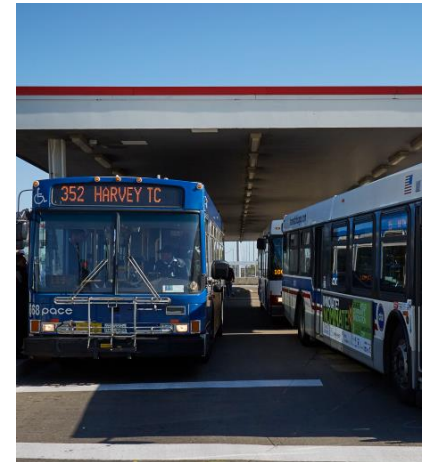


NWPA Water Supply Sustainability Plan – Implementation Approaches

March 28, 2024

NWPA Executive Committee meeting



Agenda

- NWPA water use sectors
- WSSP audience
- Water conservation strategy overview
- Implementation approaches

NWPA water use sectors

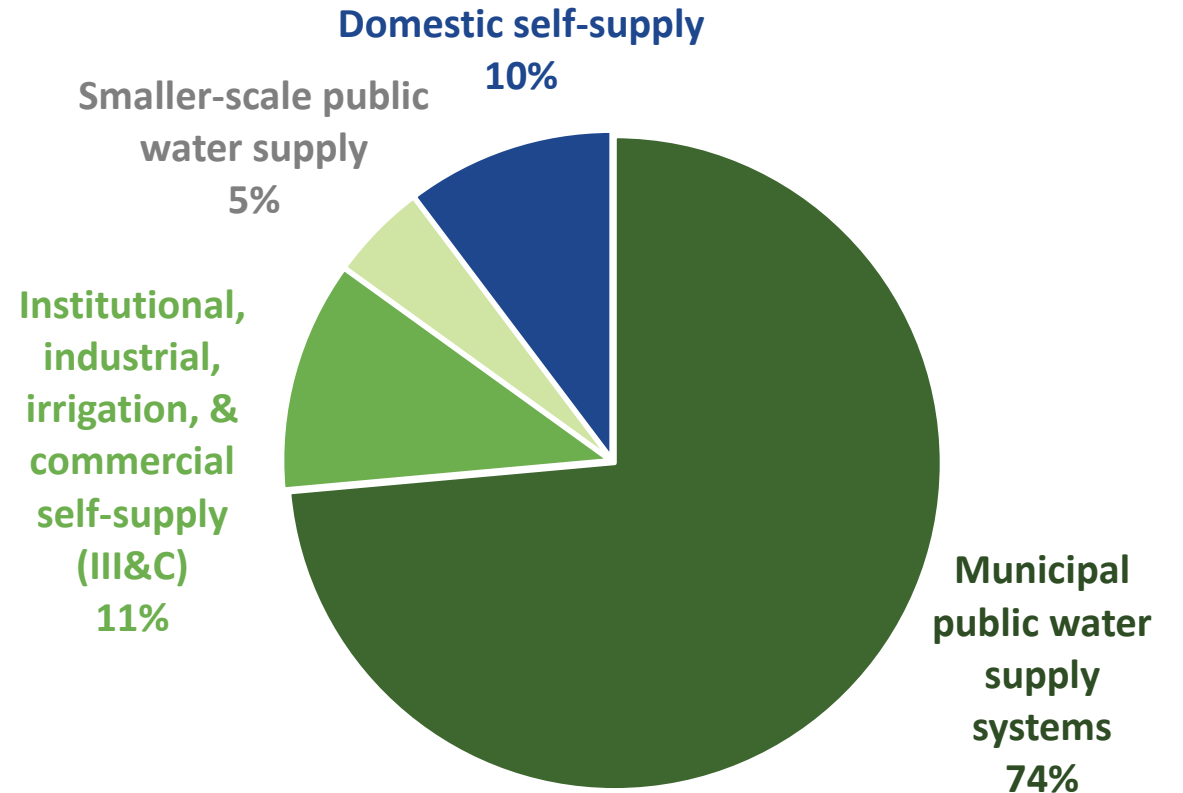
Municipal public water supply systems

Smaller-scale public water supply

Industrial, Institutional, Irrigation & Commercial self-supply (III&C)

