

# Conservation; A Cost Effective Water Supply

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Director / Water Conservation

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Rate Advisory Committee



# Conservation Topics

- Conservation and Water Management Plan
- Drought Regulations and Water Management Plan
- What Works to Save Water and Money?
- Conservation Challenges
- How Rates Help Conserve

# Saving Water Saves Money

Reduced peak water demand critical to price of water

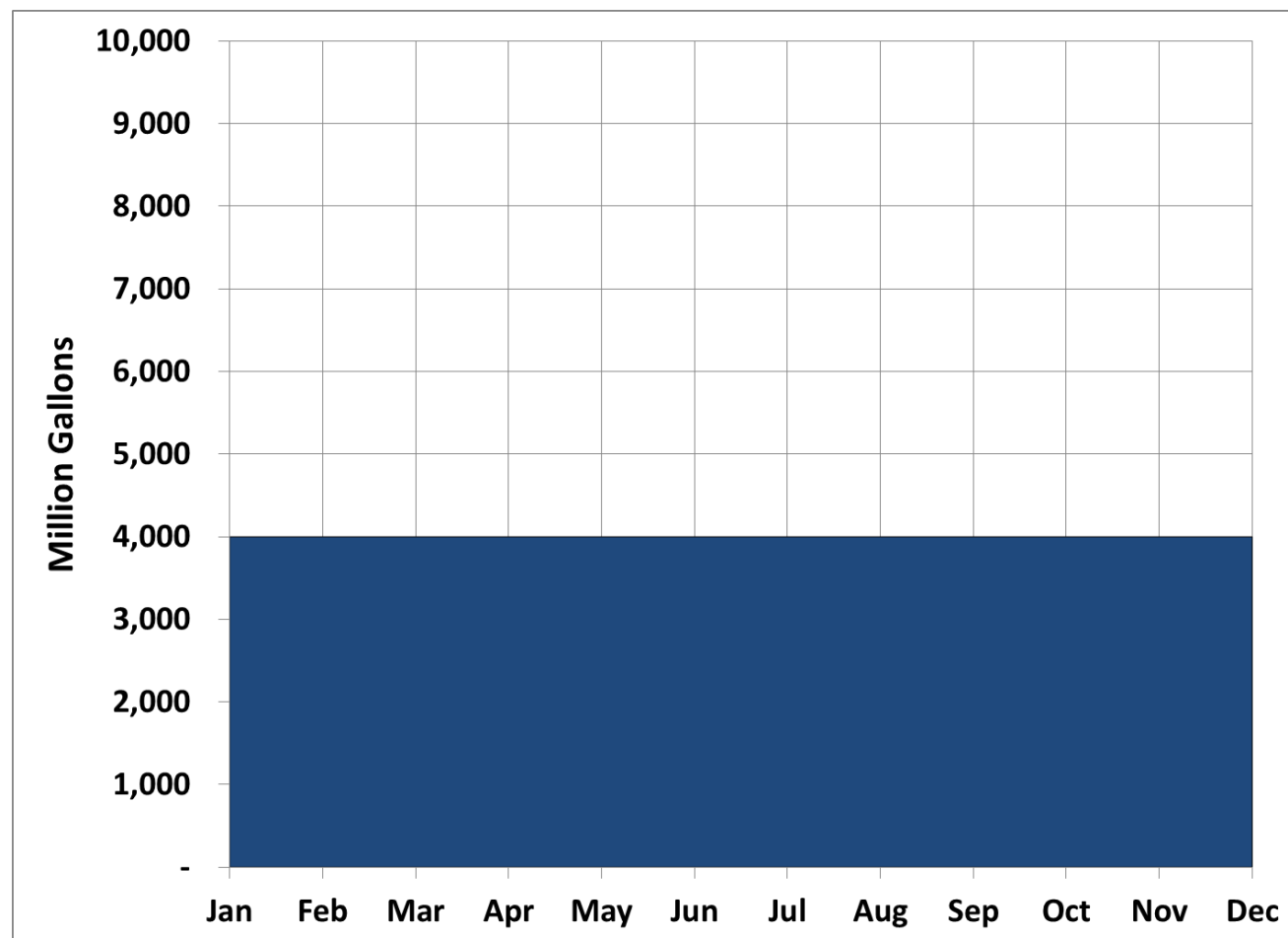
- SAWS must meet customer needs on the hottest, driest day during the deepest drought
  - Demand will be higher
  - Supplies will be lower
  - Infrastructure will be under stress
- Conservation reduces this challenge
  - Carry less extra water supplies for drought
  - Less sudden demands on system

