the Reporting Period
1. Corrected Input Volume: The volume of treated water input to the distribution system from own production facilities. Same as line 13b of the Water Loss Audit for reporting periods >= 2015. Same as line 14 of the Water Loss Audit for reporting periods <= 2014.	69,255,628,034
 2. Corrected Treated Purchased Water Volume: The amount of treated purchased wholesale water transfered into the utility's distribution system from other water suppliers system. Same as line 14b of the Water Loss Audit for reporting periods >= 2015. Same as line 15 of the Water Loss Audit for reporting periods <= 2014. 	23,892,433,740
3. Corrected Treated Wholesale Water Sales Volume: The amount of treated wholesale water transfered out of the utility's distribution system, although it may be in the system for a brief time for conveyance reasons. Same as line 15b of the Water Loss Audit for reporting periods >= 2015. Same as line 16 of the Water Loss Audit for reporting periods <= 2014.	2,037,588,049
 4. Total System Input Volume: This is the sum of the corrected input volume plus corrected treated purchased water volume minus corrected treated wholesale water sales volume. Same as line 16 of the Water Loss Audit for reporting periods >= 2015. Same as line 17 of the Water Loss Audit for reporting periods <= 2014. Produced + Imported - Exported = Total System Input Volume 	91,110,473,725
5. Billed Metered: All retail water sold and metered. Same as line 17 of the Water Loss Audit for reporting periods >= 2015. Same as line 18 of the Water Loss Audit for reporting periods <= 2014.	69,407,937,722
 6. Other Authorized Consumption: Water that is authorized for other uses such as back flushing, line flushing, storage tank cleaning, fire department use, municipal government offices or municipal golf courses/parks. This water may be metered or unmetered. Same as lines 18, 19, and 20 of the Water Loss Audit for reporting periods >= 2015. Same as lines 19, 20, and 21 of the Water Loss Audit for reporting periods <= 2014. 	416,855,844
7. Total Authorized Consumption: All water that has been authorized for use. Same as Line 21 of the Water Loss Audit for reporting periods >= 2015. Same as line 22 of the Water Loss Audit for reporting periods <= 2014. Total Billed and Metered Retail Water + Other Authorized Consumption = Total Authorized Consumption	69,824,793,566

Texas Water Development Board

 8. Total Apparent Losses: Water that has been consumed but not properly measured or billed (losses due to customer meter inaccuracy, systematic data handling discrepancy and/or unauthorized consumption such as theft). Same as line 27 of the Water Loss Audit for reporting periods >= 2015. Same as line 28 of the Water Loss Audit for reporting periods <= 2014. 	1,763,528,213
 9. Total Real Loss: Physical losses from the distribution system prior to reaching the customer destination (losses due to reported breaks and leaks, physical losses from the system or mains and/or storage overflow). Same as line 30 of the Water Loss Audit for reporting periods >= 2015. Same as line 31 of the Water Loss Audit for reporting periods <= 2014. 	19,522,151,946
10. Total Water Loss: Apparent + Real = Total Water Loss	21,285,680,159

Programs and Activities

1.	What year did your entity adopt or revise their most recent Water Conservation Plan?	2019
	Plan	

- 2. Does The Plan incorporate Best Management Practices? Yes O No
- 3. Using the table below select the types of Best Management Practices or water conservation and reuse strategies actively administered during this reporting period and estimate the savings incurred in implementing water conservation and reuse activities and programs. Leave fields blank if unknown. **Please separate reuse volumes from gallons saved.**

Methods and techniques for determining gallons saved are unique to each utility as they conduct internal cost analyses and long-term financial planning. Texas Best Management Practice can be found at TWDB's Water Conservation Best Management Practices <u>webpage</u>. The <u>Alliance for</u> <u>Efficiency Water Conservation Tracking Tool</u> may offer guidance on determining and calculating savings for individual BMPs.

