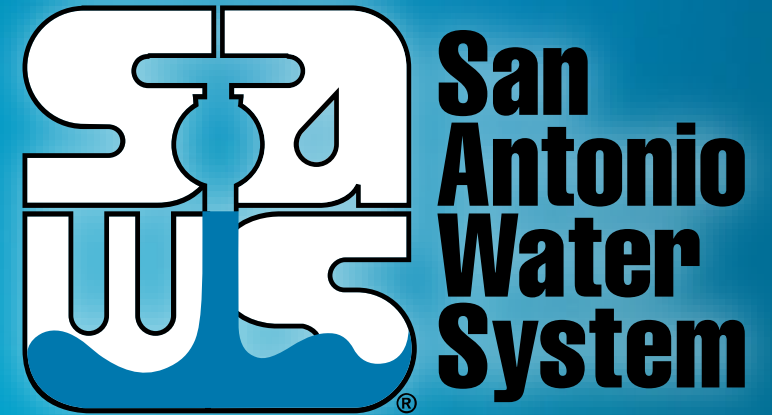


# Drought Plan Updates

Karen Guz

Vice President – Conservation

San Antonio City Council  
June 20, 2024



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**WATERFUL**



# Why Update Our Drought Plan?

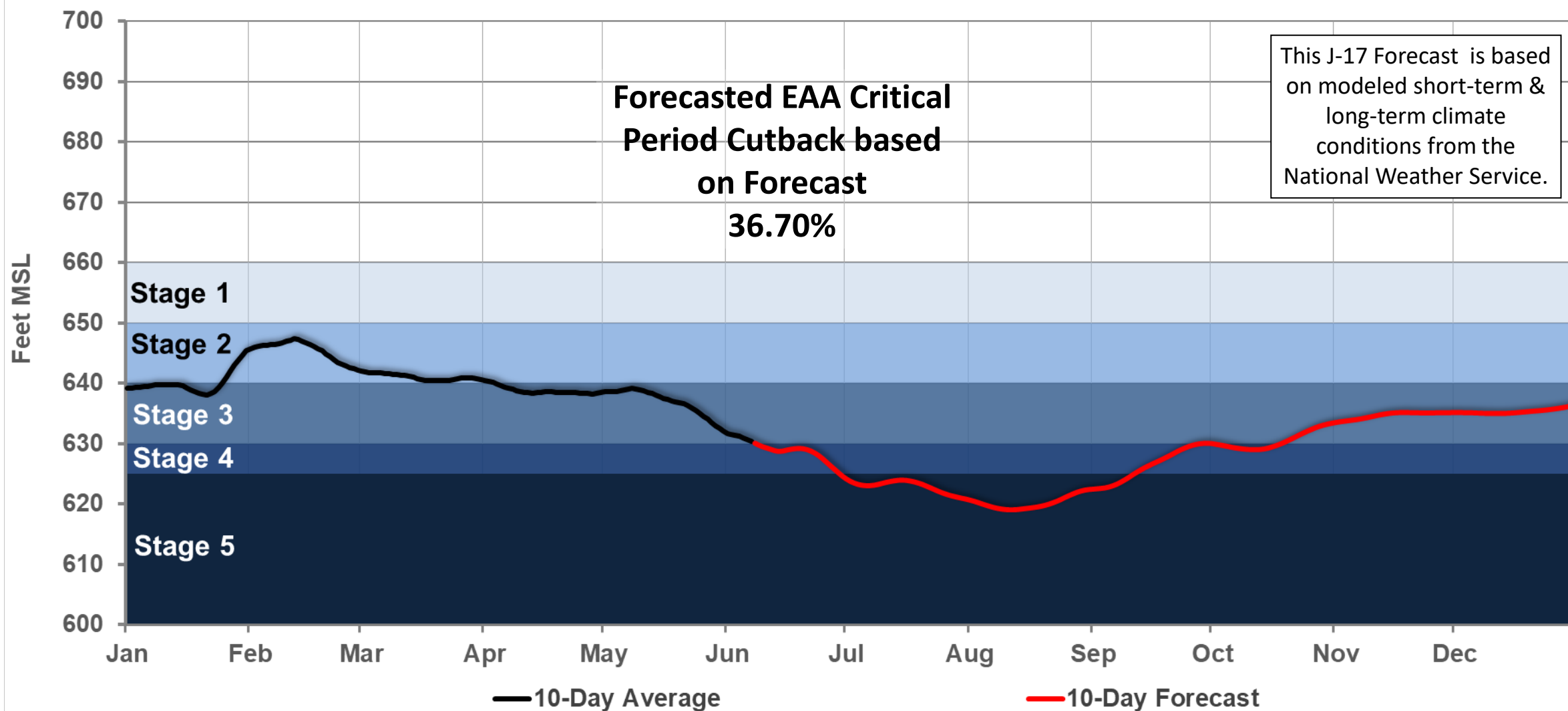
During 2022 and 2023 SAWS did not meet 10% reduction goal from watering rules critical to Water Management Plan

