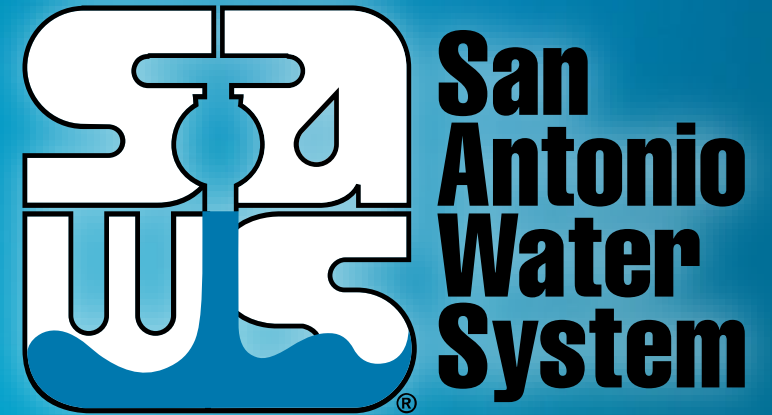


Drought Management Improvement Plan

Nathan Riggs

Project Coordinator (Drought Enforcement) - Conservation



MAKING SAN ANTONIO
WATERFUL 

SAWS Serves A Large & Diverse Community

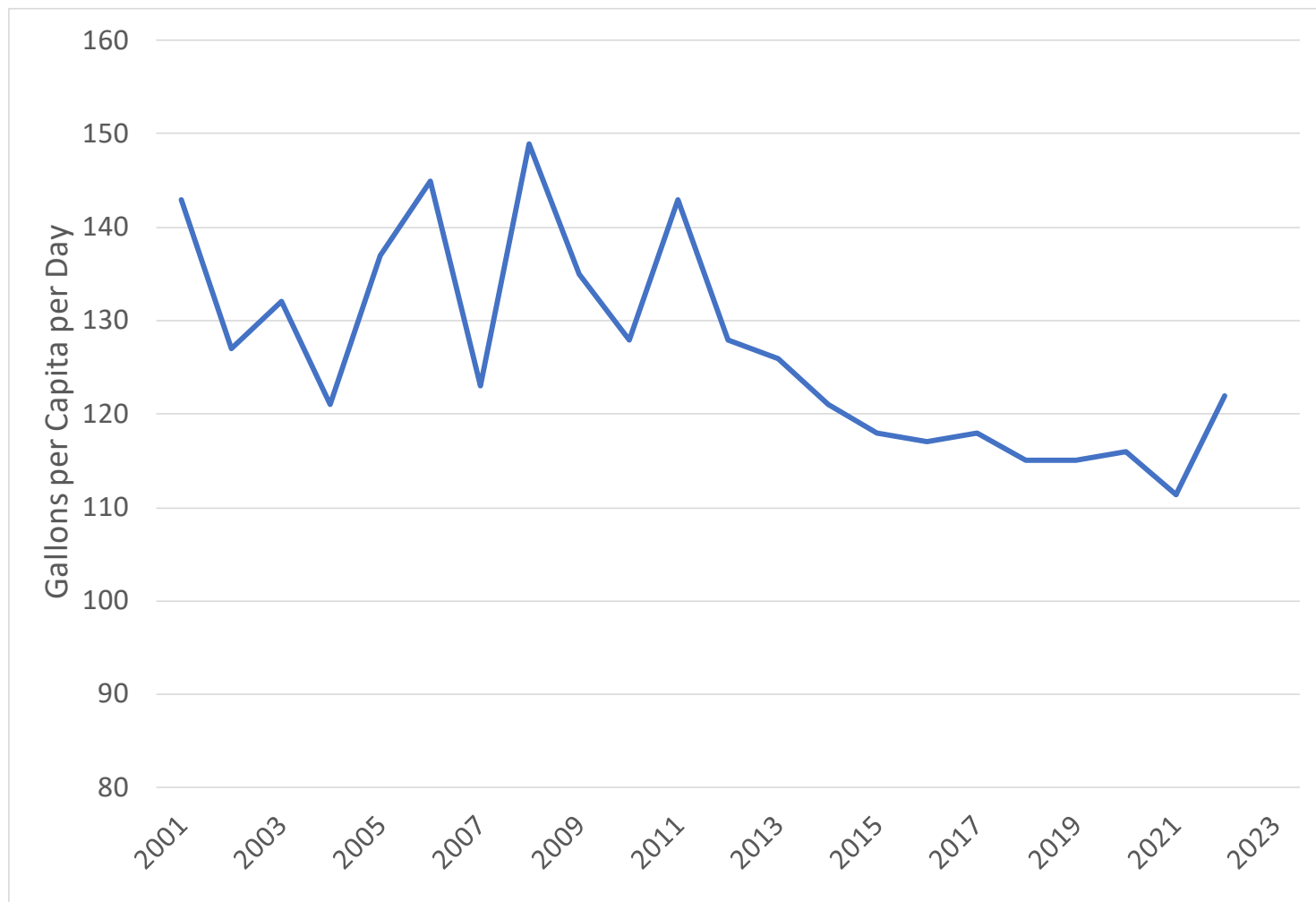
Conservation of water has always been a key management tool