Best Management Practice	Check if Implemented	Estimated Gallons Saved	Estimated Gallons Reused
Conservation Analysis and Planning			
Conservation Coordinator	\checkmark	0	0
Cost Effective Analysis	\checkmark	0	0
Water Survey for Single Family and Multi-family Customers	\checkmark	0	0
Customer Characterization	\checkmark	0	0
Financial			
Wholesale Agency Assistance Programs			
Water Conservation Pricing	\checkmark	0	0
System Operations			
Metering New Connections and Retrofitting Existing Connections	\checkmark	0	0



Utility Water Audit and Water Loss	\checkmark	0	(
Landscaping			
Landscape Irrigation Conservation and Incentives	✓	0	
Athletic Fields Conservation	\checkmark	0	
Golf Course Conservation	\checkmark	0	
Park Conservation	\checkmark	0	
Residential Landscape Irrigation Evaluation	\checkmark	34,734,348	(
Outdoor Watering Schedule	\checkmark	0	(
Education and Public Awareness			
School Education	\checkmark	0	(
Public Information	\checkmark	0	(
Public Outreach and Education	\checkmark	0	(
Partnerships with Nonprofit Organizations	✓	0	(
Rebate, Retrofit, and Incentive Programs			
Conservation Programs for ICI Accounts	\checkmark	4,191,288	(
Residential Clothes Washer Incentive Program	\checkmark	0	(
Water Wise Landscape Design and Conversion Programs	\checkmark	7,689,720	(
Showerhead, Aerator, and Toilet Flapper Retrofit	\checkmark	0	(
Residential Toilet Replacement Programs	\checkmark	0	(
Custom Conservation Rebates	\checkmark	5,276,313	(
Plumbing Assistance for Economically Disadvantaged Customers	\checkmark	13,278,060	(
Conservation Technology & Reuse			
New Construction Graywater	\checkmark	0	(
Rainwater Harvesting and Condensate Reuse	\checkmark	0	(
Water Reuse BMP Categories			
Reuse for On-site Irrigation	\checkmark	0	1,594,043,867
Reuse for Plant Washdown	\checkmark	0	(
Reuse for Chlorination/Dechlorination			
Reuse for Industry	\checkmark	0	1,475,966,543
Reuse for Agriculture	\checkmark	0	(
Regulatory and Enforcement			
Prohibition on Wasting Water	✓	340,668,000	(
Conservation Ordinance Planning and Development	\checkmark	811,837,200	(
Enforcement of Irrigation Standards	\checkmark	0	(
Retail			
Other	\checkmark	612,264,977	(
Tota	ls	1,829,939,906	3,070,010,410



The attached PDF includes more information about programs and savings, including the reason some BMP's show a savings estimate of zero. Other programs with savings considered are monthly WaterSmart Home Reports, Flow Sensor Rebates, Smart Irrigation Controller Program, and Pool Filters.

Attached file(s):	
File Name	File Description
2023_BMPs.pdf	SAWS 2023 BMPs

4. For this reporting period, estimate the savings from water conservation activities and programs.

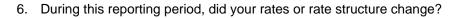
Gallons Saved/Conserved			Dollar Value of Water Saved ²	
1,829,939,906	3,070,010,410	4,899,950,316	40,473,590	

¹Estimated Gallons Saved + Estimated Gallons Recycled/Reused = Total Volume Saved

²Estimated this value by taking into account water savings, the cost of treatment or purchase of water, and deferred capital cost due to conservation.

5. Comments or Explanations Regarding Data Entered in Sections Above. Files to support or explain this may be attached below.

Dollar value of saved is calculated based on the retail price of water from line 40 of the water loss audit report (\$0.00826).





🔘 Yes 🛛 💿 No

Select the type of rate pricing structure used. Check all that apply.

		Uniform Rates
		Flat Rates
١	/	Inclining/Inverted Block Rates
		Declining Block Rates
		Seasonal Rates
		Water Budget Based Rates
		Excess Use Rates
		Drought Demand Rates
		Tailored Rates
		Surcharge - usage demand
		Surcharge - seasonal
١	/	Surcharge - drought
١	/	Other

Non-compliance surcharge for the Annual Irrigation System Evaluation. Customers who are not in compliance are assessed a one time late fee and an additional volumetric rate on billed irrigation water until they become compliant.