Domestic self-supply

Percentage of NWPA's historic water use by sector^a in MGD, 2018^b



Source: ISWS Illinois Water Inventory Program (IWIP) water withdrawal data, 2018; USGS National Water Use Information Program (domestic self-supply sector, only)

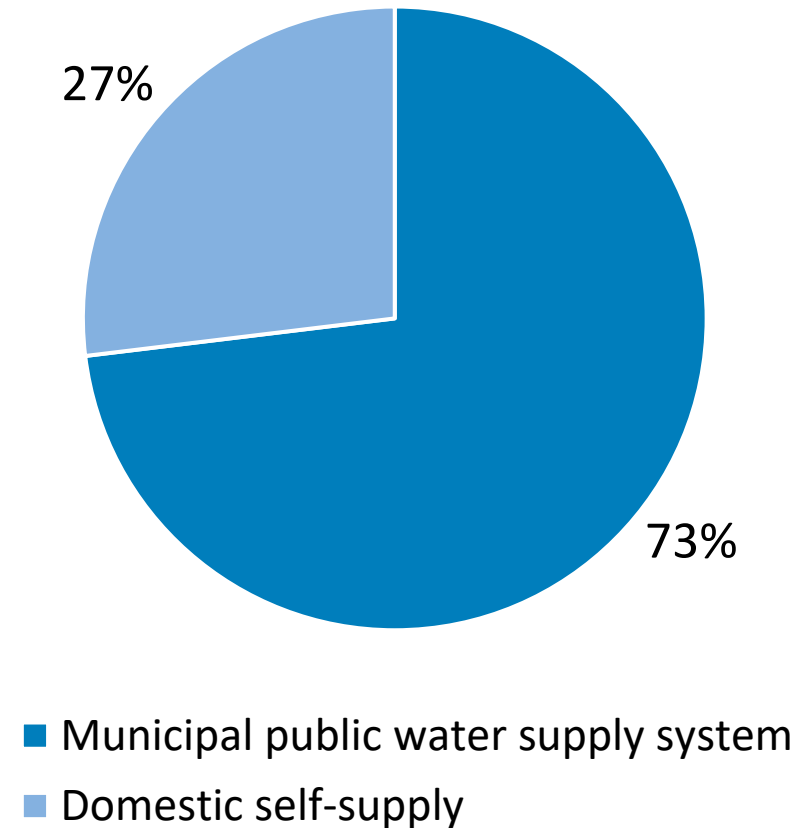
- a. The NWPA region is defined as the geography of the five county members.
- b. Breakdown excludes power generation.

