



Five-Year Water Conservation Plan

February 29, 2024

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Presentation Outline

- What and Why of Water Conservation
- Why a Water Conservation Plan
- Water Use Trends
- Overview of Existing Water Conservation Program
- Overview of Proposed Water Conservation Plan
- Measuring Success

What is Water Conservation (and Efficiency)

- **Water Conservation** = the beneficial reduction in water loss, waste or use.
 - Example - turning off the water when shaving or brushing teeth, or only running the dishwasher when it's full.
- **Water Efficiency** = the minimization of the amount of water used to accomplish a function, task or result
 - Doing the same activities with less water
 - Example - washing dishes or flushing the toilet with the least amount of water necessary to get the job done

Resource CONSERVATION

Where's the **WATER** GOING?

As much as 50% of the water we use outdoors is wasted from inefficient watering methods & systems

BATHROOM

- Turn off water while brushing teeth or washing hands
- Take shorter showers
- Use a leak-free high efficiency toilet

10 DRIPS/MIN
= 500 GALLONS PER YEAR...
OF WATER WASTED

KITCHEN

- Wash only full loads of dishes
- Compost food waste instead of using a garbage disposal
- Scrape rather than rinse
- Keep drinking water in the refrigerator instead of running faucet until water is cool

LAUNDRY

- Wash only full loads using correct water levels
- Consider purchasing high efficiency appliances
- High efficiency washers can save over 50% in laundry water and energy use