# The Impact of Weather On Use

A base demand would be easy to supply

Base demand of about 4,000 MG per month based on a recent low month use

Predictable usage would make planning new supplies simple



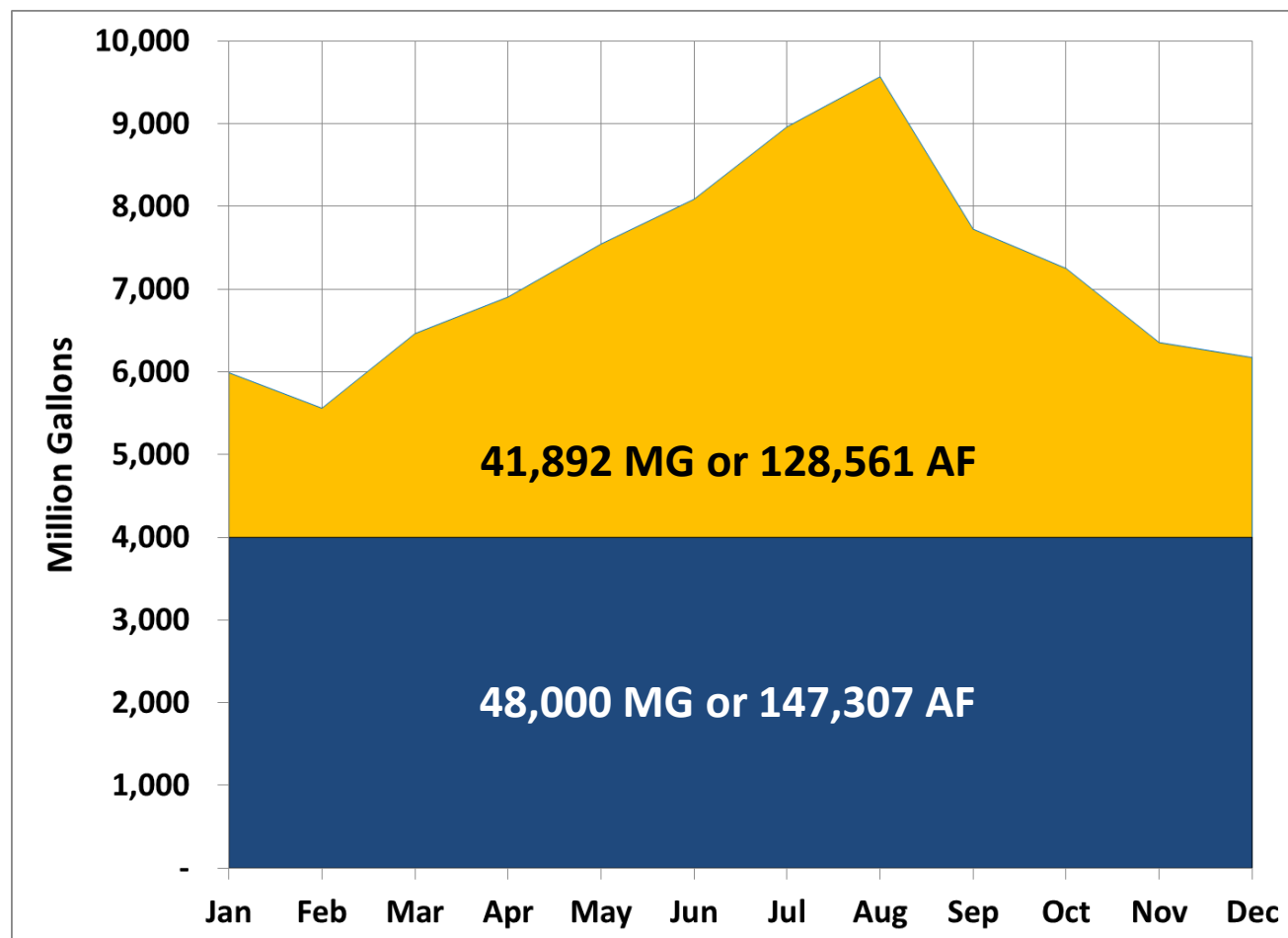
# How Much Water Use Is Variable?