WSSP audience

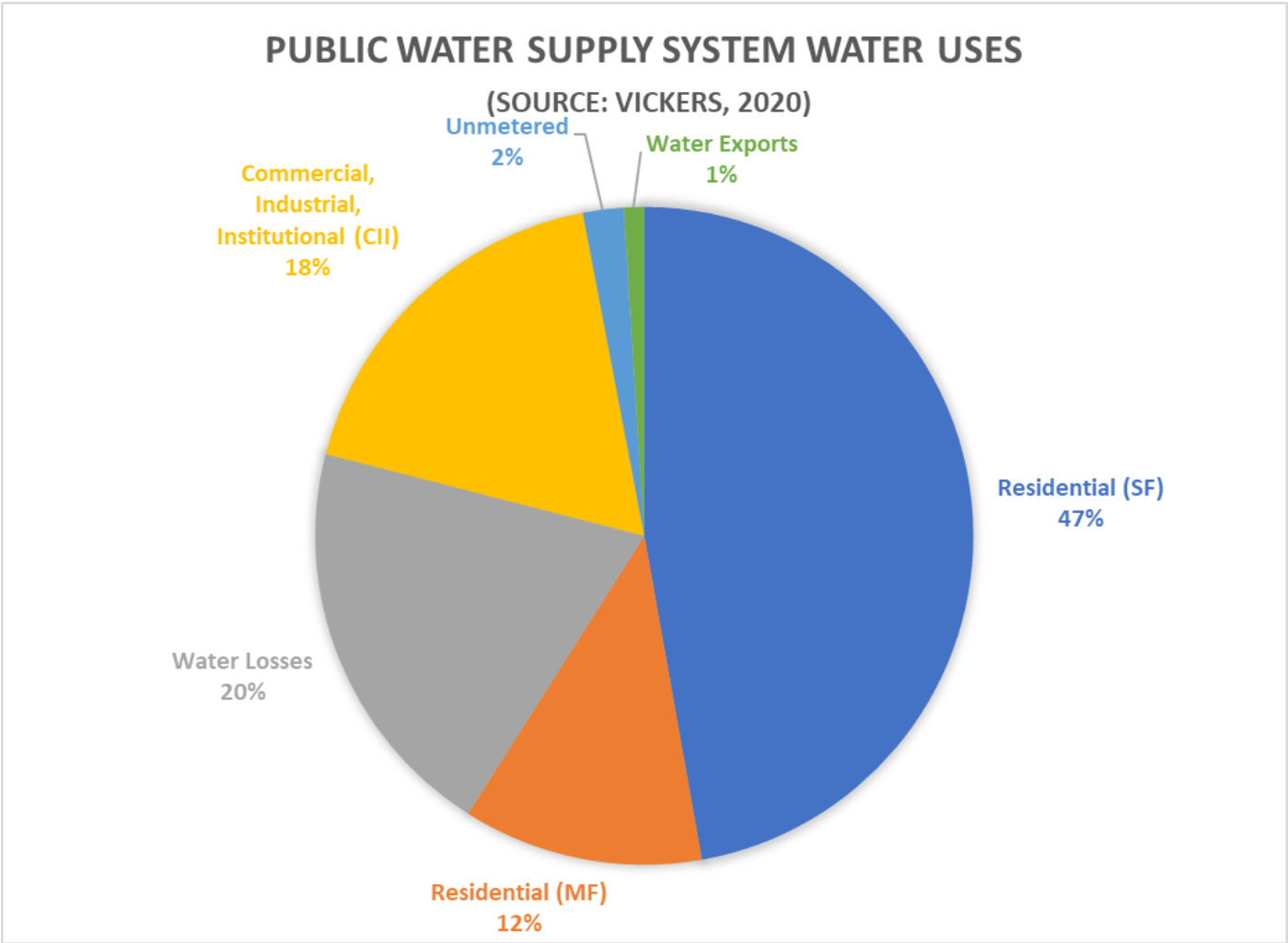
NWPA communities with municipal public water supply systems

- Serve a variety of residential and non-residential uses
- Provide service coverage for the majority of a given municipal area

Percentage of NWPA member communities by water supply system type



How do public water supply systems use water?



Water conservation strategies

Residential users



Residential retrofits



Landscape water efficiency



New development standards

CII users



Commercial, industrial, & institutional (CII) conservation programs

Water system



Water loss control



Costing and pricing



Information and education

Implementation approaches

Implementation approaches

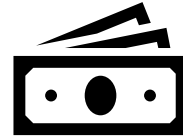
Levers and tools communities can use to implement water conservation strategies and measures

Implementation approaches

Levers and tools communities can use to implement water conservation strategies and measures



Technical assistance



Incentives



Voluntary programs



Local policies



Information and education

Technical assistance

What does the approach entail?	Examples of technical assistance	Who can implement the approach?
<p>Provide water users with experts/guidance to:</p> <ul style="list-style-type: none">• Assess existing water use and/or conditions of water systems and technologies• Identify the most applicable water conservation measures (based on assessment)	<ul style="list-style-type: none">• Water loss audits• Indoor/outdoor leak detection• Landscape assessments• Installation of water-efficient devices	<ul style="list-style-type: none">• Counties• Municipalities• Water utilities• Third-party (partners, contractors, non-profits, research/educational institutions)

Case study: Healthy Landscape Assessment Program (Guelph, Canada)

Background:

- Rely on groundwater and seeking to delay finding new sources
- Ensure adequate supply for future growth and climate change events

Strategy and approach used: Free on-site, 45-minute consultation designed to assist in establishing low-water and natural pesticide-free outdoor areas

Savings: Average participant savings was 6.9% (10.3 gpd/meter).