**Good Trends:** 90% of customers follow the rules and the average home used under 8,000 gallons/month last summer

## Solutions:

- We need improved savings from about 10% of SAWS customers
- We need to improve new irrigation systems

# 2024 Is 5<sup>th</sup> Year of Drought







# Proposed Drought Rule Changes

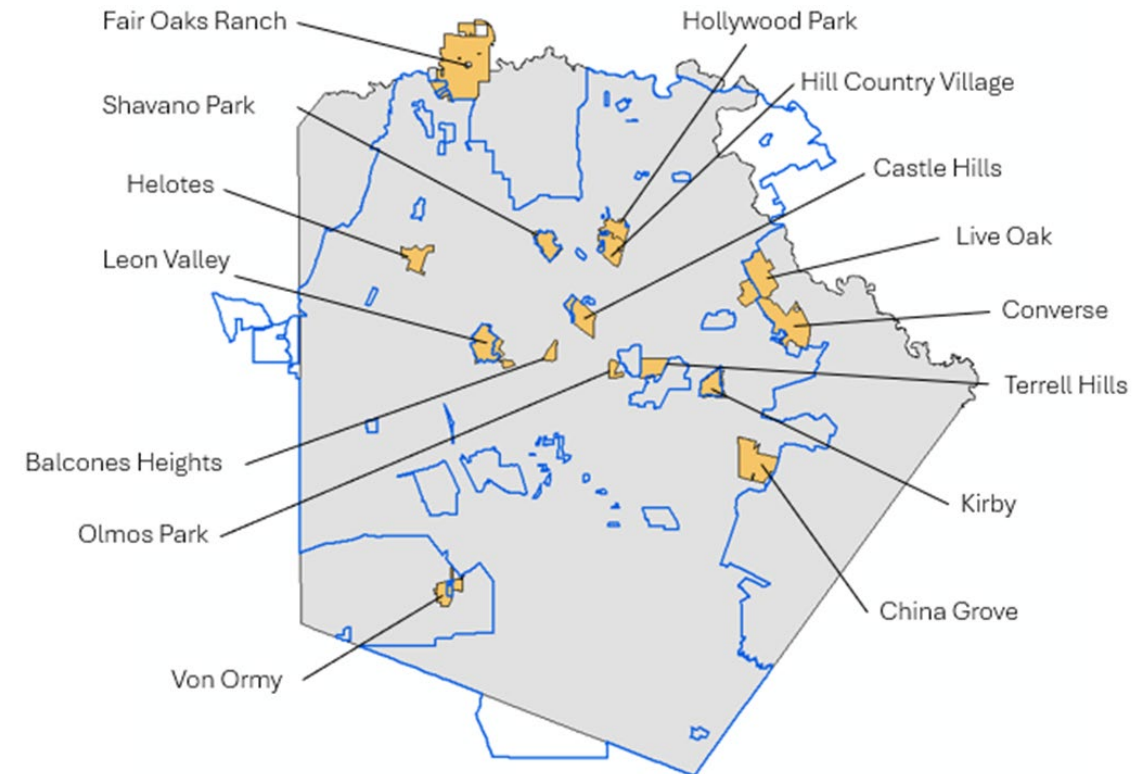
1. Non-Compliance Charge
2. Drought Surcharge
3. Drip Irrigation
4. Irrigation Inspections
5. Watering Times