HOUSEHOLD WATER WASTED

10,000+ GALLONS OF WATER* = 270+ Loads of Laundry

*Source: U.S. Environmental Protection Agency

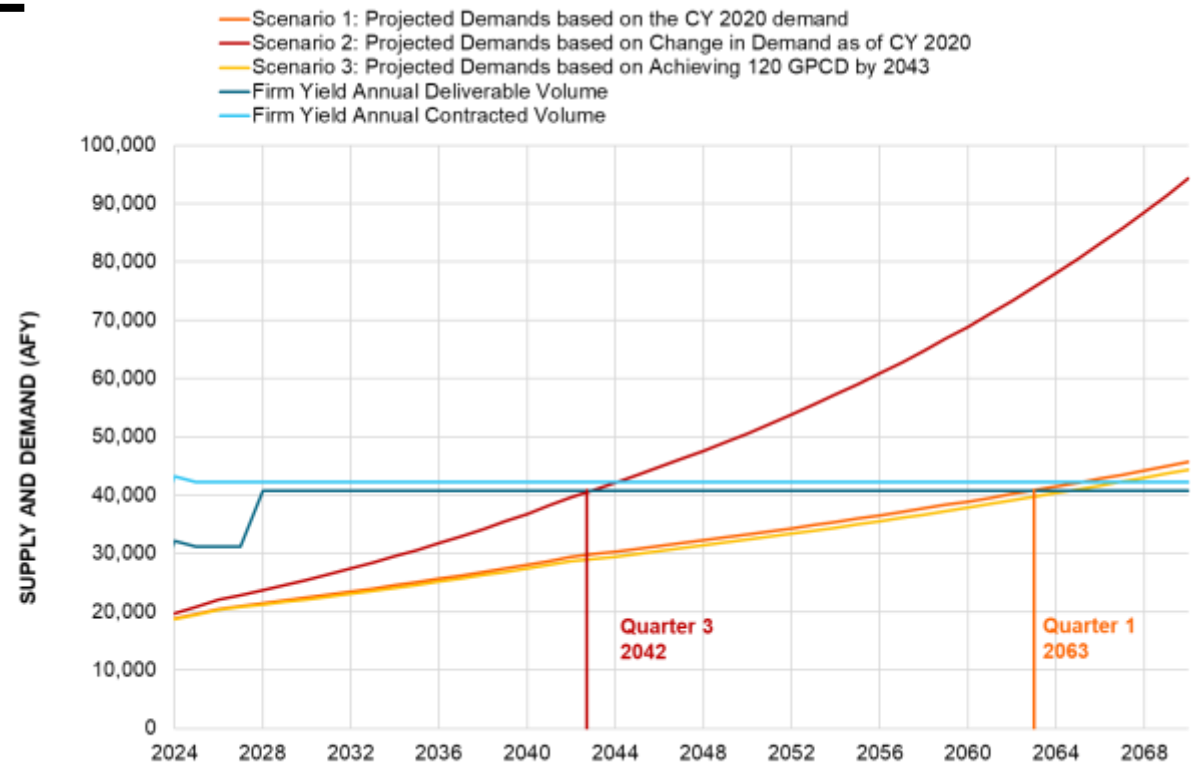
Resources: United States EPA

Why Water Conservation



Why Water Conservation

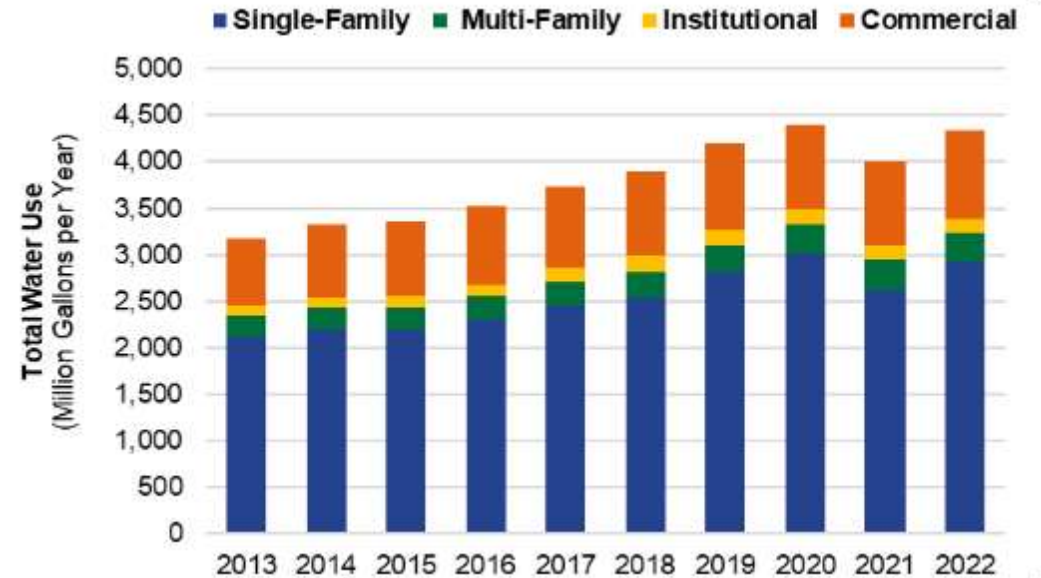
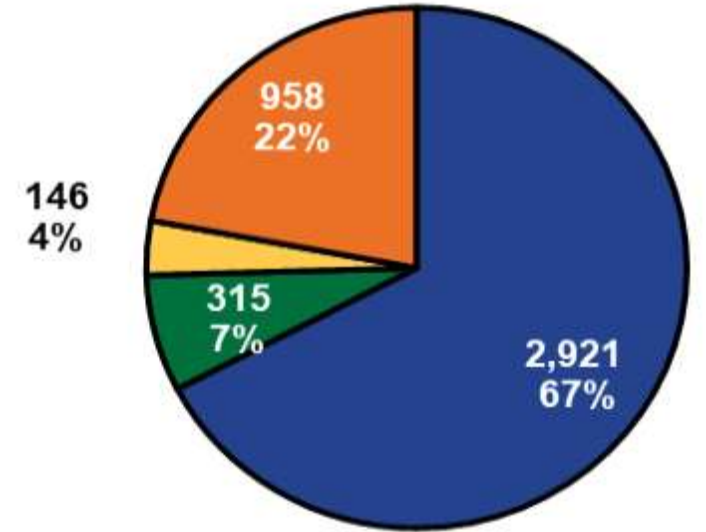