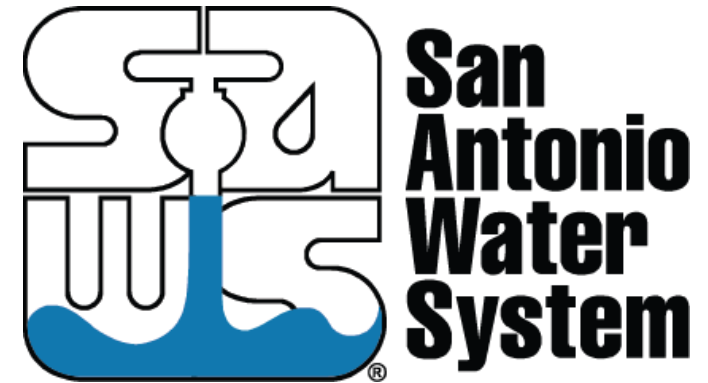
Case Study: San Antonio Water System (SAWS) Commercial Rebates and Audits Program

Background:

- 10 percent of the SAWS customer base are commercial customers
- Account for 40 percent of annual water sales

Strategies and approaches used:

- Provide commercial businesses that use SAWS potable water with free cooling tower audits
- Offer businesses a “custom” rebate program to encourage the installation of water-saving equipment



Source: sanantonio.gov

Incentives

What does the approach entail?	Examples of incentives	Who can implement the approach?
Use of financial rewards to promote the adoption/implementation of water conservation measures	Discounts, rebates, reimbursements, and tax credits for <ul style="list-style-type: none">• Purchase and installation of water-efficient fixtures, devices, or equipment• Conducting water audits	<ul style="list-style-type: none">• Counties• Municipalities• Water utilities• Third-party (non-profits, research/educational institutions)

Case study: Low Flow Toilet Rebate Program (Joliet, IL)

Background:

- Seeking to decrease demand on city's depleting groundwater source

Strategy and approach used:

- Offers a \$100 rebate to water customers who replace a high-volume toilet (>1.6 gallon/flush) with a WaterSense-certified high-efficiency toilet (1.28 gallon/flush).

FREQUENTLY ASKED QUESTIONS:

Rethink water by replacing older model toilets with WaterSense certified toilets to conserve water. The City of Joliet is offering a low flow

Program Details:

- A \$100.00 rebate will be offered to water customers who replace a high volume toilet (>1.6 gallons/flush) with a high efficiency toilet (1.28 gallon/flush)

WaterSense® TOILET REBATE PROGRAM

JOLIET

Low Flow Toilet Rebate Program

RECEIVE A \$100 REBATE

FOR EVERY TOILET YOU REPLACE

City of Joliet
Department of Public Utilities
www.joliet.gov/utilities

How to apply:

- Contact the Department of Public Utilities at 815-724-4220 to schedule an inspection to confirm eligibility. The inspections will be completed by the City's licensed plumbers. Inspection appointments are available Monday - Friday between 8:00 am and 3:00 pm
- Rebate applications will be mailed to customers who are confirmed to be eligible for the program.
- Complete toilet replacement.
- Contact the Department of Public Utilities to schedule a post replacement inspection to confirm installation of a WaterSense toilet.
- Mail the rebate application to the City of Joliet with an original or copy of the dated sales receipt (dated on or after March 15, 2019) listing the make and model numbers.
- Rebate checks will not be mailed until the post installation inspection is completed.

All Low Flow Toilet Rebate program information is available on the City of Joliet website at:

www.Joliet.gov/Utilities and click Customer Programs or scan

Contact Us:

City of Joliet - Dept. of Public Utilities
150 W. Jefferson Street
Joliet, IL 60432
Phone: (815) 724-4230
Email: publicutilities@joliet.gov

ReThinkWaterJoliet.org

nt. Rebates are used
new toilet
flush. In order r a flush volume uld be a stamp 1.6 gpf/ 6.0 lpf" v-flow model.
omer of the City rs with past due

sense/products-

[rethink water JOLIET](http://rethinkwaterjoliet.org)

Case study: Municipal leak detection and repair rebate program (Oregon)

Background:

- Goal of addressing water leaks to improve energy performance of water and wastewater treatment facilities across Oregon municipalities

Strategies and approaches used:

- Energy Trust of Oregon offers municipalities a once-a-year \$1,000 rebate for the cost of assessing and repairing underground water leaks



Source: Energy Trust of Oregon

Voluntary programs

What does the approach entail?	Examples of voluntary programs	Who can implement the approach?
Use and promotion of existing water conservation programs to achieve water use reductions	<ul style="list-style-type: none">• Conservation@Home• EPA's WaterSense Homes• EPA's WaterSense at Work• LEED and other 3rd-party certifications	<ul style="list-style-type: none">• Counties• Municipalities• Water utilities• Developers• Water users/customers