# Improve Compliance With Once/Week Rules

## Objectives

1. Ensure all SAWS customers are subject to the same rules.
2. Have the same enforcement mechanism for all customers.
3. Structure non-compliance charges to increase for repeat violations.
4. Structure non-compliance charges to be higher to influence very large landscape irrigation customers.

Customers not subject to current enforcement



# How? Change from Citation to Non-Compliance Charges

Enforcement model the same for all SAWS customers regardless of location

1. Update SAWS' Utility Service Regulations to align to Code changes authorized by City Council
2. Establish fee structure for one-time violation charges to go on SAWS bills; alternative to current criminal charges
  - Base violation charges to recover cost of enforcement
  - Establish easy access to violation information for customers
  - Appoint a Dispute Resolution Committee of **NON-SAWS EMPLOYEES** to review disputed violation cases no longer going to court



# Logical Charges; Address Large Use/Repeat Violations

Current Citation Cost at Court is \$137

Level of Violation	Less than 1M gallons/year; nearly all single family and small commercial sites	Greater or equal to 1M gallons/year/site for large use irrigation
1 <sup>st</sup> Violation	\$137	\$500
2 <sup>nd</sup> Violation	\$225	\$625
3 <sup>rd</sup> Violation	\$500	\$1,250

**Note:** First time violations at single family customer accounts eligible to have 1<sup>st</sup> violation charge waived for taking an on-line “When to Water” course.

