Welcome! We Will Begin Shortly.

- **Login or Audio Troubles**
  - Please type questions in chat window for help.
  - If you cannot hear the audio through the computer, you can listen in by calling:

US: +16692545252,,1600307366# or +16468287666,,1600307366#

For higher quality, dial a number based on your current location.
US: +1 669 254 5252 or +1 646 828 7666 or +1 669 216 1590 or +1 551 285 1373

160 030 7366

- **Questions**
  - There will be a Q&A session at the end of the presentation.
  - Submit questions to the organizer and panelists via the Q&A box or the Chat to “Host.”
- **Presentation Slides & Recording**
  - Presentation slides will be sent to all participants.
  - This session will be recorded, however the Q&A session will not be included in the recording.
- **Notes**
  - To improve audio quality, all attendees are muted upon entry.

Reducing Costs With Quick Water Wins

Kersey Manliclic, EPA WaterSense

Holly Cannon, ERG

Delorean “Doc” Wiley, Austin Water

EPA WaterSense

March 26, 2025

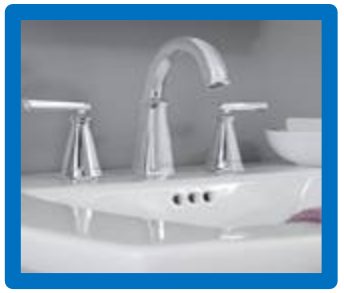
What is WaterSense?

- WaterSense is a voluntary program launched by EPA in 2006 that provides a simple way to identify water-efficient:
  - Products
  - Programs
  - Practices
  - Homes
- Products are independently certified for water efficiency **and** performance

WaterSense Labeled Products

Indoor products

Showerheads



Lavatory Faucets

NEW Point-of-use Reverse Osmosis Systems

Tank-Type Toilets

Flushometer Valve Toilets

Flushing Urinals

Outdoor products

Spray Sprinkler Bodies

Weather-based

Soil Moisture-based

Irrigation Controllers

More than **45,000** product models have earned the label.

WaterSense Resources

- Water use information by facility type
- Best management practices
- Water-saving tips
- Assessment tools
- Worksheets and checklists
- Live and recorded training webinars
- Case studies and more!

www.epa.gov/watersense/tools-ci-facilities

Best Management Practices

WaterSense at Work: Best Management Practices for Commercial and Institutional Buildings

Water management planning

Water use monitoring and user education

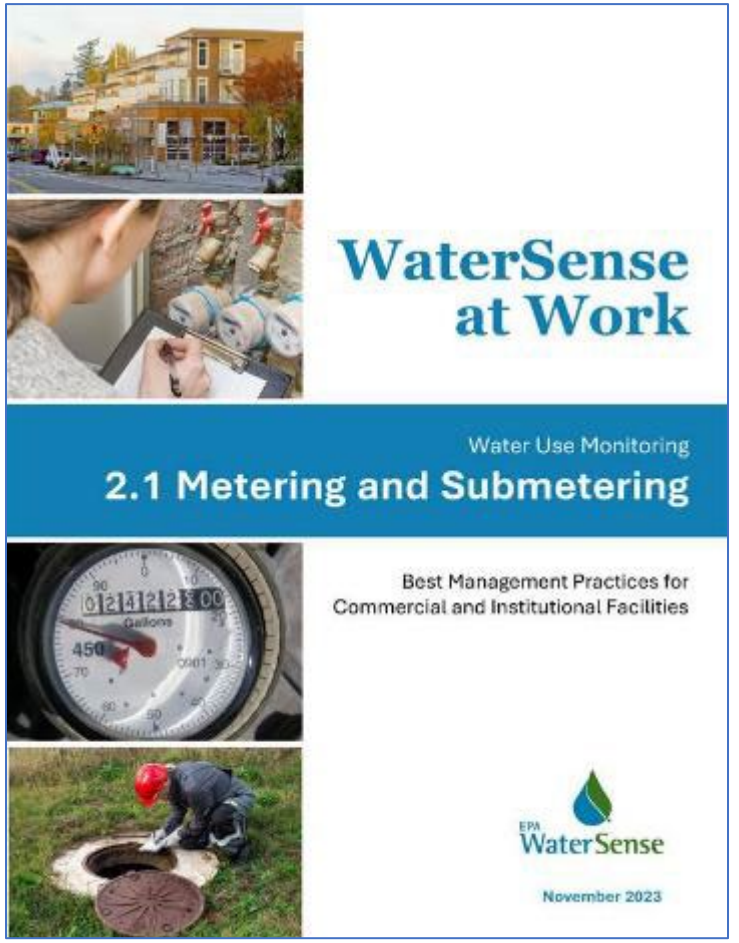
Sanitary fixtures, kitchen equipment

Outdoor water use, Mechanical systems

Lab & medical equipment

Onsite alternative sources of water

www.epa.gov/watersense/best-management-practices



Water-Savings Hierarchy

Quick Wins – Low level of effort, no/low capital expenditure

- Metering, submetering, AMI, reviewing bills
- Finding and fixing leaks
- Involving employees and vendors in reducing water use
- Changing O&M practices and implementing low-cost retrofits/replacements

Moderate Scale Projects – Moderate LOE and investment

- Ex. conducting a full water assessment to verify opportunities and savings

Large Scale Projects - High LOE, capital expenditures

- Ex. Replacing equipment and systems, renovating, incorporate water efficiency in new spaces

Review Bills Monthly

- Assign someone at the facility to look at water use data via the water bill every month
- Look for anomalies or spikes in water use—these could be leaks
- Consider if you should have reduced sewer charges for water lost to evaporation from cooling towers or water applied to the landscape for irrigation

City Water and Wastewater Bill

Bill Date: October 1, 2023
Due Date: November 1, 2023
Account Number: 987654-32

Customer Name: Facility XYZ
Service Address: 123 Anywhere Lane

Billing Detail:

Water Charges: (a)			
Tier 1 – (0-100)	$4.70/ccf	100	$470.00
Tier 2 – (101-250)	$5.10/ccf	150	$765.00
Tier 3 – (251-500)	$5.73/ccf	250	$1,432.50
Tier 4 – (500+)	$6.13/ccf	50	$306.50
Total Water Charges		550	**$2,974.00**
Wastewater (Sewer) Charges: (b)			
Sewer Consumption	$6.23/ccf	550	$3,426.50
Total Wastewater Charges		550	**$3,426.50**
Other Charges: (c)			
Fire Service			$27.33
Stormwater Charge	$104.89/acre	2.1	$220.27
Base/Service Charge			204.33
Total Other Charges			**451.93**
Total Charges			**$6,852.43**

Summary of Charges:

Previous Balance	$6,221.38
Payment – Thank you	$6,221.38
Water, Wastewater, Other Charges	$6,852.43
Adjustments/Deposits	$0.00
Total Charges	**$6,852.43**

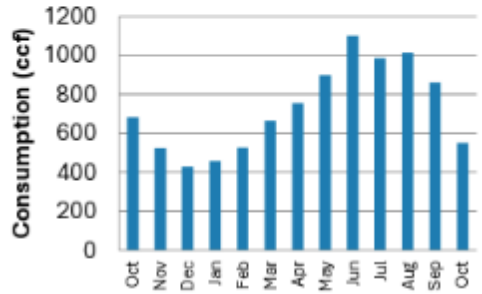
Meter ID: 12345

Meter Size: 2"	
Current Meter Reading	33,127
Prior Meter Reading	32,681
Water Usage This Period (ccf) (d)	446
Water Usage This Period Last Year	682