Case Study: Green Restaurant Association

Background:

- The Green Restaurant Association is a non-profit organization with the goal of encouraging restaurants to become more environmentally sustainable

Strategies and approaches used:

- Administers a certification program for restaurants, which includes water efficiency
 - Water efficient kitchen appliances and fixtures
 - Water efficient restroom fixtures
 - Water efficient landscaping practices



Source: dinegreen.com

Local policies

What does the approach entail?	Examples of local policies	Who can implement the approach?
Use of local codes and standards to increase the adoption, and enable enforcement, of water conservation measures	<ul style="list-style-type: none">• Outdoor lawn and watering ordinances• Water-efficient building codes• Water-efficient plumbing standards	<ul style="list-style-type: none">• Counties• Municipalities

Case study: Sustainable Desert Development Policy (Phoenix, AZ)

Background:

- Advance drought management and water conservation goals
- Support sustainable development

Approach used: Policy requires new development to meet EPA WaterSense Homes, or an equivalent, certification as a stipulation in all rezoning cases



Source: CDP

Information and education

What does the approach entail?	Examples of information and education	Who can implement the approach?
<p>Use/reliance on information and educational tools to increase the implementation of water conservation</p>	<ul style="list-style-type: none">• Workshops/webinars on specific water conservation activities• Water bill inserts on outdoor water use• Water bill reading tutorials• Pamphlets, social media posts, etc.	<ul style="list-style-type: none">• Counties• Municipalities• Water utilities• Third-party (partners, contractors, non-profits, research/educational institutions)

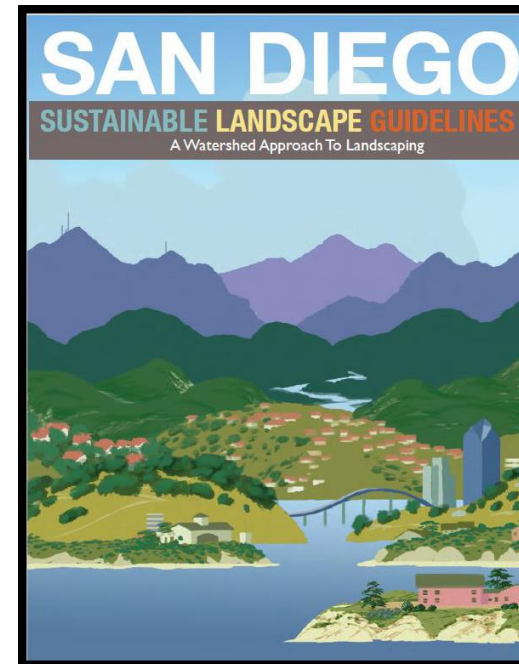
Case Study - Sustainable Landscape Program (San Diego County, CA)

Background: Promotes outdoor water efficiency through a suite of landscaping and irrigation measures

Approaches used:

- Rebate for landscape improvements (upon inspection and education requirements)
- Education includes a series of classes, a design workshop, and online videos

Savings: Average participant savings was 34.8% (114.8 gpd/meter)



Case study: Texas outdoor watering ordinance and education

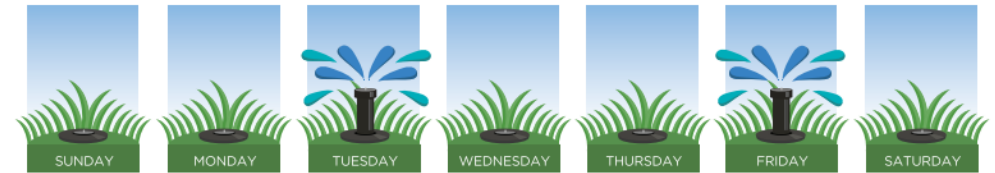
Background: Seeking to ensure adequate supply and reduce demand through outdoor water use

Approach used: ordinance limiting watering to no more than 2x per week, year-round

Savings: 7.5-16.6% savings in average annual single-family residential demand

- Range assumes low (7.5%) and high (16.6%) education/enforcement

WATER CONSERVATION BY THE YARD:



A STATEWIDE ANALYSIS OF OUTDOOR WATER SAVINGS POTENTIAL





Chicago Metropolitan
Agency for Planning



Thank you!

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kpudlock@cmap.illinois.gov

[@cmapillinois](https://twitter.com/cmapillinois) |    