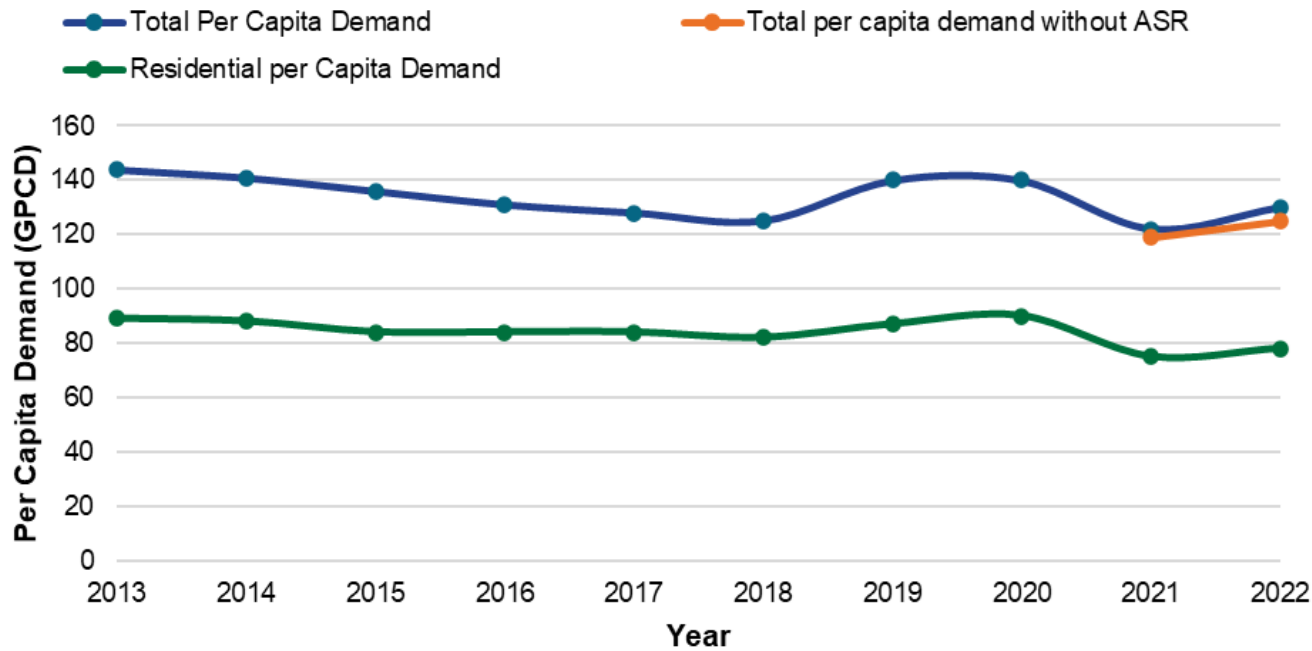
- The less water used on average per person, the further into the future our existing water supplies will meet needs
- This results in both lower capital expenses and lower rates
- Lowering total water use on peak days has an even greater impact as water purchases and infrastructure sizing must meet use on these days