Meter ID: 67890

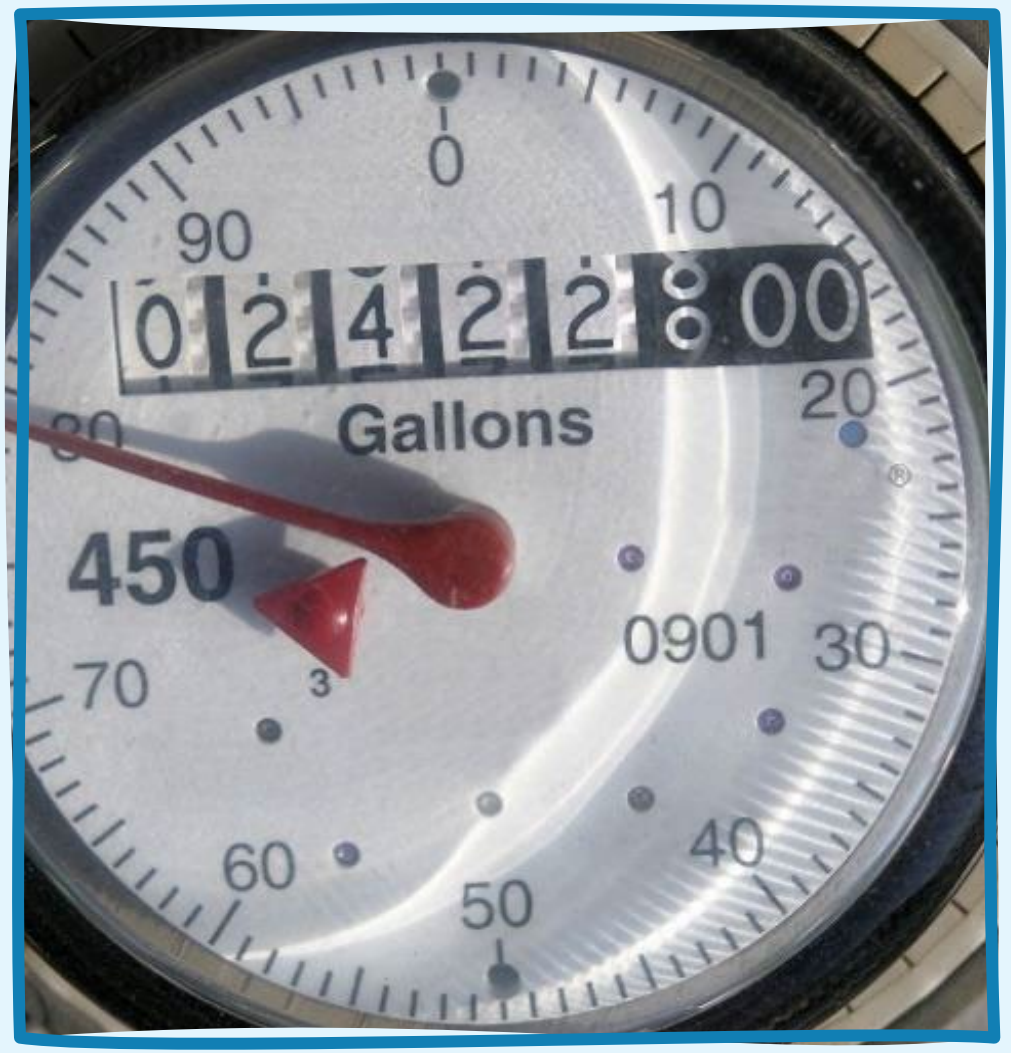
Meter Size: 2"	
Current Meter Reading	982
Prior Meter Reading	878
Water Usage This Period (ccf)	104
Water Usage This Period Last Year	159

Consumption (e)



Submetering

- Don’t wait for bills to find problems!
- Submeter specific end uses for data on demand
  - Submeters do not need separate utility accounts—they can be for internal use only
  - **Submeter any system using more than 1,000 gallons per day or 100,000 gallons per year**—tenant spaces, irrigation systems, cooling towers, single-pass cooling systems
  - Consider temporary flow meters or other water monitoring devices
  - Set up alerts to quickly identify leaks and equipment inefficiencies and malfunctions



Leaks and Waste Indicators

- Leaks and continuous uses of water can be 5-10% or more of a facility's water use
- Identify leaks by:
  - Looking for spikes on water bills
  - Paying attention to alerts from AMI or leak detection or failure abatement devices
  - Looking and listening for drips, running fixtures, puddles, and running fixtures during a daily facility walk-through
  - Ensuring employees and staff have a way to report leaks
  - Fully evaluating and accounting for facility water use by conducting a full water use assessment and developing a water balance

Leak Detection Devices

In-line Flow Sensors

- Flow sensing technology monitors the flow of water into the facility and detects leaks.
- Auto shut-off valve and alerts

Surface Leak Sensors

- Detect the presence of water in areas where it should not be
- Multiple sensors can be placed in different areas
- Some systems use an auto shut-off valve

Non-invasive Leak Detectors

- Include temporary flow meters and acoustic detection devices
- Used to identify leaks in specific areas
- Do not always provide 24/7 monitoring

Look Into AMI

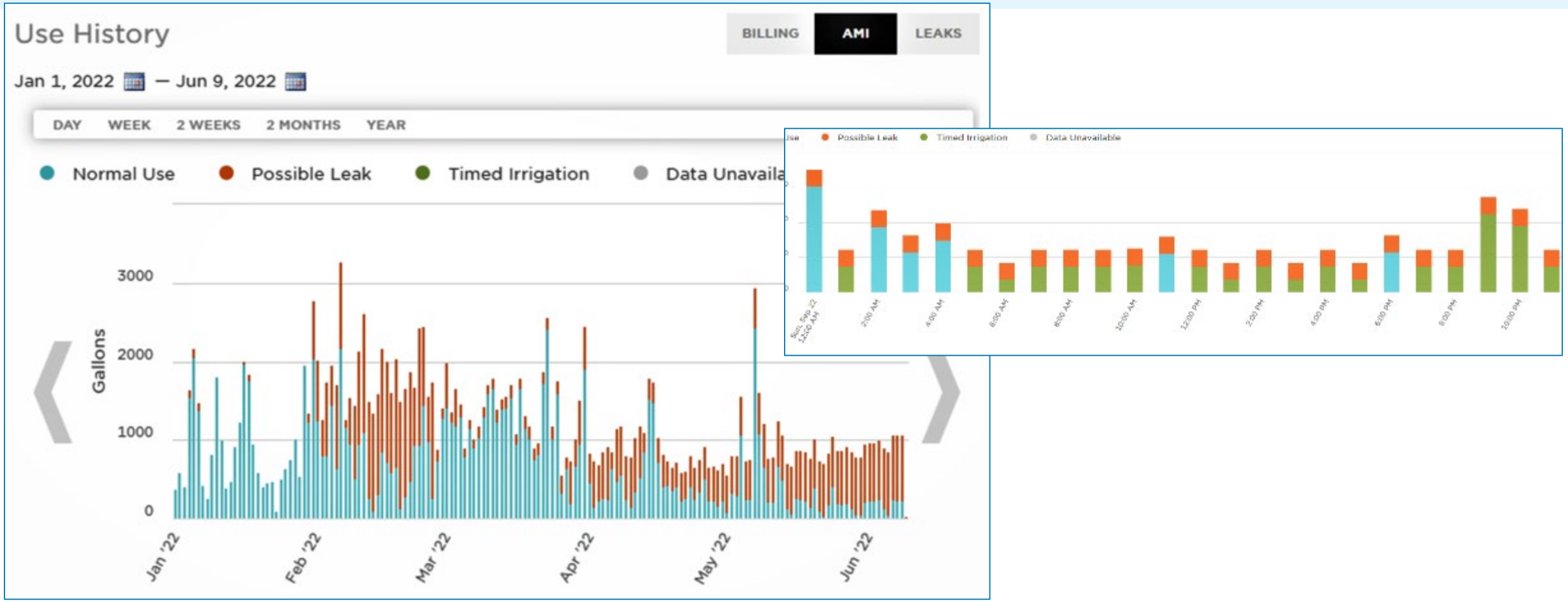
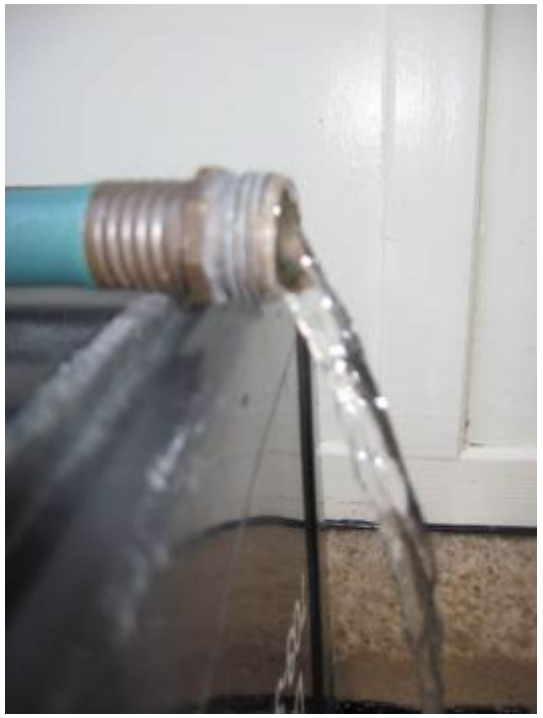