A large amount of water use varies with season and weather

Water consumption varies the most in summer months

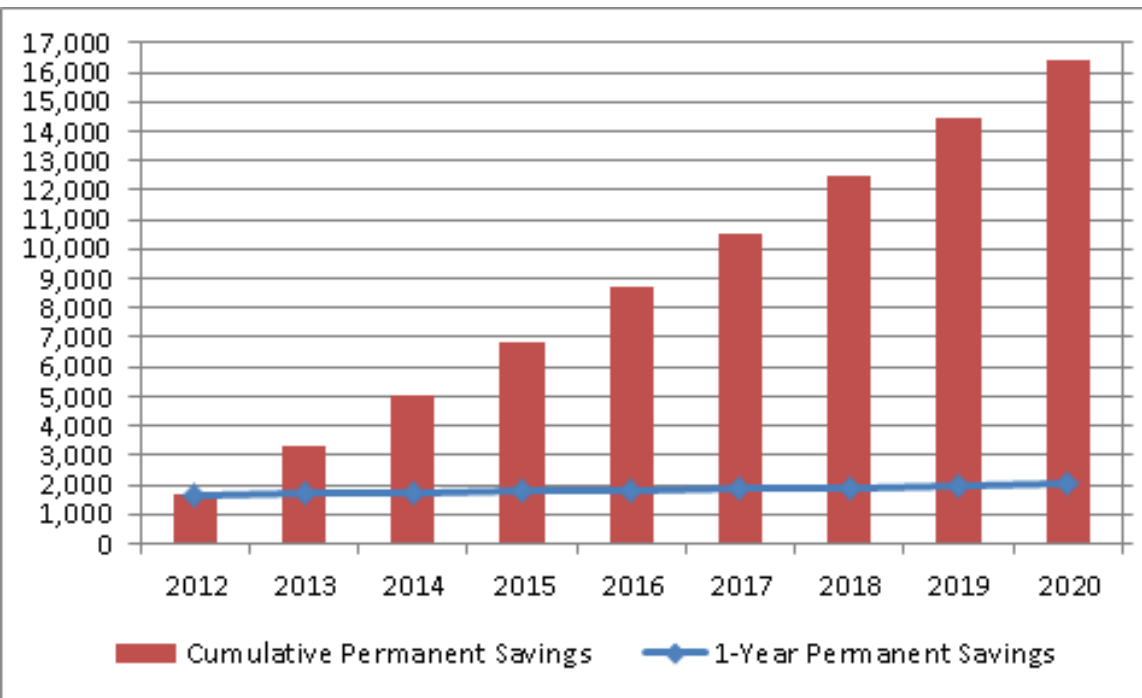
Winter use varies less, but is still impacted by weather

In wet years much of the peak sales go away as discretionary water use is reduced



# Water Management Plan Targets

**Demand Reduction: GPCD reduction from 143-135 during dry years**



Year	Permanent Savings		GPCD
	1-Year	Cumulative	Target
2012	1,644	1,644	143
2013	1,690	3,334	142
2014	1,736	5,070	141
2015	1,782	6,851	140
2016	1,827	8,679	139
2017	1,873	10,552	138
2018	1,919	12,470	137
2019	1,964	14,434	136
2020	2,010	16,445	135

**Savings targets are peak, not annual savings. This translates to savings during six hottest months of the year.**

# What About Drought Restrictions?

## Drought management reduces new supply need

- Drought demand management is built into our Water Management Plan to keep per capita use lower in dry years
- Per capita use would be much higher with no restrictions on lawn watering
- Water supply needs would be substantially higher