7. For this reporting period, select the public awareness or educational activities used.

Name	Implemented This Year	Number Of Times This Year	Total Population Reached this Year
Brochures Distributed	\checkmark	710	241,049
Messages Provided on Utility Bills	\checkmark	12	6,904,452
Press Releases	\checkmark	21	5,000,000
TV Public Service Announcements			
Radio Public Service Announcements	\checkmark	530	2,586,500
Educational School Programs	\checkmark	180	12,130
Displays, Exhibits, and Presentations	\checkmark	465	220,722
Community Events	\checkmark	245	20,307
Social Media campaign - Facebook	\checkmark	247	725,000
Social Media campaign - Twitter	\checkmark	161	175,000
Social Media campaign - Instagram	\checkmark	93	230,000
Social Media campaign - YouTube	\checkmark	4	1,000,000
Facility Tours	\checkmark	76	3,649
Other	\checkmark	65	2,861,706
Total		2,809	19,980,515

Other campaigns include GardenStyleSA website, weekly gardening newsletter, Conservation Call Center, NextDoor social media, and digital display banners.

Leak Detection and Water Loss

- During this reporting period, how many leaks were repaired in the system or at service connections?
 8467
- 2. Select the main cause(s) of water loss in your system.

	Water Loss Causes
\checkmark	Distribution line leaks and breaks
	Unauthorized use and theft



\checkmark	Master meter problems					
		Customer meter problems				
		Record and data problems				
\checkmark		Other				

SAWS continues to identify and address water loss on an on-going basis with cost-effective solutions. In 2023, SAWS experienced a surge in main breaks due to drought conditions. In addition, staffing challenges include increasing the number of repair crews and managing repair crews so as to protect employees from heat related risks has increased total repair time per leak resulting in increased real losses. However, in 2023 SAWS did increase the number of repair crews through contractors and was able to bring the backlog of leaks down significantly. SAWS continues to conduct proactive leak detection and maintain increased crew numbers to address leaks quickly.

3. For this reporting period, provide the following information on your distribution lines.

Total Length of Main Lines (miles)	Total Length Repaired (feet)	Total Length Replaced (feet)		
7776	1784111	70551		

4. For this reporting period, provide the following information regarding your meters:

Type of Meter	Total Number	Total Tested	Total Repaired	Total Replaced
Production Meters	645	524	125	15
Meters larger than 1 1/2 inches	9570	1644	24	509
Meters 1 1/2 inches or smaller	591006	2270	37	57837

5. Does your system have automated meter reading?

💽 Yes 🛛 No



Program Effectiveness

1. Program Effectiveness

In your opinion, how would you rank the overall effectiveness of your conservation programs and activities?

Customer Classification	Less Than Effective	Somewhat Effective	Highly Effective	Does Not Apply
Residential Customers	\bigcirc	\bigcirc	\overline{ullet}	\bigcirc
Industrial Customers	\bigcirc	\bigcirc	$\overline{\mathbf{O}}$	\bigcirc
Institutional Customers	\bigcirc	\bigcirc	\bigcirc	\bullet
Commercial Customers	\bigcirc	\bigcirc	$\overline{\mathbf{O}}$	\bigcirc
Agricultural Customers	\bigcirc	\bigcirc	\bigcirc	\odot

- 2. During the reporting period, did you implement your Drought Contingency Plan? Yes No
- 3. Select the areas for which you would like to receive more technical assistance:

		Technical Assistance Areas
		Best Management Practices
		Drought Contingency Plans
		Landscape Irrigation
		Leak Detection and Equipment
		Rainwater Harvesting
		Rate Structures
		Educational Resources
		Water Conservation Annual Reports
		Water Conservation Plans
		Water IQ: Know Your Water
		Water Loss Audits
		Recycling and Reuse



Water Loss, Target and Goals

Total, Residential and Water Loss Gallons Per Capita per Day (GPCD) and Water Loss Percentage

The tables below display your current GPCD totals and water loss percentage for your service area.