Image from VXengage portal provided by VertexOne, care of Scotts Valley Water District

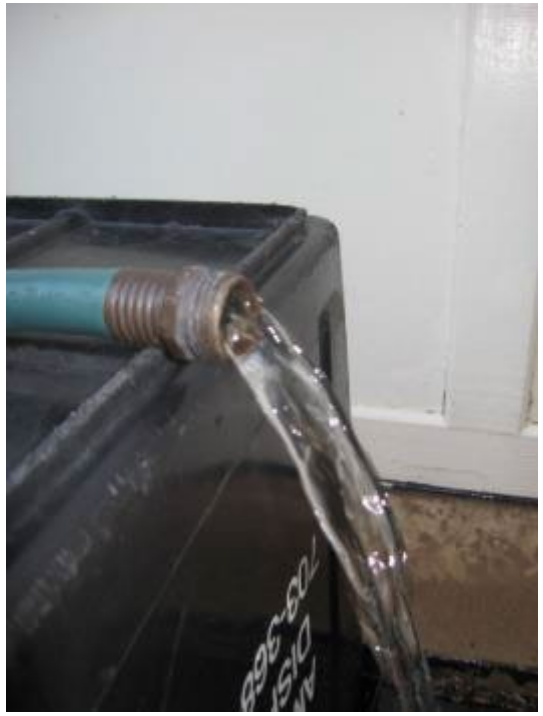
Stop Sending Money Down the Drain



1 gpm

500,000 gal/year

$5,500/year*



2 gpm

1,000,000 gal/year

$11,000/year*

6 gpm

3,000,000 gal/year

$33,300/year*

*at national average commercial cost of $11.09 per 1,000 gallons

Potential Leak Losses

Malfunction	Leaking Flow Rate (gpm)	Water Loss	Estimated Cost of Water Loss
Leaking Toilet Small (e.g. worn flapper) Medium (e.g. misaligned flapper) Large (e.g. stuck fill valve)	 0.02 gpm 0.2 gpm 3.0 gpm	 860 gallons per month 86,000 gallons per month 4,300 gallons per day	Up to $1,400 per month
Drip Irrigation Malfunction	1.0 gpm	43,200 gallons per month	$5,700 per year
Unattended Water Hose at Night	10.0 gpm	5,400 gallons per day	$22,000 per year
Broken Distribution Line For: One Day One Week One Month	 15.0 gpm 15.0 gpm 15.0 gpm	 21,600 gallons 151,200 gallons 648,000 gallons	Up to $86,000 per year
Tempering Water Line on a Steam Sterilizer Stuck in the On Position	2.0 gpm	86,400 gallons per month	$11,500 per year
Stuck Float Valve in a Cooling Tower	5.0 gpm	216,000 gallon per month	$29,000 per year

Involve Employees

Add specific tasks to existing routines

Property or Facility Manager

Check meters during off-hours – movement can be a leak

Incorporate looking for leaks into daily facility walk-through

Check cooling towers (if applicable) for water going to overflow

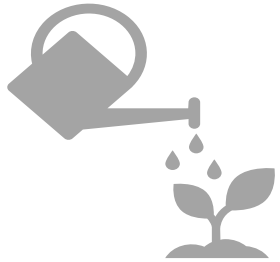
Initiate low-cost retrofit projects

Housekeeping & Cleaning Staff

Report dripping or clogged faucets and showerheads and continuously running toilets to facility management

Involve Employees

Add specific tasks to existing routines



Landscape Staff/Contractor

Look for broken sprinkler heads, puddles on the landscape, sprinklers spraying on hardscape, and other signs of leaks or waste

Adjust irrigation controller schedules to account for recent wet weather

Kitchen Staff

Shut-off equipment between uses, especially food disposals

Hand scrape dishes and dry sweep floors

Try to fill machines (e.g., dishwashers, steam cookers, combination ovens) to reduce cycles and water use

Thaw frozen food in the refrigerator instead of under running water

Post Signage to Educate

https://www.epa.gov/watersense/fix-leak-week

Restroom Maintenance

Test

Test the water pressure serving each floor to achieve expected fixture performance – optimal pressure is between 20 and 80 psi

Inspect

Annually inspect valves and replace worn parts

Adjust automatic sensors on fixtures

Check

Check for tampering – sometimes users disable sensors, remove aerators, or otherwise damage fixtures

Remove

Regularly inspect for and remove scale build-up and biofilm on all fixtures especially faucets and showerheads

Stop Running Toilets!

Periodically check tank-type toilet fill valves and tank water levels

- Adjust the float lower if the water level is set above the overflow tube.
- A constantly running fill valve can waste between 0.5 and 3 gpm, wasting up to 4,300 gallons of water per day.

Use dye tablets or food coloring to test toilet flappers for leaks annually

- Small leaks from worn toilet flappers may be hard to detect, but they can waste approximately 30 gallons per day, or almost 900 gallons per month.

Replacing fill valves or installing a new flapper will pay for itself in avoided water and wastewater costs in one to two months

A running toilet at 0.5 gpm can waste 21,600 gallons of water per month!

Leaky Loo McFlapper leading the race to catch leaks in AZ

Stop Running Toilets!

- Flushometer-Valve Toilets and Flushing Urinals – Timed Flush Test
  - Count the number of seconds that elapse during flush cycle time
  - Multiply seconds by 0.42 for flushometer-valve toilets and 0.25 for urinals to get gallons per flush*
  - Some flushometer-valve toilets and urinals can run non-stop if they have worn parts!