- All SAWS water customers have the benefit of Conservation Rebates, Education & Incentives
- Irrigation Consultation services are particularly popular with customers in Suburban Cities
- New electronic meters will be available to all SAWS customers within a few years; helping people manage water better

Challenges We Can Resolve

- We are water secure but are not saving as much today from drought watering rules as we did in the past ten years
- Excess use during drought by a small percentage of customers challenges our water plans
- Updates to how we enforce drought rules can make management of drought more fair, effective and efficient

Recent Trends A Cause for Concern



- 9.7 billion gallons more than expected was needed to meet customer needs
- Biggest GPCD increase in 10 years
- Trend continued in 2023
- This will be costly if not addressed

Drought Enforcement Outcomes

Good News

- Over 90% following the rules
- Usage drops 3,000 gallons/month post citation at single family homes
- We can see weekend drops in production and even aquifer recovery from this

Challenges

- Where we can't enforce, usage is high
- Commercial irrigation sites not dropping usage post citations
- Repeat violators not impacted by citation
- Citation cost unchanged in 20 years
- Extreme usage in some areas poses operational challenges and costs
- Current criminal process is not best enforcement option going forward

Key Questions

Effective, Fair and Efficient

- How to ensure all SAWS customers are equally subject to same rules regardless of where they live?
- How to increase savings while minimizing impact of rules on majority who are being frugal and following the rules?
- How to influence the commercial irrigation sites violating?
- How do we improve the workmanship of new irrigation systems so they do not waste water?

Many Utilities Use A Rule & Bill Fee to Enforce

How is this accomplished

1. SAWS Board can adopt a rule for service in Utility Service Regulations making it clear that all customers must follow drought rules
2. City of San Antonio can pass a city ordinance that approves a fee or rate associated with non-compliance

Most of Process Would Remain the Same

- SAWS would continue to do enforcement education & monitoring
- SAWS would continue to document apparent violations with photographs & detailed notes by trained personnel
- SAWS would continue to communicate with customers about apparent violations
- **Customers would follow up with SAWS to resolve the violation challenge**
 - No Municipal Court documentation for SAWS
 - No Municipal Court processes
 - No criminal violation record
 - No wait by customer for court communication

Advantages of Utility Service Regulation Option

- Shift Away From Criminal Process for Enforcement
- Applies equally to ALL SAWS customers including those who live in separately incorporated cities or outside the ETJ
- Fees On Bill Can Be More Logical Than Municipal Citation
 - Can have fees reflect repeat violations
 - Can have fees adjust in deeper stages of drought
 - Can have fees adjust for usage of large commercial irrigation
 - Offer Water Education Class to waive fee for first violation for single family customers

Other Growing Concerns

1. Drip Irrigation Accounts for More & More Usage
2. Developers and Home Builders not installing irrigation systems per Texas required standards; wasting water as a result
3. During Extreme Droughts Need New Tool to Discourage High Lawn Watering Usage

Drip Irrigation: Uses As Per Hour Much As Spray

- Currently customers with drip may run it every day during drought stages
- Increasing levels of drip are being installed under turf; and operated daily
- We see a lot of over-scheduled drip at homes and businesses where xeric plantings are in place
- There is no logical reason to use more water on plants watered with drip irrigation

What are typical precipitation rates?

- | | |
|-------------------|-------------------|
| • Pop up spray | 1.5 inches/hour |
| • Rotor spray | .4-.6 inches/hour |
| • 12" space drip* | 1.44 inches/hour |
| • 18" space drip* | .64 inches/hour |

*Based on most commonly sold product which puts out .9 GPH

What Can We Do?