## Edwards Aquifer Cuts

Stage 1	20%
Stage 2	30%
Stage 3	35%
Stage 4	40%
Stage 5	44%

# Need More Savings in Severe Droughts



Our only next tool is current Stage 3



Current Stage 3 imposes twice/month watering on all SAWS Customers



Plants can survive but compliance is challenging



**Target audience: highest water users only**



# Proposed Stage 3 Savings from Top 5% Users

**Residential “top use” is over 20,000 gallons/month in peak month**

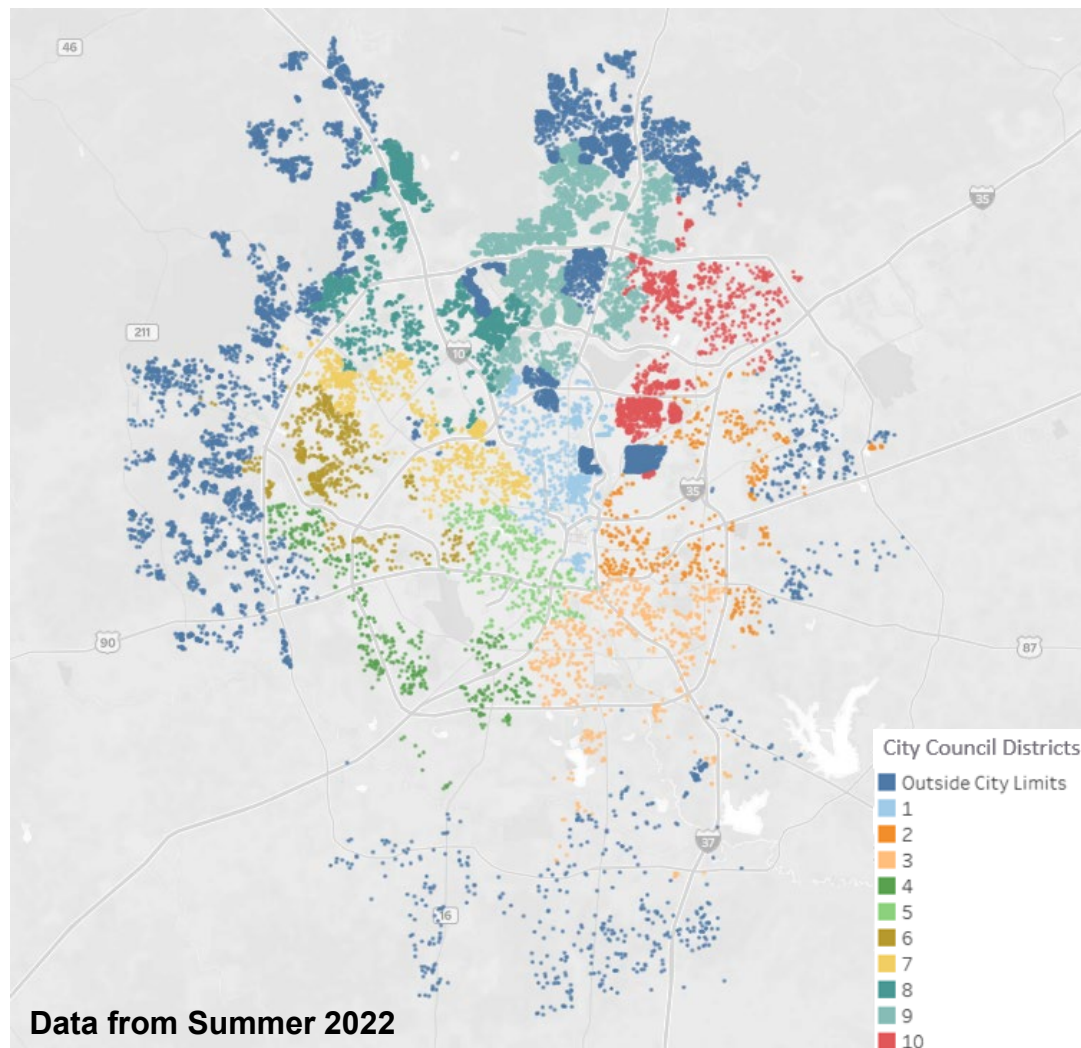
## High Use Surcharge

- Trigger with EAA Stage 3
- Push twice per month watering to Stage 4
- High use customers asked to reduce
- High use customers offered expert help reduce while retaining health of landscapes
- Incentive programs available to change high use landscapes

## Small Changes by Top Users Help!

- Top 5% of single-family customers may use about 20% of water sold to single family in summer months
- **Irrigation usage over thresholds is currently nearly 3 billion gallons/year**
- This amount will grow annually as our water customers grow

# 2022 High Use Accounts by City Council District



City Council District	Number of Residential Accts Using Over 20,000 gal/month	Percent of Homes Using Over 20,000 gal/month
Outside City Limits	8,723	6%
1	821	3%
2	466	1%
3	561	2%
4	441	1%
5	348	1%
6	634	2%
7	845	2%
8	2,792	10%
9	5,024	14%
10	1,560	4%

# Surcharge Residential Rate Table

Residential thresholds are the same for all households

Customer Class	Rate per 1,000 gallons	Meter Size	Stage 3 Threshold (gal/month)	Stage 4 Threshold (gal/month)
Residential	\$10.37	All Sizes	20,000	12,000

- Above average usage is found at all property sizes; not only large lots
- Indoor average in winter months is under 5,000 gallons per month. Even larger families do not use 20,000 per month inside.
- Existing leak adjustment policy available to pause surcharge while leak usage is being determined



# Surcharge Commercial Rate Table

Commercial thresholds will vary with meter sizes found at diverse properties

Customer Class	Rate per 1,000 gallons	Meter Size (inch)	Stage 3 Threshold (gal/month)	Stage 4 Threshold (gal/month)
Billed Commercial Irrigation	\$10.37	5/8"	12,000	7,200
		3/4"	18,000	10,800
		1"	30,000	18,000
		1.5"	60,000	36,000
		2"	96,000	57,600
		3"	210,000	126,000
		4"	360,000	216,000
		6"	810,000	486,000
		8"	1,080,000	648,000
		10"	1,440,000	864,000