# Conservation Is Continuous



# Drought Management is Temporary



# Both are Demand Management



# Both Keep Water Costs Lower



# Conservation Strategies

## What works to save water over time?

### Education and Outreach

Partnerships, events, workshops, site visits, e-newsletter, performance contracts, advertising, work with media and other mass education outlets

### Reasonable Regulation

Addresses efficiencies in MANY uses of water

Developed with stakeholder groups

### Financial Investment

Tiered rate structure, rebate programs, free products and customer consultations



# Residential Conservation Programs



## WaterSaver Landscape Coupon

This pilot program encourages residential water customers to transform portions of their traditional lawns by removing grass and creating garden beds made up of hardy, drought-tolerant plants.

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## WaterSaver Home Checkup

Hear that? That's the sound of your money going down the drain. Not to mention the thousands of gallons of water being wasted because of household leaks.

[READ MORE](#)



## 7 Steps to Xeriscaping

Xeriscaping. What in the world does that word mean and how on Earth do you pronounce it?

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## WaterSaver Landscape Rebate

Create a WaterSaver Landscape and enjoy a lot of color while saving a lot of green.

[READ MORE](#)



## Irrigation Design Rebate

Through our Residential Irrigation Design Rebate you can identify design flaws that can result in healthier landscapes.

[READ MORE](#)



## Swimming Pool Filter Rebate

Replacing your sand or D.E. filter with a high-efficiency cartridge filter system can reduce your water consumption by as much as 20,000 gallons per year.

[READ MORE](#)



## Rainwater Harvesting

A house with a 1,000-square-foot roof can yield about 600 gallons of rainwater from just 1 inch of rainfall. That's a lot of water!

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## Watering Efficiently

Year-round, landscape watering is allowed before 10 a.m. and after 8 p.m. every day. Watering by hand-held hose or with a 5-gallon bucket is allowed any time; however, water waste is prohibited at all times.

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## WaterSaver Lane

Next time you visit the San Antonio Botanical Garden, be sure to take a stroll down WaterSaver Lane, the lawn and environmental exhibit sponsored in part by SAWS.

[READ MORE](#)



## WaterSaver Landscape Care Guide

San Antonio Landscape Care Guide focuses on how to maintain your low water use landscape. It will keep your landscape beautiful, lush and blooming.

[READ MORE](#)



## WaterSaver Plant List

SAWS' approved low-water plant list will add amazing color, texture and even shade to your water-wise landscape.

[READ MORE](#)



## WaterSaver Newsletter

Does your green thumb crave great gardening tips? Get this newsletter delivered right to your inbox! Each weekly edition comes packed with expert ideas, designer trends, and personalized advice.

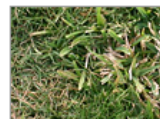
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## Rain Sensors for Sprinkler Systems

Attention all sprinkler system owners – rain sensors are here to stay. Part of the 2005 conservation ordinance outlines water-saving provisions concerning residential and commercial owners of irrigation systems.

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## Drought-Tolerant Grass Varieties for Commercial & Residential Builders

Conservation ordinance requires residential and commercial builders to install turf grass from an approved list of drought-tolerant varieties for newly constructed homes or businesses.

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# Commercial Conservation Programs



## Toilet Retrofit Program

Replace old, high-water use residential- and industrial-style toilets with new high-efficiency toilets – provided by SAWS absolutely free!  
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## Certified WaterSaver Program: Restaurants

Retrofitting your business with free water-conserving products can lower your operating costs.  
[READ MORE](#)



## Irrigation Design Rebate

Through this program, SAWS conservation consultants will work with your irrigator to help identify design flaws in your irrigation system that, if changed, can result in water savings and healthier landscapes.  
[READ MORE](#)



## Commercial Cooling Tower Audit

The cooling tower audit is brief, but intensive, on-site evaluation of your cooling tower and cooling water system.  
[READ MORE](#)