Flush Volume	Expected Flush Time
Toilets	
1.6 gpf	4 seconds
1.28 gpf	3 seconds
1.1 gpf or less	2 to 2.5 seconds
Urinals	
1.0 gpf	4 seconds
0.5 gpf	2 seconds
0.25 or less gpf	1 second

* South Florida Water Management District *Water Efficiency and Self-Conducted Water Audits at Commercial and Institutional Facilities Guide* https://www.sfwmd.gov/documents-by-tag/waterefficiency

Adjust Automatic Sensors

- Automatic sensors are not intended for water efficiency; they are for hygiene
- Malfunctioning sensors can:
  - Flush toilets and urinals unnecessarily – known as double or phantom flushes
  - Run faucets longer than needed or cut off too early forcing users to use extra cycles
- Sensors can be disabled by dissatisfied users or cleaning staff
- **Calibrate sensors regularly** using the manufacturer's instructions

Low-Cost Restroom Retrofits

Product	Retrofit Option

Flushometer-valve toilets	• For toilet bowls marked 1.6 gpf or less, **if the manufacturer allows**, consider:
	  • Valve inserts with lower flush volumes (i.e., 1.28 gpf)
	  • Dual-flush retrofit kits

Urinals	• For urinals marked 1.0 gpf or less, **if the manufacturer allows**, consider valve inserts with lower flush volumes (i.e., 0.5 gpf)
Private-use faucets	• WaterSense labeled faucet accessory operating at 1.5 gpm or less
Public-use faucet	• 0.5 gpm faucet accessory
Showerheads	• Thermostatic shut-off valve

Average cost = $5-10 each

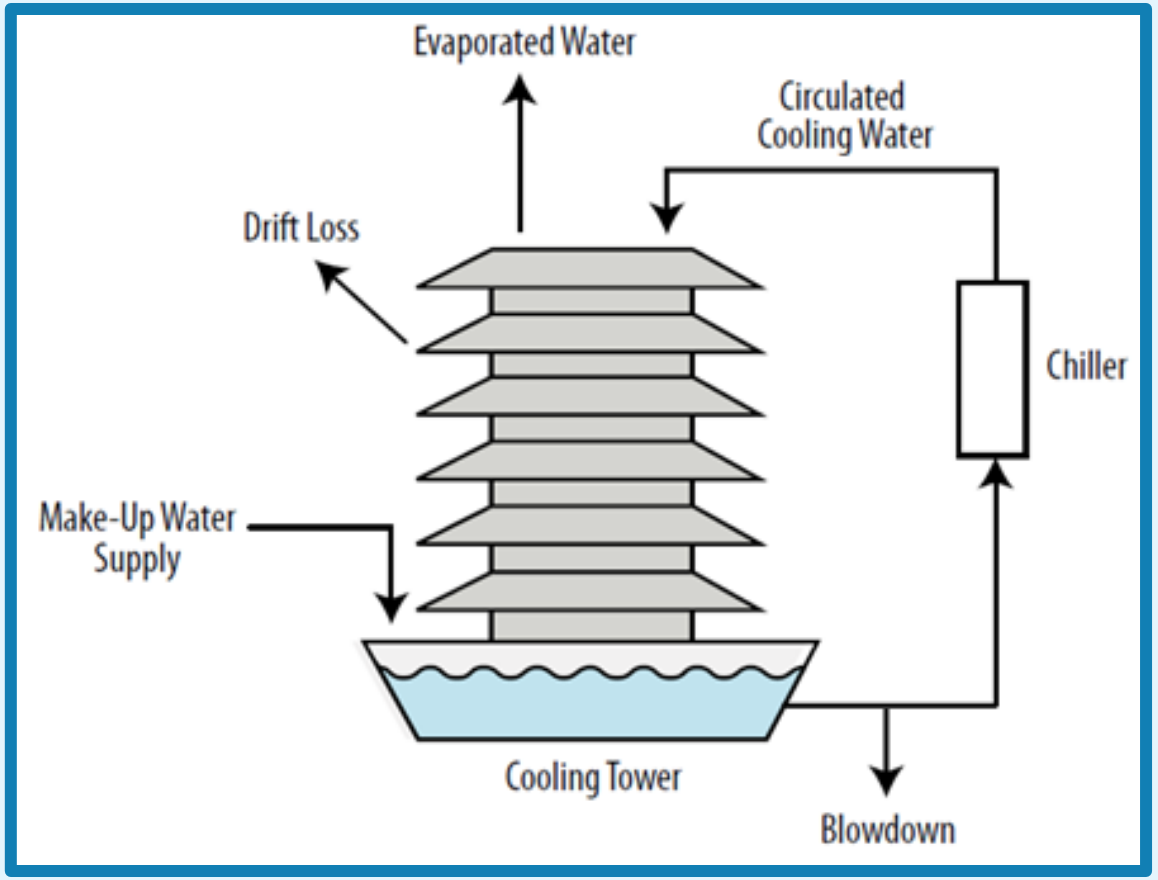
Cooling Towers

Cooling towers can account for **20-50%** of total facility water use

- High energy use to pump water continuously
- Evaporation is not the target for water efficiency
- Reduce drift and prevent overflow
- Monitor water chemistry and flow
- Maximize cycles of concentration

Optimize Cooling Towers

- **Cycles of concentration** is an indicator of the number of times water can be recirculated in the system before it's discharged to the sewer (limited by incoming water quality)
- Choose a water treatment vendor that specializes in water efficiency and wants to maximize cycles of concentration without sacrificing performance
- Read water chemistry reports to verify cycles of concentration goals



Working With Treatment Vendors

WATER TREATMENT SERVICE REPORT

Address: US EPA Region 6 Laboratory
10625 Fallstone Rd.
Houston, TX. 77099

Report Date: 10/4/2010

below target range
above target range

Copies To: Dan Peronis, Ashland File

System	Today's Sample	Average	# Samples in Average	Control Range
Make-Up Water				
pH	7.7	7.6	45	
Conductivity (umhos)	428	522	46	
Calcium Hardness (ppm)	0	13	44	
Total Alkalinity (ppm)	100	184	42	
Cooling Tower Water				
pH	9.10	9.0	45	8.5 - 9.5
Conductivity (umhos)	2755	2509	46	< 2750
Calcium Hardness (ppm)	16	14	41	< 40
ORP	194	171	44	record
Enviroplus 1503	5.9	6.1	46	4.5 - 6.0
Microbiological Counts (CFU/mL)	100	1188	30	<10,000

Savings Potential From Increasing Cycles of Concentration

Increasing cycles of concentration from 3 to 6 reduces cooling tower water usage by **20 percent**

	New Concentration Ratio (CRf)										
Initial Concentration Ratio (Cri)	2	2.5	3	3.5	4	5	6	7	8	9	10
1.5	33%	44%	50%	53%	56%	58%	60%	61%	62%	63%	64%
2.0	–	17%	25%	30%	33%	38%	40%	42%	43%	44%	45%
2.5	–	–	10%	16%	20%	25%	28%	30%	31%	33%	34%
3.0	–	–	–	7%	11%	17%	20%	22%	24%	25%	26%
3.5	–	–	–	–	5%	11%	14%	17%	18%	20%	21%
4.0	–	–	–	–	–	6%	10%	13%	14%	16%	17%
5.0	–	–	–	–	–	–	4%	7%	9%	10%	11%
6.0	–	–	–	–	–	–	–	3%	5%	6%	7%

Potential Cooling Tower Failure Points

Mechanical Failures

- Stuck or broken make-up or blowdown valve
- Faulty or incorrectly installed sensors
- Pump failures
- Pipe leaks
- Controller malfunction
- Chemical feed system issues