# Issue: Drip Irrigation Unregulated During Drought

## Reasonable boundaries on drip needed

- Drip irrigation often run 5-7 days a week; applying more water than needed
- At many sites drip is in beds with watersaver plants needing less water
- Some investing in drip to avoid any drought cut-backs; striving to use more water instead of less

20% of sites we visit have drip irrigation





# Current Rules Incentivize High Flow/ High Use Drip

Good Drip Usage:

Xeric Plants Targeted Drip System



**Run Well: ½” to Root Zone Once Per Week**

Problem Drip Usage:

High Flow Drip Under Green Grass



**2-5” of Water/Week; Over Max 1” Recommended In Worst of Summer**



# New Drip Irrigation Proposal

Drip Still Has MUCH More flexibility than spray

Stage	Spray Irrigation	Drip Irrigation
Stage 1	1 day/week	3 days/week
Stage 2	1 day/week	2 days/week
Stage 3	1 day/week	2 days/week
Stage 4	Twice Per Month	1 day/week

## Some Details

- Limited to same times as spray in each stage
- Drip will have assigned days in each stage

Stage 1            Mon/Wed/Fri

Stage 2 & 3      Mon/Fri

Stage 4            Friday

# Implement Operational Inspection of New Irrigation

Poorly Designed and Installed Irrigation Wastes 20% of the Water Used

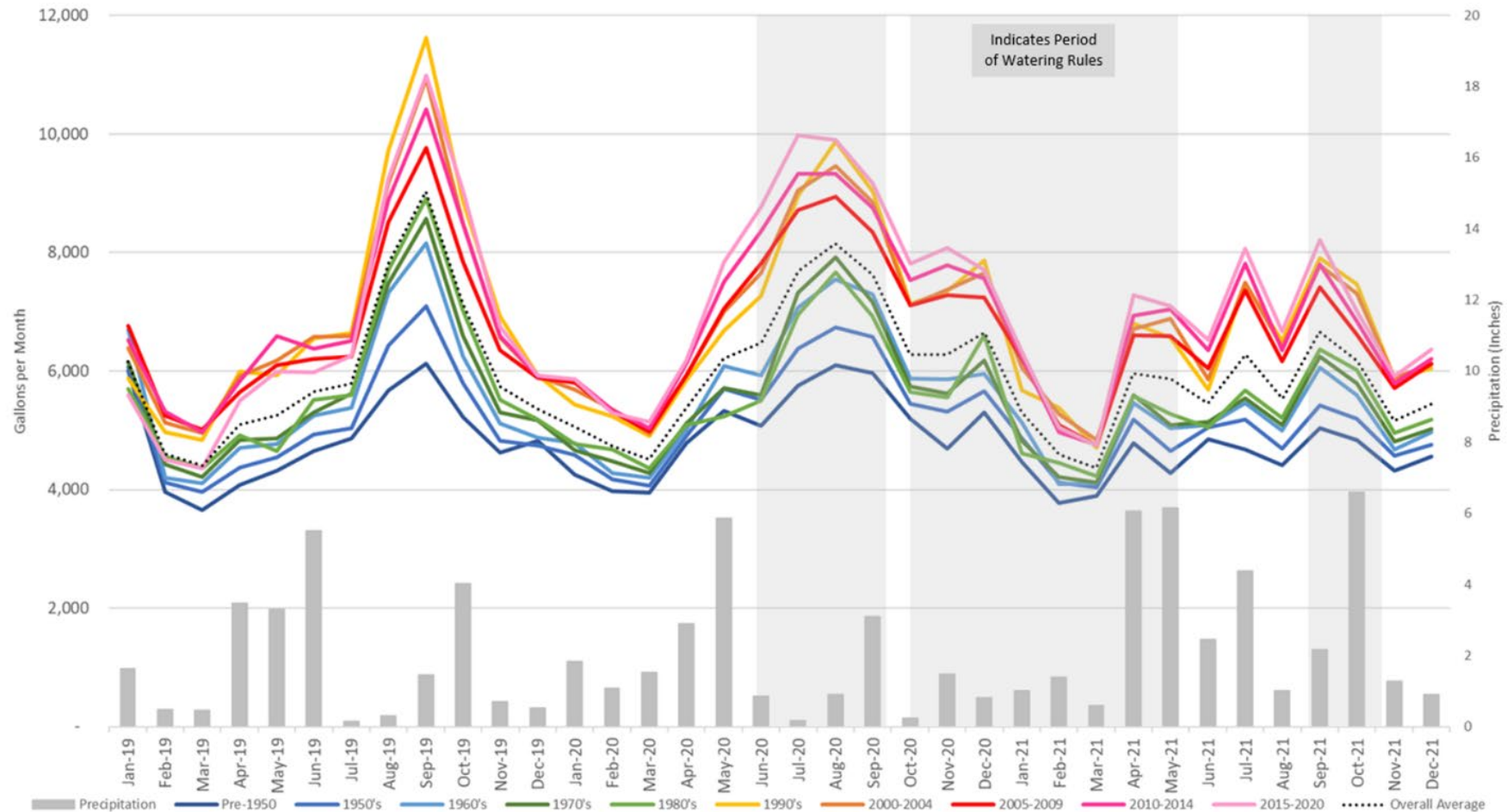
- **27% of violations in 2023 at new home builder accounts**
- Texas has strong license and irrigation quality standards
- Lack of plan review & operational inspection means they are not always followed
- **Savings at half the cost of new supplies**