## Certified WaterSaver Program: Car Washes

The WaterSaver Car Wash Program results in real water savings, protects water quality, provides recognition and financial incentives for program participants.  
[READ MORE](#)



## Power Washing

The program rewards local pressure washing businesses for promoting clean water awareness and implementing best management practices.  
[READ MORE](#)



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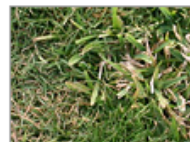
## Charity Car Washes

Attention all fundraisers! If you or someone you know raises money through car wash events, please know that the rules have changed.  
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## Irrigation Checkup

Annual irrigation checkups for properties 5 acres and over can contribute to water savings. Deadline is May 1 annually.  
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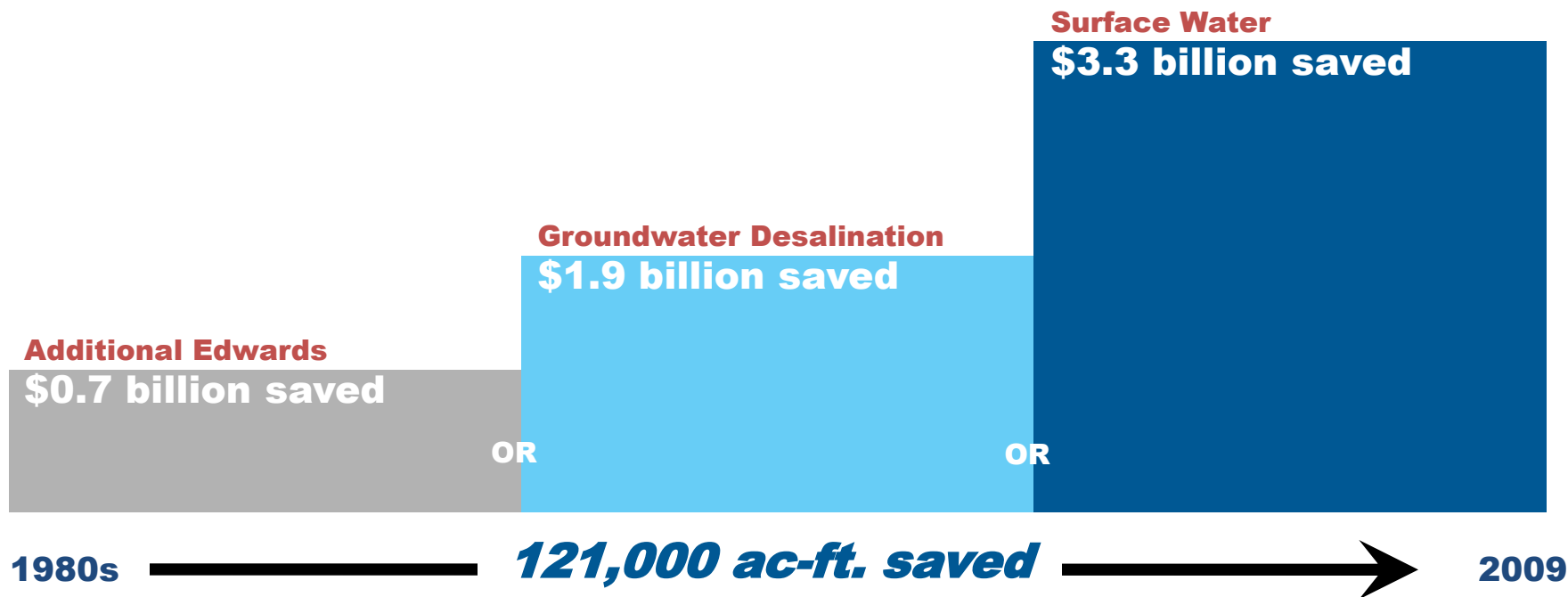
# Drought Demand Strategies

## Education combined with fair and firm enforcement

- In response to special conditions to obtain immediate cut-back
  - Focused **only** discretionary usage
  - **Never** on production water or for health and safety
  - Mandatory and temporary
  - Staged to reflect severity of situation
  - Can be inconvenient for customers
- Costs
    - Part-time officers
    - Temporary employees for education, communication and administration
  - Benefits: Savings
    - Cost/acre foot under \$100