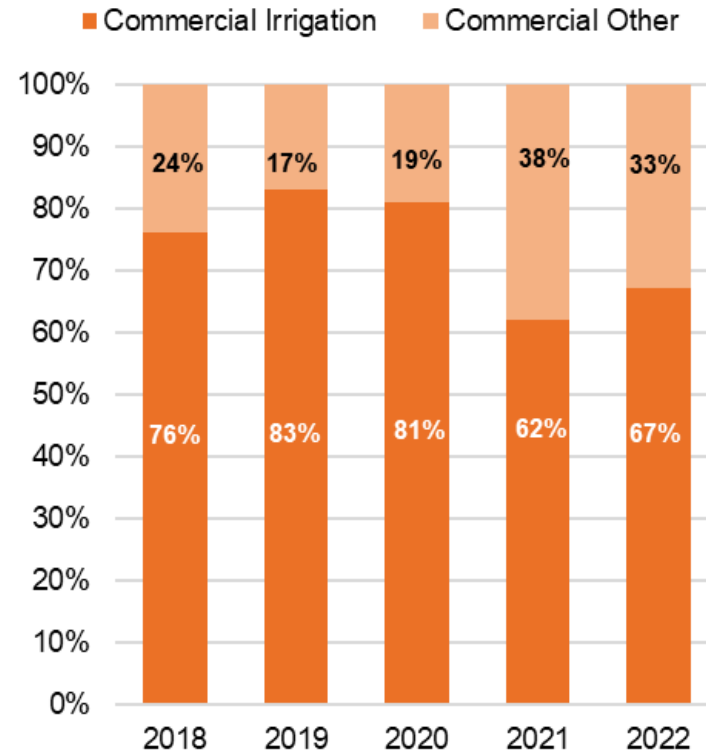
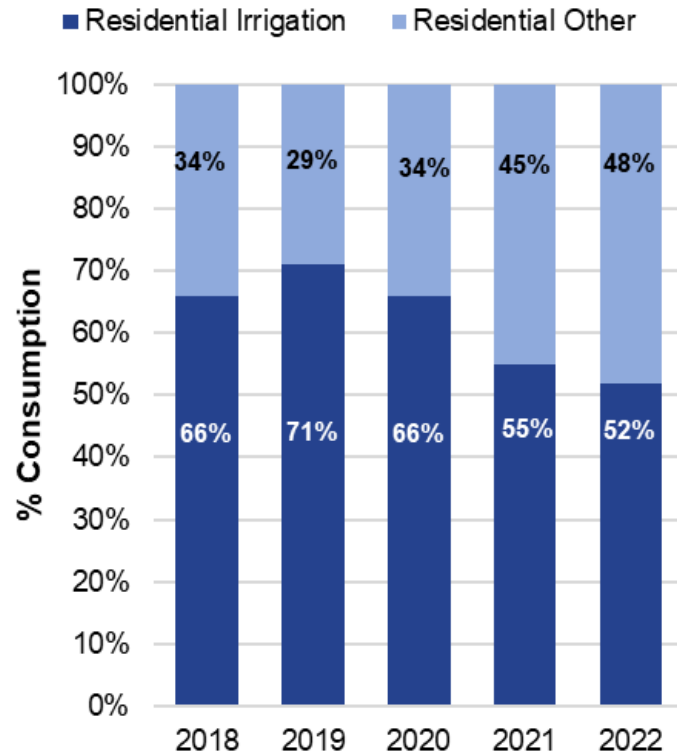
Why a Water Conservation Plan (WCP)?