# New Homes Use More Water Than Older Homes!

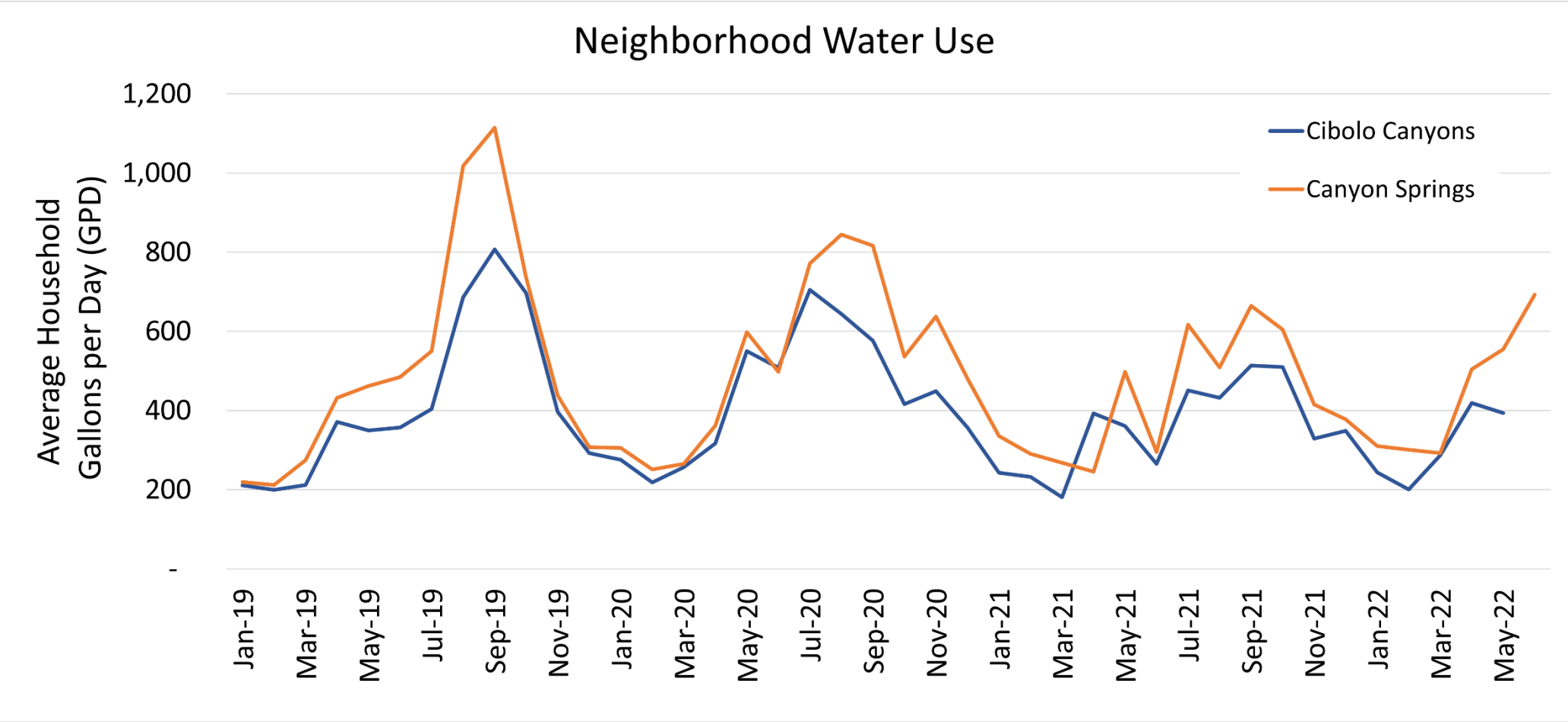
We can mitigate some of this by ensuring irrigation systems operate efficiently