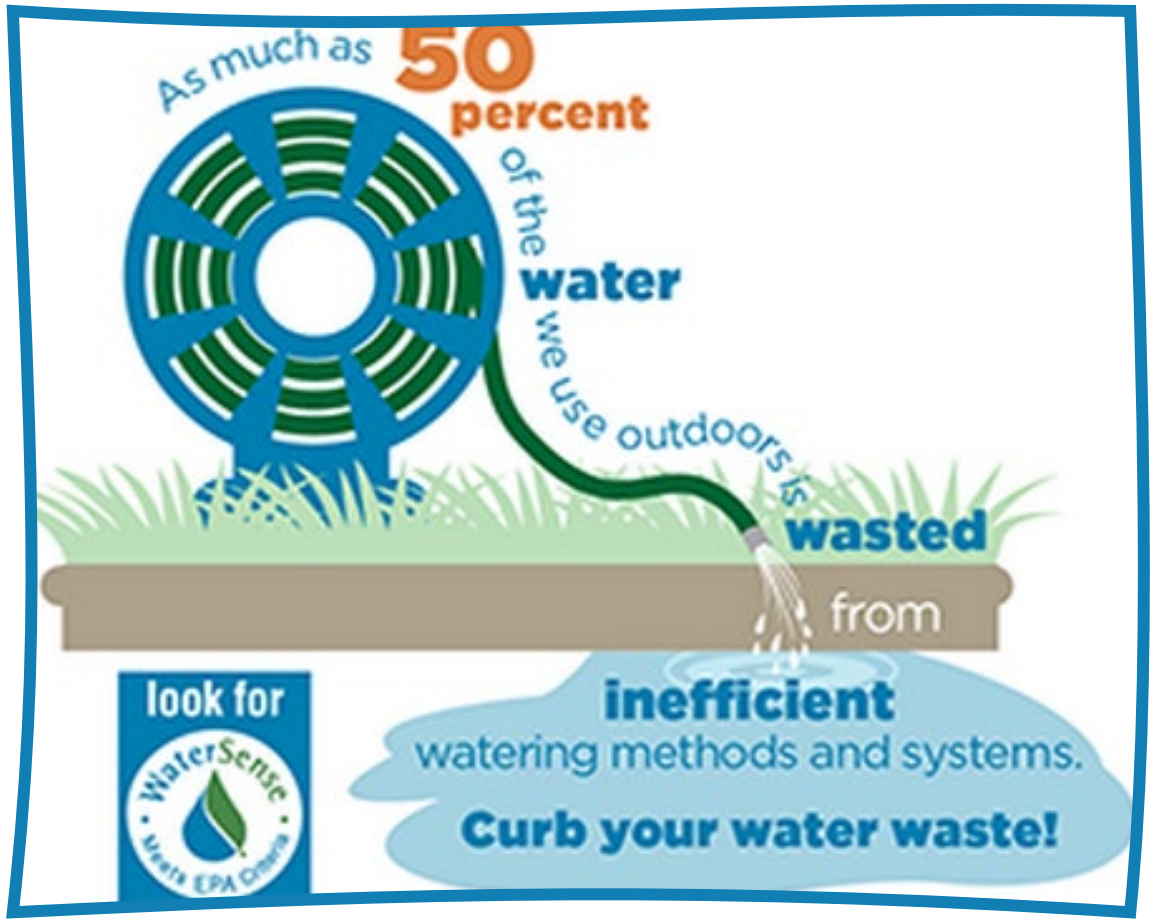
Operational Failures

- Incorrect set points
- Incorrect water level
- Chemical feed system issues

Recommendations

- Assign someone to be responsible!
- Check overflow drain as often as feasible
- Monitor meter readings and calculate cycles
- Evaluate whether conductivity set point is being achieved

Irrigation Efficiency

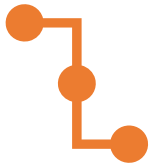


Find Outdoor Water Waste

- Check the system for broken or clogged sprinkler heads
- Make sure sprinkler heads do not tilt too high or too low
- Move or adjust sprinkler components to avoid watering pavement
- Look for pooling and puddling
- Audit your irrigation system using an irrigation professional certified by a WaterSense labeled program every 3 years

www.epa.gov/watersense/find-pro

Irrigation Efficiencies



Irrigation system operation

Update irrigation schedules regularly to account of weather changes

Schedule each individual zone separately

Install and monitor submeters to indicate inefficiencies or leaks

Irrigation controllers

Replace traditional manual or clock timers with WaterSense labeled controllers

Install rain shutoff devices or sensors

Sprinklers

Check the pressure in the irrigation system – high or inconsistent pressure wastes water

Install WaterSense labeled spray sprinkler bodies to maintain constant pressure and flow

Quick Wins - Commercial Water Conservation

Dr. Delorean S. Wiley

WaterSense Webinar

Austin WATER

March 26, 2025

New ICI Program Manager

Dr. Delorean S. Wiley
Ph.D. Geography, Texas State University
M.S. Sustainability, Texas State University
B.S. Agribusiness, Texas A&M University
10+ years business experience across Agribusiness and IT

City of Austin | Austin Water
512-972-0449 |
Delorean.Wiley@austintexas.gov

Program Trends

- Decline since COVID pandemic
- A lot of guesses why
- Little data to support any hypothesis