- “If it is not measured, it is not managed”
 - Analysis of NBU and customer use water helps us to identify targeted, effective strategies to reduce total use
- State of Texas requires all utilities with 3,300 connections or more to develop and submit a WCP every five years

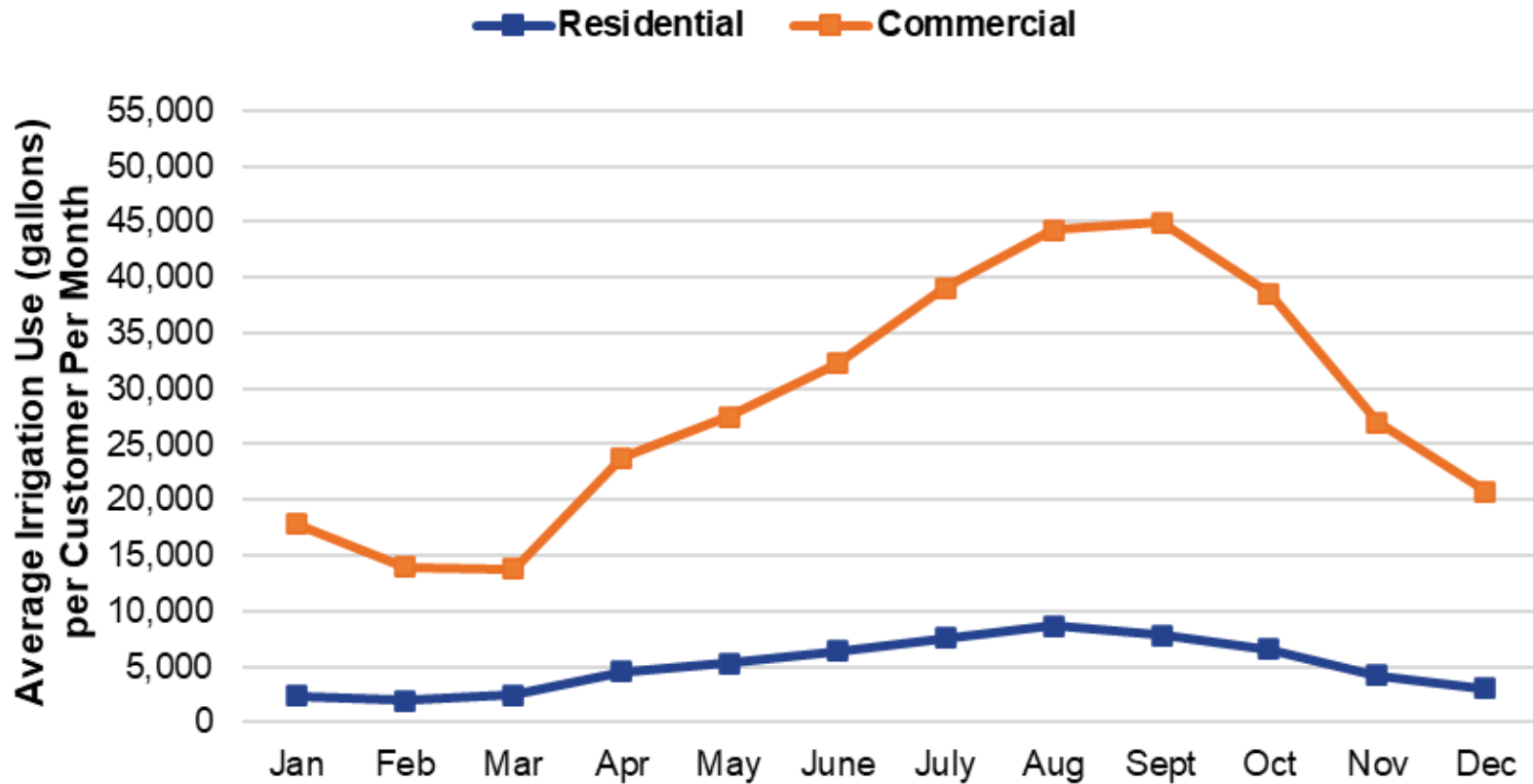
Water Use by Customer Type



Irrigation: Single Biggest Water Use

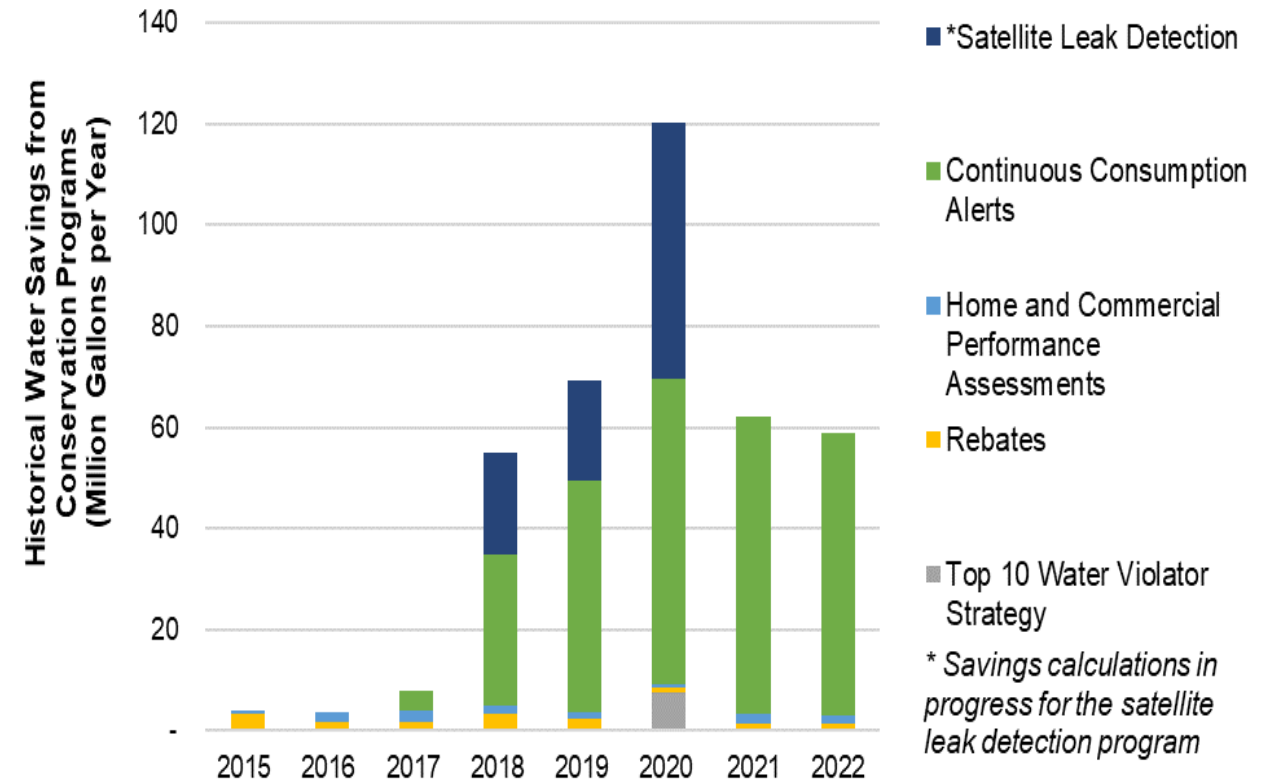


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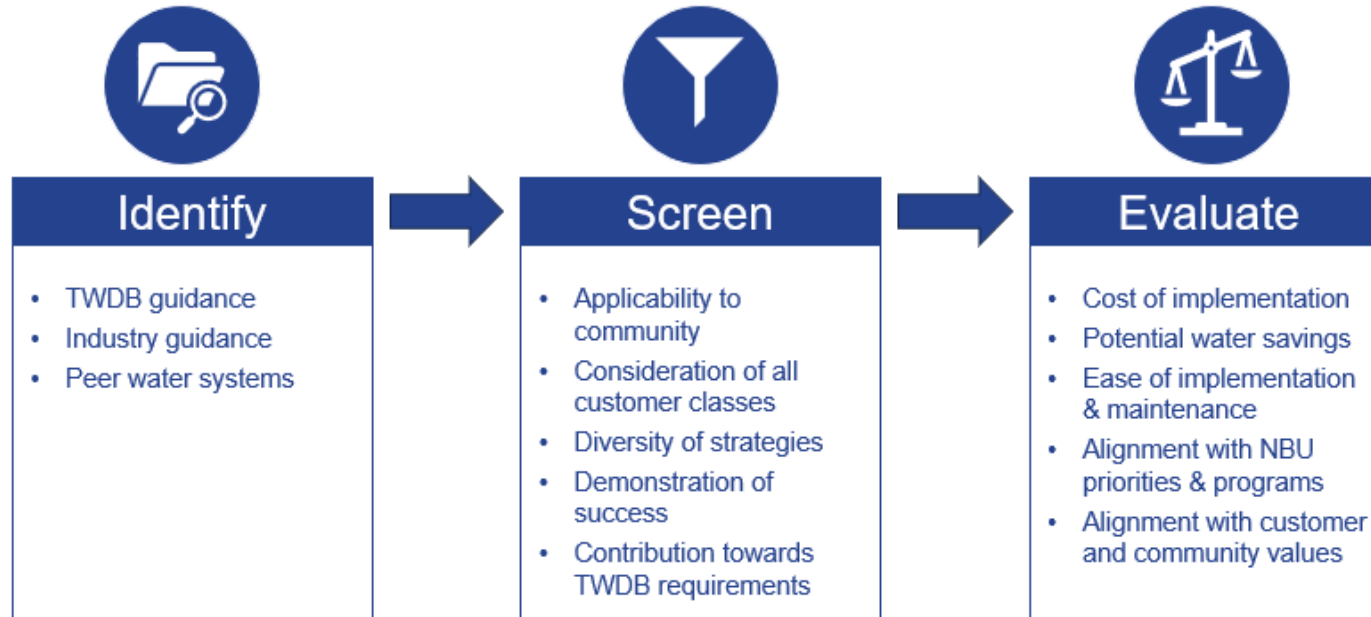