# Conservation Cost Savings

New supply projects cost more than conserved water



**Deferred alternative supplies would have cost up to \$3.3 billion**

# Conservation Challenges

Conservation programs designed to address these issues

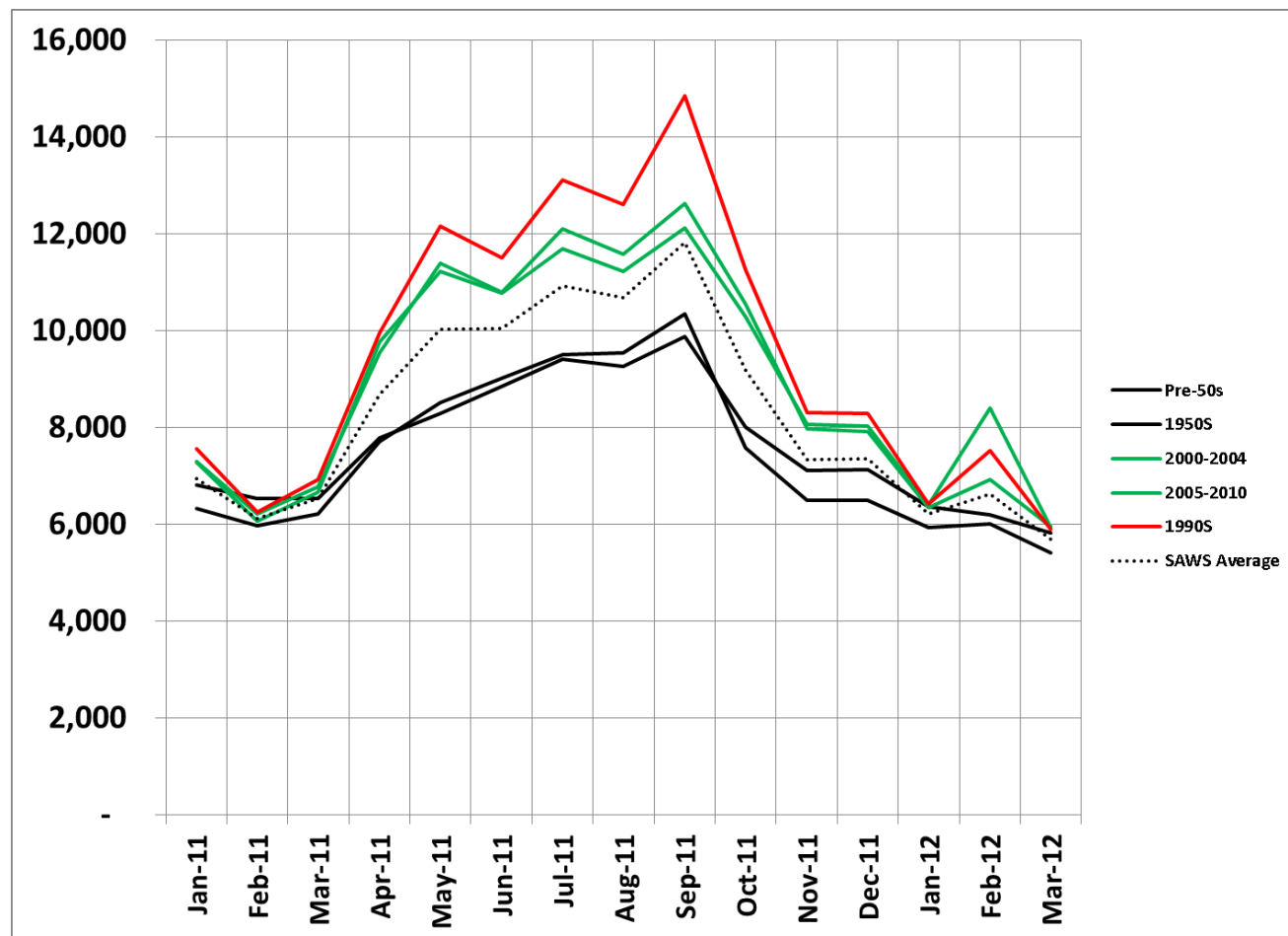
- Discretionary use has increased for new homes and businesses in recent years
- Consumption patterns among customers highly variable; even within neighborhoods
- Drought restrictions effective for where they can be enforced