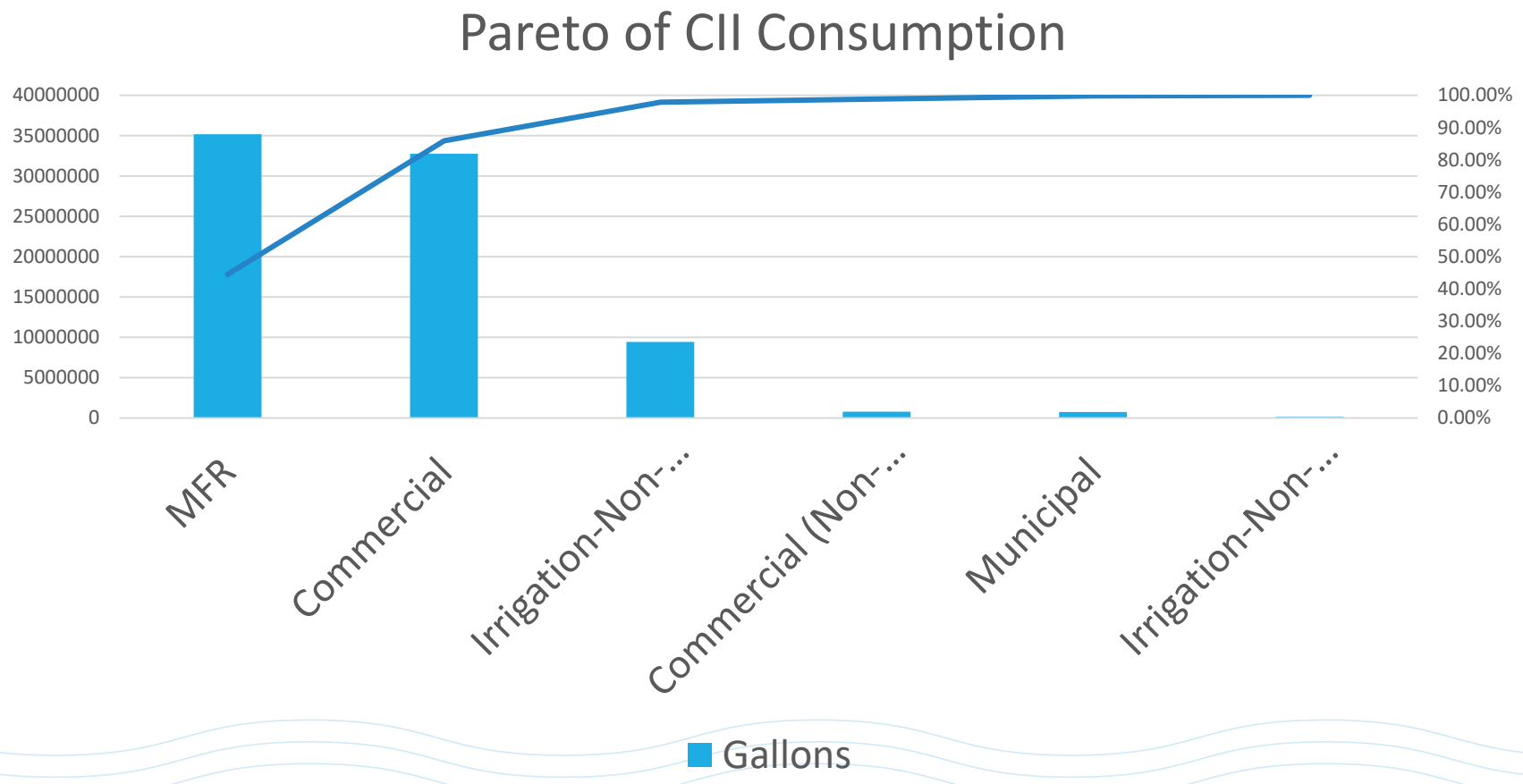
Incentives and Rebates

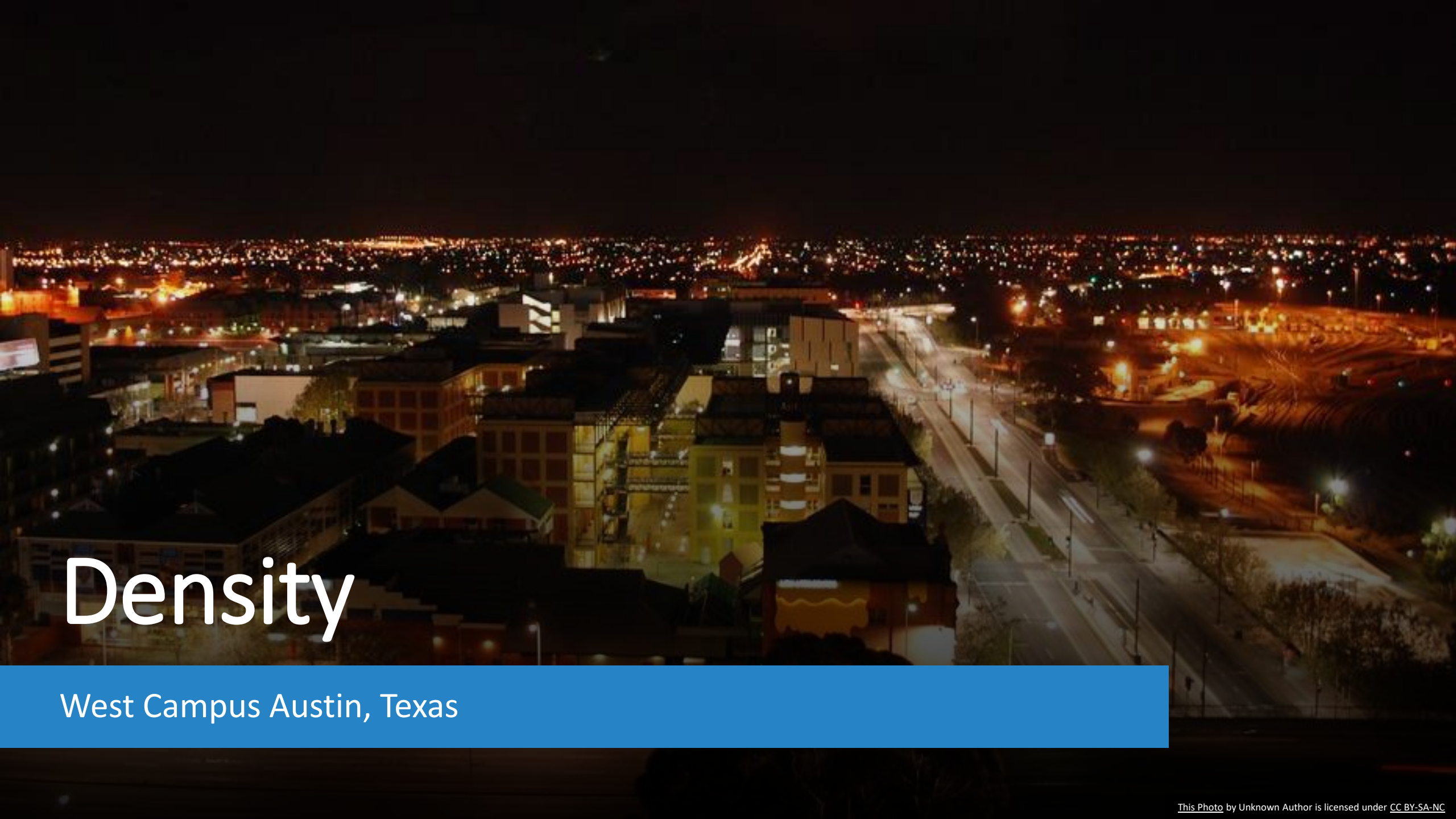
- WaterWise Landscape (HOA only) & Rainscape (schools only)
- Bucks for Business
- Cooling Towers & Alternative Cooling Systems
- Commercial Kitchen
- Irrigation System Improvement
- Rainwater Harvesting
- Water Efficiency Audit
- Cartridge Pool Filter
- Pressure Regulating Valve
- Voluntary Reclaimed Connection Pilot

Consolidate Rebates

- Water Efficiency “Evaluation”
  - Benchmark
- Bucks for Business
  - Performance Based
- Reclaim Connection
  - Outdoor Use