Existing Water Conservation Program

- 16 conservation strategies
- Dedicated customer-facing conservation team
- Crossdepartmental water loss team
- Existing ordinance and strong partnership with the City



WCP Development Process



2024 – 2029 Prioritization Goals

- Achieve long-term per capita demand reduction
- Balance incentive programs, ordinances, & education
- Balance NBU programs & community engagement
- Initiate new ordinances for new, commercial businesses while improving enforcement of the existing Drought Management Plan
- Focus on new strategies that NBU's CCS team can drive with support from other NBU departments
- Budget for larger investments within the next Capital Improvement Plan (2028 – 2033)

Conservation Plan Strategies

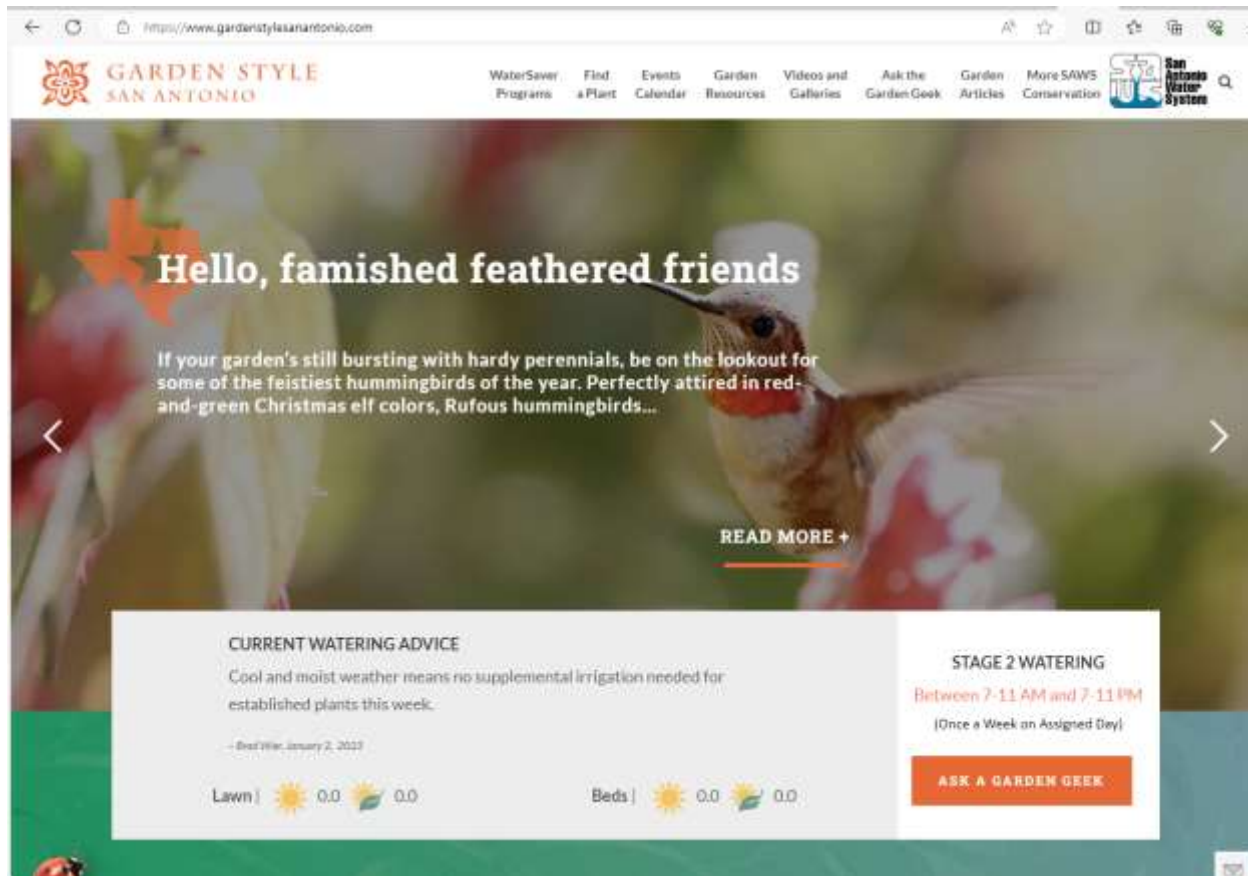
New Conservation Strategies	Expanded Conservation Strategies
<ul style="list-style-type: none">• Conservation Data Analytics and Visualization• Irrigation System Inspection Program• New Development Ordinance Revisions• Water Conservation Education and Outreach Plan• Engage Local Officials and Community Stakeholders• Establish Water Conservation Partnerships with Local Trade Organizations	<ul style="list-style-type: none">• Advanced Metering Infrastructure• Increased Investment in Asset Management• Drought Management Plan and Enforcement• Home and Commercial Irrigation Assessments with Rebates• Water-Wise Landscape Rebates