# Newer Homes Use More Peak Water

Irrigation systems in new homes drive high, volatile use patterns

## Nationwide Trend

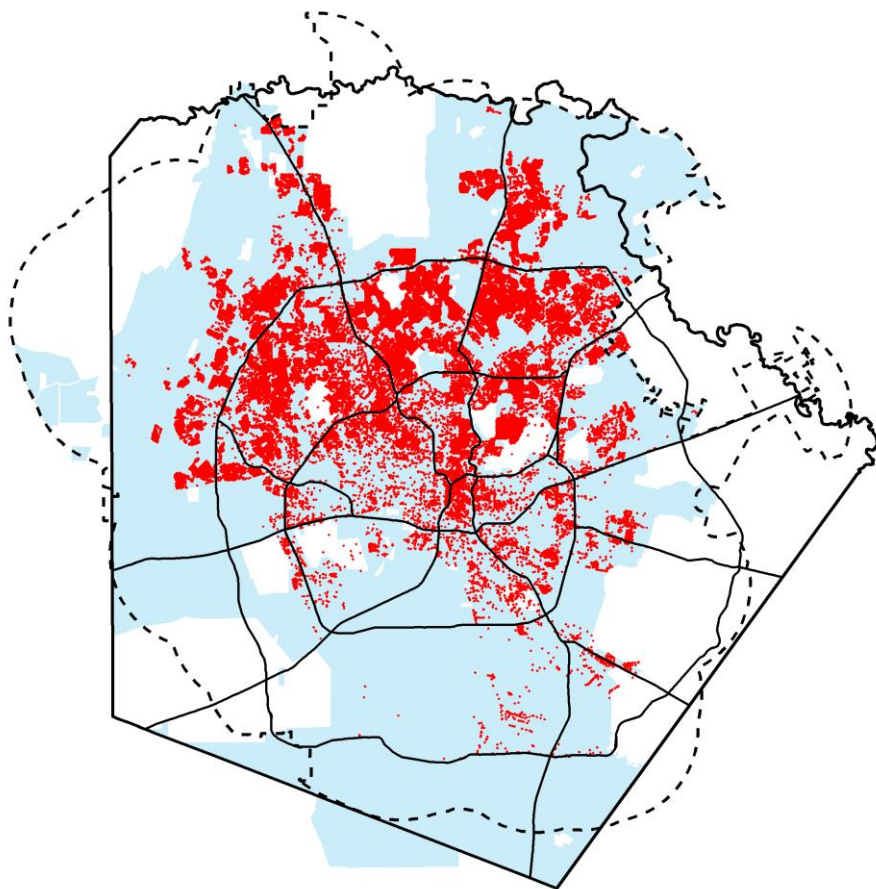
- 1990s: high end homes on larger lots with poor irrigation
- 1950s: lowest use despite indoor fixtures
- Newest: higher than average despite efficiency indoor and higher irrigation standards