Using Data for Decision Making

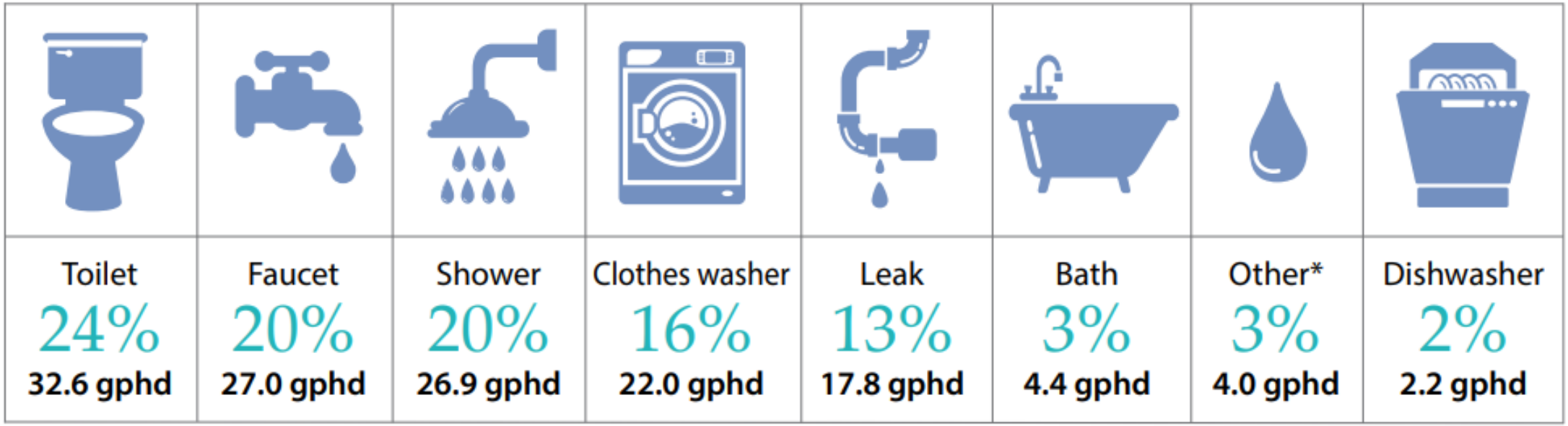




Density

West Campus Austin, Texas

Indoor Water Use

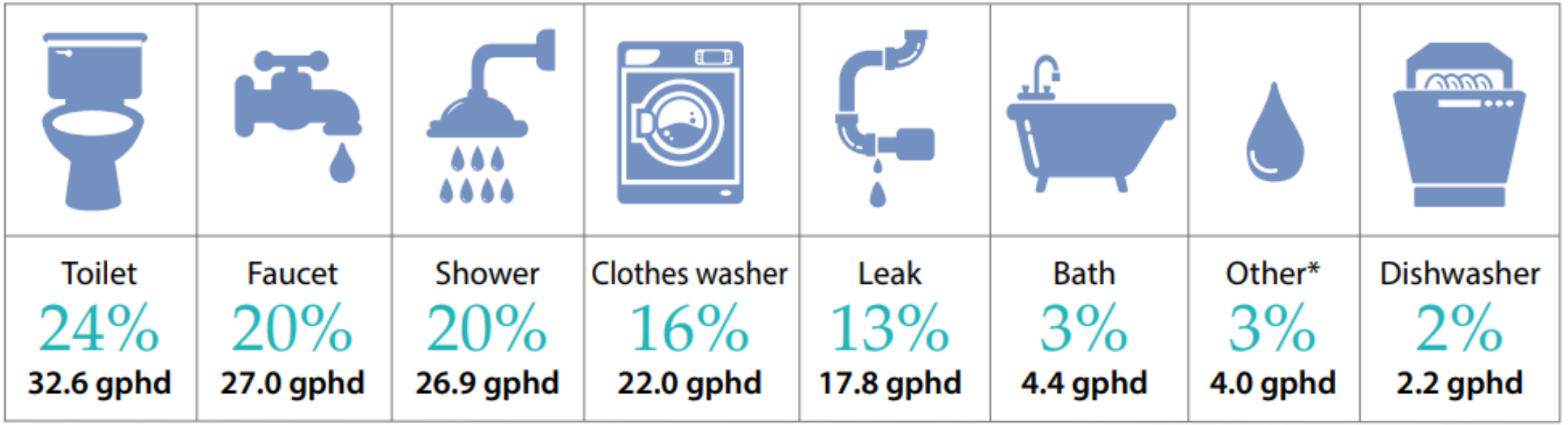


Toilet	Faucet	Shower	Clothes washer	Leak	Bath	Other*	Dishwasher
24%	20%	20%	16%	13%	3%	3%	2%
32.6 gphd	27.0 gphd	26.9 gphd	22.0 gphd	17.8 gphd	4.4 gphd	4.0 gphd	2.2 gphd

Source: Water Research Foundation, 2016

- Behavior is different if not directly paying the bill
- Leaks are often reported late or go unreported
- Toilets are often the culprit and simple to fix

Indoor Water Use



Toilet	Faucet	Shower	Clothes washer	Leak	Bath	Other*	Dishwasher
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Source: Water Research Foundation, 2016

- Behavior is different if not directly paying the bill
- Leaks are often reported late or go unreported
- Toilets are often the culprit and simple to fix

MFR Indoor Efficiency

- Student Housing
- Subsidized Housing

Results

- 14 of 16 properties had real measurable savings
  - ~7 million gallons in one year
- Seasonality in usage

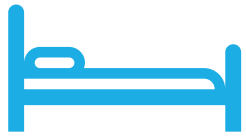
13% savings in student housing overall

Subsidized housing properties saw savings between 30-45%

*Also changed out showerheads and aerators.

Deeper Dive

- **Apartment Style**
  - Flow management device was savings 25%, within its stated savings range.
  - Buildings with increase most likely have other things driving usage



- **Dorm Style**
  - Meters had not been changed to AMI yet
  - Leak detection versus behavior change – unknown driving force until upgraded

Targeted Outreach

- Work on continued relationship through tabling events
- Fall back in love with water savings

ENERGY STAR® Portfolio Manager®

Source : Water Score for Multifamily Housing | US EPA

Water Efficiency and the Water Budget

- Benchmarking
- S.M.A.R.T. Reduction Goals
- Continuous Monitoring and Improvement

What You Can Do Right Now

- Review your water bills and/or AMI data to identify large leaks
- Ensure facility walk-throughs include looking and listening for leaks at all water end uses
- Ensure facilities management staff, housekeeping and cleaning staff, kitchen staff, and all employees are prioritizing water efficiency and reporting leaks
- Find and fix leaks immediately!
- Ensure your cooling tower water chemistry vendor and landscape/irrigation contractor share your goals of water and cost savings
- Implement low-cost O&M and retrofit projects—check with your utility for rebates and incentives!

Tools for Getting Started

Fix a Leak Week

Leaks Can Run, but They Can't Hide

Are you ready to chase down leaks? Household leaks can waste nearly 1
hunt down the drips during Fix a Leak Week. Mark your calendars for EP
remember that you can find and fix leaks inside and outside your home

From family fun runs to leak detection contests to WaterSense demonst
are all geared to teach you how to find and fix household leaks. See our
view past events!

Learn how to find and fix leaks during Fix a Leak Week. It's as easy as 1-

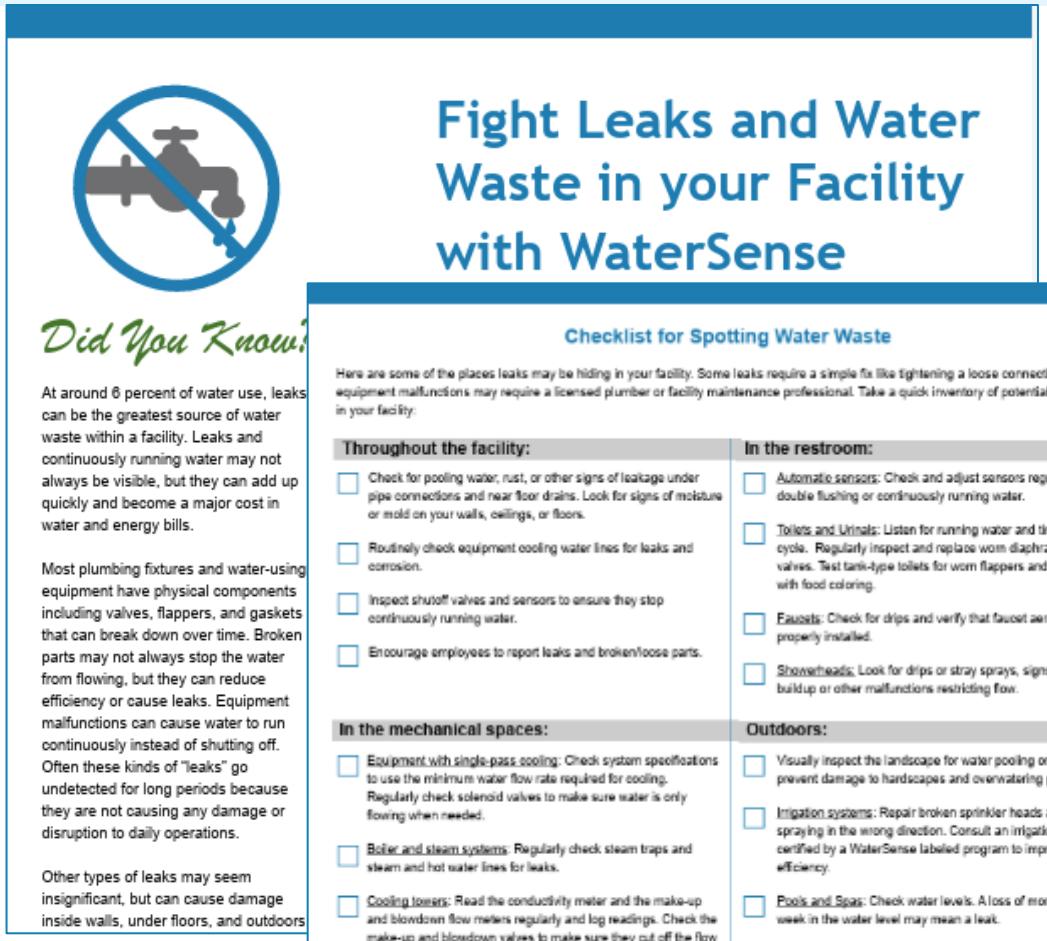
In the Workplace

Leaks don't just happen at home. You should be on the lookout for leaks even when you are at work. Here are some ways to help find and fix leaks in your workplace.