Landscape Transformation Program

- Community-informed Drought Contingency Plan
- Expanded Irrigation System Inspection Program
- Refreshed and Improved Water-Wise Landscape Rebate Program
- New Development Landscape Ordinance Language
- Home & Commercial Irrigation Assessments with Rebates



Water Conservation Education & Outreach Plan



Expanded Stakeholder Engagement

- **Engage Local Officials & Community Stakeholders**
 - Gather input from customers and industry professionals in program design phase
 - CAP feedback on new ordinance & outreach and education materials developed
 - Engage with local officials and provide guidance on ways local officials can support conservation
- **Establish Water Conservation Partnerships with Local Trade Organizations**
 - New partnerships with local trade organizations(e.g., landscapers and plumbers)
 - Provide hands-on support for implementing business changes to support conservation initiatives

Conservation Data Management

- **Conservation Data Analytics and Visualization Solution**
 - New billing system will provide tools to manage water demand and conservation
 - Real-time robust data analytics
- **Advanced Metering Infrastructure**
 - Investigate additional opportunities to leverage AMI for water conservation
 - Evaluate the feasibility of reaching 100% AMI throughout the system
 - Consider grant funding opportunities

NEW Account Portal

ALLOWS CUSTOMERS TO:

- View billing and usage history
- Access information for multiple accounts
- Pay by Debit/Credit Card or Electronic Check

ADDITIONAL FEATURES:

- Usage forecast
- Usage reduction: Users can track usage goals and progress for their usage reductions
- Weather/Temperature/Events Overlays
- Landlord view: Portal presents a view for a landlord to use
- Auto-link accounts
- Guest users
- Update contact information
- Enhanced notifications (bill reminder, past due notice, usage notifications)
- Search historical transactions
- E-Billing enrollment
- Mobile App Coming Soon

PUTS YOU IN CONTROL | EASY TO USE | MORE FEATURES

To sign up or learn more about the NBU Online Account Portal visit nbutexas.com/online-portal

Non-Revenue Water Program

- **Increase Investment in Asset Management**
- **In Process:** Currently developing an Aging Infrastructure Plan, which will inform budgets for the FY 2029 – 2033 Capital Improvement Plan
- **Planned:** \$48 million budget separated in infrastructure repair & rehabilitation over the next 5 years



Measuring success

Water Conservation Program	Metrics	
Overall Program Management	<ul style="list-style-type: none"> Tracking of total per capita demand Tracking of residential per capita demand Tracking of average use per account per customer type 	
Non-Revenue Water Program	<ul style="list-style-type: none"> Tracking of number of leaks detected Tracking of estimated water savings Tracking of unit annual water losses 	<ul style="list-style-type: none"> Number of breaks per mile of pipe Infrastructure Leakage Index
Landscape Water Transformation Program	<ul style="list-style-type: none"> Decrease in average irrigation water use per customer (customers with irrigation meters) Number of water-wise landscape rebates approved per year Number of irrigation assessment rebates approved per year Area of turf removed (sf) 	<ul style="list-style-type: none"> Enforcement program for updated DCP Percent of identified violators receiving a warning Approval of the New Development Ordinance revisions
Indoor Water Use	<ul style="list-style-type: none"> Number of indoor rebates approved per year Tracking of estimated water savings 	

Next Steps

- Final Plan will come to the Board for consideration at a future meeting
- Plan will be presented to City Council for consideration
- Staff will implement new and expanded strategies across the five-year period



Questions?