# Irrigation System Quality Matters?

Natural experiment: one neighborhood regulated on irrigation other was not



# Phased-In Improvements for New Irrigation

## Starting January 1, 2025

- SAWS adds three new staff; already several Irrigation Inspectors
- Plan review begins for new irrigation
- Uploaded to SAWS system at time of request of meter set
- Review checklist based on TCEQ regulation guidelines & available to all
- Plan review will require 3-5 business days
- New owner gets benefit of as-built plan for all equipment & required warranty information

## Starting January 1, 2026

- SAWS adds six new staff; more licensed irrigators
- Operational inspection begins; turning on system in field to compare to plan
- Review checklist based on TCEQ guidelines & available to all
- After plan review and notification system is ready for inspection this will take up to 5 business days

# Update Watering Hours

- Current Stage 1 Hours: Before 11 a.m. and 7 p.m. to midnight.
- Proposed Stage 1 Hours: Before 10 a.m. and 9 p.m. to midnight.
- Current Stage 2 Hours: 7-11 a.m. and 7-11 p.m.
- Proposed Stage 2 Hours: 5-10 a.m. and 9 p.m. to midnight.
  - Variance available for hose-end sprinkler users for 7-10 p.m.
- WHY: Reduce high demand on the energy grid in evenings.



# Outreach Efforts on Proposals

- [www.WateringRules.com](http://www.WateringRules.com) website established to centralize information
- 85 community presentations
- Website includes:
  - Survey on main proposals
  - Draft ordinance and USR documents
- Survey show most strongly in favor of all proposals

# Request

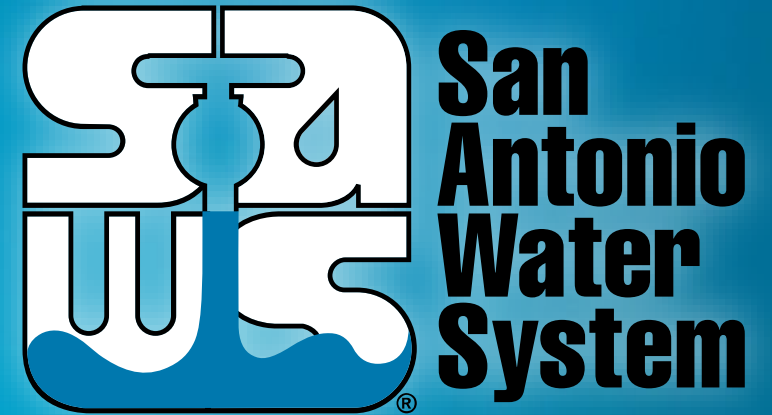
- Adoption of an Ordinance related to the proposed Conservation and Drought Rule Updates to Chapter 34 of the City Code

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