- If you see a leak–in the restroom, pantry, or outdoors–report it to your maintenance staff.
- Organize a Fix a Leak Week event in your facility to challenge employees and tenants to find leaks and report water waste. You may even be able to get your local water utility to help.
- Post signs in restrooms and pantries to encourage everyone to look for leaks and report problems. Include information on who they should contact. WaterSense developed some graphic tools you can use to communicate with employees on the need to report leaks.
  - Fix a Leak Week Commercial Resources (zip)
- Spread the word about saving water to all tenants, as well as cleaning, housekeeping, maintenance, landscaping staff, and contractors.
- Use our checklists to keep track of areas to check for leaks: Fight Leaks and Water Waste in your Facility Checklist(2 pp, 638 K, About PDF) and Stop, Look, and Listen for Leaks! (pdf) (485.04 KB)
- Interested in knowing more about how to fight leaks and water waste in commercial buildings? We have advice to help you get started.

https://www.epa.gov/watersense/fix-leak-week#In%20The%20Workplace

Tools for Getting Started



Fight Leaks and Water Waste in your Facility with WaterSense

Did You Know?

At around 6 percent of water use, leaks can be the greatest source of water waste within a facility. Leaks and continuously running water may not always be visible, but they can add up quickly and become a major cost in water and energy bills.

Most plumbing fixtures and water-using equipment have physical components including valves, flappers, and gaskets that can break down over time. Broken parts may not always stop the water from flowing, but they can reduce efficiency or cause leaks. Equipment malfunctions can cause water to run continuously instead of shutting off. Often these kinds of "leaks" go undetected for long periods because they are not causing any damage or disruption to daily operations.

Other types of leaks may seem insignificant, but can cause damage inside walls, under floors, and outdoors

Checklist for Spotting Water Waste

Here are some of the places leaks may be hiding in your facility. Some leaks require a simple fix like tightening a loose connection, but other equipment malfunctions may require a licensed plumber or facility maintenance professional. Take a quick inventory of potential water waste in your facility:

Throughout the facility:

- ☐ Check for pooling water, rust, or other signs of leakage under pipe connections and near floor drains. Look for signs of moisture or mold on your walls, ceilings, or floors.
- ☐ Routinely check equipment cooling water lines for leaks and corrosion.
- ☐ Inspect shutoff valves and sensors to ensure they stop continuously running water.
- ☐ Encourage employees to report leaks and broken/loose parts.

In the mechanical spaces:

- ☐ Equipment with single-pass cooling: Check system specifications to use the minimum water flow rate required for cooling. Regularly check solenoid valves to make sure water is only flowing when needed.
- ☐ Boiler and steam systems: Regularly check steam traps and steam and hot water lines for leaks.
- ☐ Cooling towers: Read the conductivity meter and the make-up and blowdown flow meters regularly and log readings. Check the make-up and blowdown valves to make sure they cut off the flow of water cleanly.

In the kitchen:

- ☐ All equipment: Shut down or use standby mode for all continuous flow equipment between uses. Inspect shutoff valves to ensure they are working properly.

In the restroom:

- ☐ Automatic sensors: Check and adjust sensors regularly to avoid double flushing or continuously running water.
- ☐ Toilets and Urinals: Listen for running water and time the flush cycle. Regularly inspect and replace worn diaphragm or piston valves. Test tank-type toilets for worn flappers and other leaks with food coloring.
- ☐ Faucets: Check for drips and verify that faucet aerators are still properly installed.
- ☐ Showerheads: Look for drips or stray sprays, signs of scale buildup or other malfunctions restricting flow.

Outdoors:

- ☐ Visually inspect the landscape for water pooling or puddling to prevent damage to hardscapes and overwatering plants.
- ☐ Irrigation systems: Repair broken sprinkler heads and nozzles spraying in the wrong direction. Consult an irrigation auditor certified by a WaterSense labeled program to improve system efficiency.
- ☐ Pools and Spas: Check water levels. A loss of more than 2" per week in the water level may mean a leak.

Find more information about water-efficient best practices, tools and case studies on the WaterSense website

WaterSense Commercial Facility Leaks Checklist included in Fix a Leak Week Resources

Tips to Identify and Address Potential Water Waste	Section of *WaterSense at Work*[1]	Done ✓	Notes
SANITARY FIXTURES			
10. Post signs in restrooms to instruct users to report leaks and continuously flushing fixtures.	3.2 – 3.4		
11. **Tank-type toilets:** Check tank-type toilets regularly for leaks, broken flappers, and other parts failures. Annually test toilets using a dye test to ensure the flappers are not worn or allowing water to seep from the tank into the bowl and down the sewer. Drop a dye tablet or several drops of food coloring in the tank. After 10 minutes, see if the dye has leaked into the bowl, which indicates a leak. Flush immediately.	3.2		
12. Check the toilet fill valves for water overflow to make sure fill valves are not running constantly.	3.2		
13. **Flushometer-valve toilets and urinals:** Inspect diaphragm or piston valves annually and replace any worn parts. To determine if the valve needs replacement, time the complete flush cycle. A properly functioning flushometer valve toilet should not have a flush cycle longer than four seconds for a 1.6 gallon per flush (gpf) valve and three seconds for a 1.28 gpf valve. A urinal flush cycle should be completed in three seconds for a 1.0 gpf valve and two seconds for a 0.5 gpf valve. If longer, check the flush volume adjustment screw or consider replacing the valve or valve insert.	3.2 – 3.3		
14. Periodically check to ensure the control stop (which regulates the flow of water from the inlet pipe to the flushometer valve) is set to fully open during normal operation.	3.2 – 3.3		
15. Periodically inspect the flush volume adjustment screw to ensure the flush volume setting has not been modified from the original settings to use more water per flush than needed.	3.2 – 3.3		
16. If replacing valves or valve inserts, make sure the new ones are consistent with the manufacturer's specifications. Ensure the rated flush volume matches the acceptable range for the fixture.	3.2 – 3.3		

WaterSense Operations and Maintenance Checklist included on WaterSense's Tools for CI Facilities page at https://www.epa.gov/watersense/tools-ci-facilities

Water Wednesdays

- Recorded webinars from 2024 available at https://www.epa.gov/watersense/webinars on these topics:
  - Water and Cost Savings From Capital Improvement Projects
  - Conducting a Water Assessment
  - Using Water Wisely Outdoors
  - Saving Water and Costs in Restrooms
  - Minimizing Water Use for Building, Process, and Equipment Cooling
  - Using Portfolio Manager® to Understand Water Use Intensity
  - Advanced Metering Infrastructure
- Register for 2025 Water Wednesday webinars when links available. Look out for email announcements.
  - Contact us to become a case study speaker!

Contact Us

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