# The Impact Of Automatic Irrigation

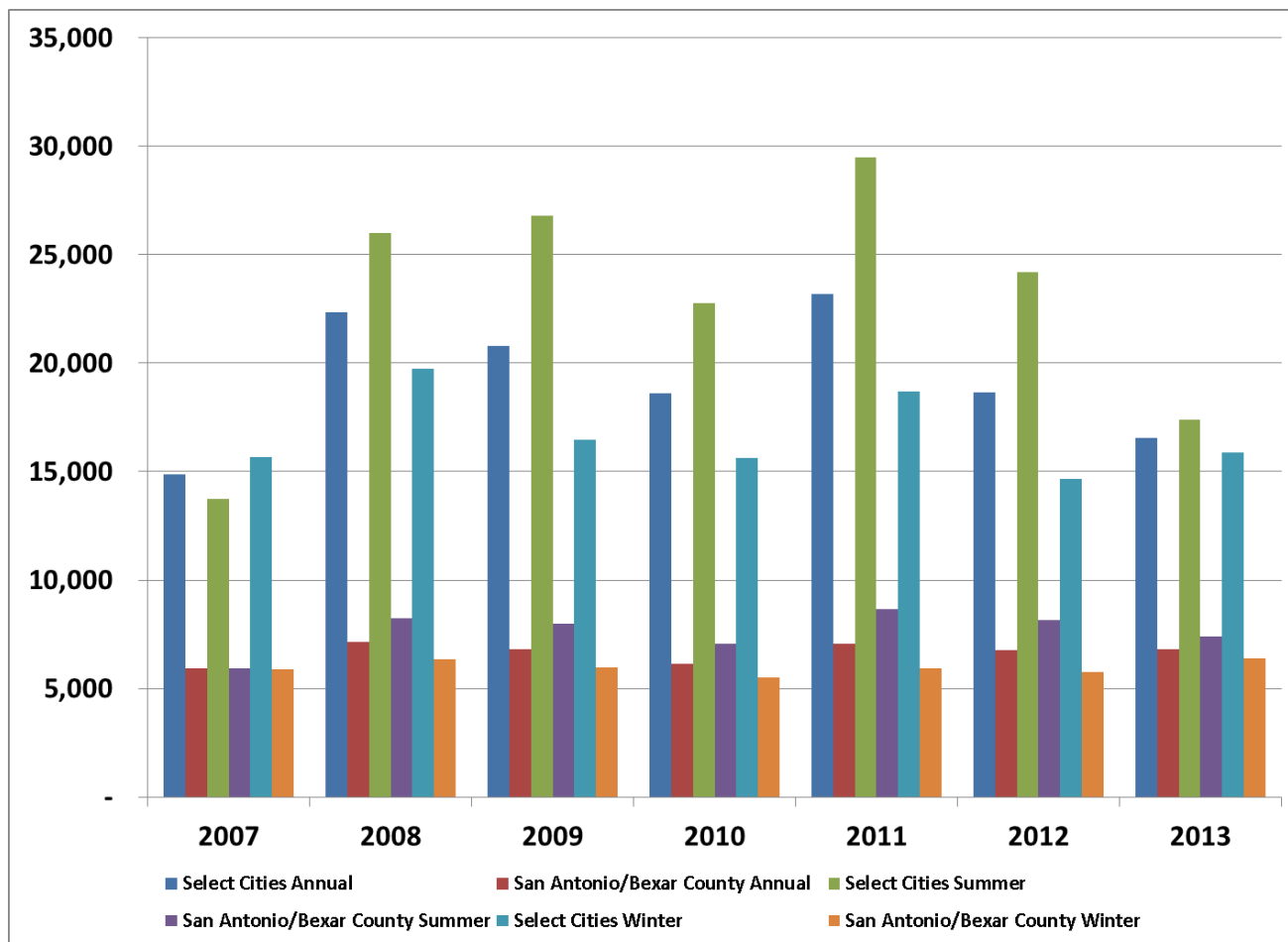
## Location of irrigation systems in San Antonio



- Approximately 30% of homes and businesses have irrigation systems
- Many new homes are built with irrigation
- Nearly all business now add irrigation
- Homes with irrigation use 51% more water year-round and 70% more in the summer

# Analysis: Water Use By Cities

Water use varies among neighbors and cities served by SAWS



# How Do Rates Help Conserve?

## Rate structure and fees can help meet conservation goals

- Conservation funding build into rate structure
- Tiered rates provide a financial incentive to reduce peak usage
- New models are being considered to stabilize revenue during wet periods
- Excess use surcharges have never been enforced but are a mechanism to reduce peak in a multiple year drought
- Rates can be used as an alternative to citations for customers outside San Antonio city limits

# Contact Information

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# Comparing Now To 1950's

Our "Drought of Record" was seven years in the 1950's