- Drip should be operated on the same rules as spray irrigation

Variance Process Can Resolve Concerns:

1. Large property variance available for big sites with lower precipitation sites (same for rotor spray large sites)
2. Variance on tree bubblers for grow in (only dedicated bubbler zones)
3. Vegetable garden variance

Green Grass During Drought Takes A LOT of Water; Drip or Spray



Summer 2023 Photo

New Home Irrigation System Efficiency

- SAWS can augment the current City of San Antonio permit process to ensure existing efficiency regulations are followed
- Irrigation that is poorly designed and has poor workmanship will use 20% more water every summer; making drought challenges worse

Stage One and Two: Update Watering Hours

- Current Stage 1 Hours: Before 11am and after 7pm
- Proposed Stage 1 Hours: Before 10am and after 9pm

- Current Stage 2 Hours: 7-11am/pm
- Proposed new Stage 2 hours for irrigation systems
 - 5-10am and 9pm-12am.
 - Variance for hose-end sprinkler users for 7-10pm.
- WHY: Reduce high demand on the energy grid in evenings

Stage Three: Change Focus to Highest Users Only

- Current City of San Antonio Stage Three (t) would penalize ALL citizens; particularly those who are already using modest amounts of water
- A different Stage Three High Use Surcharge would impact only the highest discretionary water users
 - Higher charges on very high usage during more rare and severe droughts would help
 - Usage level and rate being analyzed with rate consultant

Outreach Efforts on Proposals

- www.Wateringrules.com website established to centralize information
- 69 presentations to approximately 1,055 people and more than 47 different groups
- Survey on main proposals on website
- Draft ordinance and USR documents on site
- Added more information in response to questions
- Notified all who completed survey of site updates

Survey Results to Date

Ensure conservation ordinance rules fairly apply to all SAWS customers, even those in separately incorporated cities, by changing the enforcement from a Municipal Court citation to a fee on the bill.

Strongly support	Somewhat support	Moderately support	Slightly support	Do not support at all
194	48	34	27	92

In Stage 3, a new high use surcharge applying only to top users would replace the current rule limiting all customers to watering every other week. The surcharge would apply at a set threshold and encourage the highest users to conserve water during very severe droughts. The exact threshold is currently under analysis, but is estimated to be around 18,000 gallons per month. In 2023, this was approximately the highest 5% of water users. A typical bill at this volume is about \$200 per month.

Strongly support	Somewhat support	Moderately support	Slightly support	Do not support at all
178	49	37	32	99

Limit drip irrigation to the same schedule as spray irrigation during drought. Drip irrigation systems can use as much water as traditional in-ground irrigation systems. Properties with drip irrigation are often using a lot of water during drought not realizing it applies water at a similar rate to spray and therefore does not need longer or more frequent operation times. A drip variance is proposed to allow additional watering for vegetable gardens.

Strongly support	Somewhat support	Moderately support	Slightly support	Do not support at all
170	56	40	28	101

Improve the workmanship of new irrigation systems by enhancing the enforcement of existing state and local irrigation standards on newly installed irrigation systems.

Strongly support	Somewhat support	Moderately support	Slightly support	Do not support at all
250	54	40	15	36

Change the watering hours to 5-10 a.m. and 9 p.m. to midnight to help reduce high demand on the energy grid in the evening. Customers could apply for a variance to water 7-9 p.m. with a hose-end sprinkler if no irrigation system is present.

Strongly support	Somewhat support	Moderately support	Slightly support	Do not support at all
202	58	39	25	71

What Exactly Is Needed For New Enforcement Plan?

- Update Utility Service Regulations for SAWS to clarify drought rules and consequences
- Approval of one-time non-compliance fees for violations of drought rules
- Approval of a new Stage Three High Use Surcharge rate
- Irrigation plan review and inspection process to be completed by SAWS

Getting Ready for Summer 2024

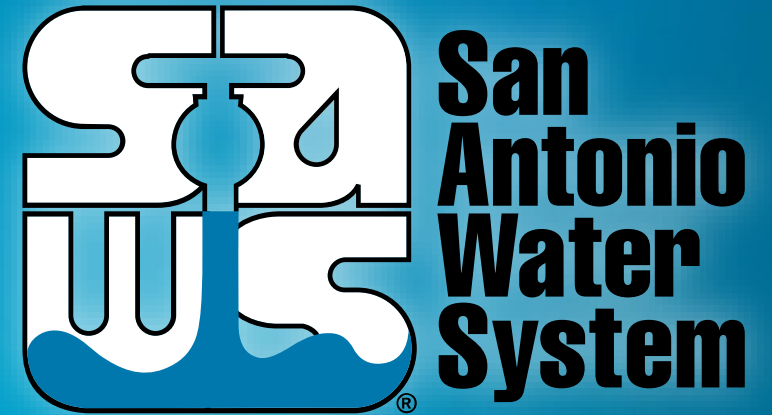
- Draft updates to Utility Service Regulations & Draft Ordinance updates available for public comment
- Rate specialist working on appropriate fees and Stage three surcharge
- **Goal:** Achieve SAWS Board approval and City of San Antonio ordinance change before next summer



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