Total System Input in Gallons Water Produced + Wholesale Imported - Wholesale Exported	Retail Population ¹	Total GPCD (System Input / Retail Population) / 365
91,110,473,725	2,085,931	120

¹Retail Population is the total permanent population of the service area, including single family, multi-family, and group quarter populations

Residential Use in Gallons (Single Family + Multi-family)	Residential Population ²	Residential GPCD (Residential Use / Residential Population) / 365
50,583,829,609	2,085,931	66

²Residential Population is the total residential population of the service area, including only single family and multi-family populations

Total Water Loss in Gallons Apparent + Real = Total Water Loss	Retail Population	Water Loss GPCD ³	Water Loss Percent	
21,285,680,159	2,085,931	28	23.36%	

³(Total Water Loss / Residential Population) / 365 = Water Loss GPCD (Total Water Loss / Total System Input) * 100 = Water Loss Percentage

The table below displays the specific and quantified five-year and ten-year goals listed in your current Water Conservation Plan alongside the current GPCD and water loss totals.

Achieve Date	Target for Total GPCD	Current Total GPCD	Target for Residential GPCD	Current Residential GPCD	Target for Water Loss GPCD	Current Water Loss GPCD	Target for Water Loss Percentage	Current Water Loss Percentage
Five-year Target Date 2024	112	120	73	66	15	28	13.39 %	23.36 %
Ten-year Target Date 2029	107	120	70	66	13	28	12.15 %	23.36 %

-	Implemented?	Estimated Gallons Saved	Estimated Gallons Reused	Notes
Conservation Analysis and Planning		Javeu	Guilding Neused	
Conservation Coordinator	Y		Co	nservation Department - Director of Operations
Cost Effective Analysis	Y			iter savings from a cost effective analysis would be inherently present in the other categories when the alysis is performed
Water Survey for Single Family and Multi-family Customers	Y			sidential and Commercial Consults
Customer Characterization	Y			ICS coding of over 43,000 ICI accounts
Financial				
Wholesale Agency Assistance Programs	N			
Vater Conservation Pricing	Y		0	nservation is promoted through use of an Inverted Block Rate Structure
ystem Operations				iservation is promoted through use of an inverted block hate structure
Aetering New Connections and Retrofitting Existing Connections	Y		All	custromer classes are metered and old/broken meters are replaced
ystem Water Audit and Loss Control	Y			e conduct a water loss audit annually as required by TWDB
andscaping			VVe	
				attaile ta discussione un des attais DAADa
andscape Irrigation Conservation and Incentives	Y Y			e attributed savings under other BMPs
hletic Fields Conservation				dinance for athletic fields to apply for variances. Some athletic fields utilize reuse water.
olf Course Conservation	Y			dinance for golf courses to apply for variances. All municipal golf courses utilize reuse water.
rk Conservation	Y			iny parks are part of the large property irrigation checkup, so savings are attributed under the Conservation grams for ICI Accounts
esidential Landscape Irrigation Evaluation	Y	34,734,348	Re	sidential irrigation consultations
utdoor Watering Schedule	Y			itering never allowed 11am-7pm in our service area
ducation and Public Awareness				
hool Education	γ			savings attributed to this practice, education department presents to schools throughout the community, ar-round
ublic Information	Y		No	savings attributed to this practice, Conservation staff presented to 2,554 attendees at staff presentations
ublic Outreach and Education	Y			
artnerships with Nonprofit Organizations	Y		No	savings attributed to this practice, Reached 228,747 through partnerships
bate, Retrofit, and Incentive Programs			-	
onservation Programs for ICI Accounts	Y	4,191,288	Co	mbination of commercial irrigation design rebates and commercial consults
sidential Clothes Washer Incentive Program	Ŷ	.,,		shright programs concluded in 2012. 25,000-30,000 washing machines were replaced through SAWS efforts
ater Wise Landscape Design and Conversion Programs	Y	7,689,720	60	mbination of Landscape coupons and residential irrigation design rebates
owerhead, Aerator, and Toilet Flapper Retrofit	Y	1,005,120		powerhead and Aerator distribution programs ended in 2018
owerneau, Aerator, and rollet riapper Retrollt	T			let programs concluded in 2014. 250,000-300,000 toilets were distributed through SAWS Residential and
sidential Toilet Replacement Programs	Y		Co	mmercial Programs.
ustom Conservation Rebates	Y	5,276,313	Tw	o custom rebates were completed in 2023, savings dependant on type and scale of project
umbing Assistance for Economically Disadvantaged Customers	Y	13,278,060	Plu	mbers to People and Conservation Makeover programs to assist low income customers with plumbing repair
Conservation Technology & Reuse				
ew Construction Graywater	Y		Co	mmercial sites are required to be plumbed for future use
ainwater Harvesting and Condensate Reuse	Y		Cu	rrently offering rebates on rain barrels, although we do not attribute savings to this practice
/ater Reuse BMP Categories				
euse for On-Site Irrigation	Y		1,594,043,867 Ap	proximately 27% of reuse water used for landscape irrigation
euse for Plant Washdown	Y			
use for Chlorination/Dechlorination	N			
use for Industry	Y		1 4/5 966 543	proximately 25% of reuse water used for industrial purposes, remaining 47% of reuse water for other rposes
euse for Agriculture	Y		F.	
egulatory and Enforcement				
ohibition on Wasting Water	Y	340,668,000		vings from 9,463 WaterWaste Citations, additionally, there were 6,386 warnings (no savings estimated from rnings)
onservation Ordinance Planning and Development	Y	811,837,200		rings) rings attributed to Annual Large Property Irrigation Check-Ups
onservation orunnance Flamming and Development	T	011,037,200		angs attributed to Annual Large Property Irrigation Check-Ups Antonio enforces irrigation standards including requiring permits for irrigation systems but does not
	Y			i Antonio enforces irrigation standards including requiring permits for irrigation systems but does not ribute savings directly to this practice
etail				
inforcement of Irrigation Standards Retail JTHER (sum of entries shown below) WaterSmart Home Reports Program	Y	612,264,977	(a)	vings based on results of random control trial nilot program, aggregate of print and email water report savings
etail JTHER (sum of entries shown below) WaterSmart Home Reports Program	Y	609,877,600		rings based on results of random control trial pilot program, aggregate of print and email water report savings
etail THER (sum of entries shown below) WaterSmart Home Reports Program Flow Sensor Rebate Program	Y Y	609,877,600 152,400	Sav	rings based on random control trial pilot program
etail THER (sum of entries shown below) WaterSmart Home Reports Program	Y	609,877,600	Sav	

Nama	Number of	Total Population	Notos
Name	Times this Year	Reached this Year	Notes
Brochures Distributed	710	241,049	Brochures are distributed at community events, exhibts, presentations, and more
Messages Provided on Utility Bills	12	6,904,452	Conservation note in all bill inserts, population based on number of SFR connections over 12 months
			Local distribution of press releases, some are picked up regionally and nationally, difficult to quantify the reach.
Press Releases	21	5,000,000	25 press releases sent to contacts that share the information, reaching entirety of population multiple times.
			Estimate of 5 million reach is conservative.
TV Public Service Announcements			
Radio Public Service Announcements	530	2,586,500	Messages aired on Texas Public Radio (KSTX-FM and KPAC-FM), Population reached is the total web
	220	2,580,500	impressions for the year
Educational School Programs	180	12,130	Includes classroom presentations, teacher training, career days, and intern program
Displays, Exhibits, and Presentations	465	220,722	
Community Events	245	20,307	
Social Media campaign - Facebook	247	725,000	
Social Media campaign - Twitter	161	175,000	
Social Media campaign - Instagram	93	230,000	
Social Media campaign - YouTube	4	1,000,000	
Facility Tours	76	3,649	Facility tours include field education opportunities and field trips
OTHER (sum of entries shown below)	65	2,861,706	
Social Media campaign - NextDoor	13	210,000	
TPR Digital Display Banners		557,000	Graphic display banners present on TPR.org
GardenStyle weekly gardening newsletter	52	1,805,358	Newsletter is sent weekly to subscribers (average of 35,399 subscribers/week, max of 36,093)
GardenStyleSA.com + Plant Database		267,932	267,932 users, 1,480,644 site visits, 1:57 average time onsite
Conservation Call Center		21,416	Average call is handled within 4:12
TOTAL	2,809	20,190,515	