



Evaluating Urban Best Practices *Climate Adaptation Strategies*

Liz Crosson, Chief Sustainability, Resilience and Innovation Officer

Metropolitan Water District of Southern California

Metropolitan Overview



- Nation's largest wholesaler of water
- 6 counties/ 26 member agencies
- 19 million people / 5,200 square miles
- \$1 trillion regional economy
- Imports water from Northern Sierra and the Colorado River, invests in local projects

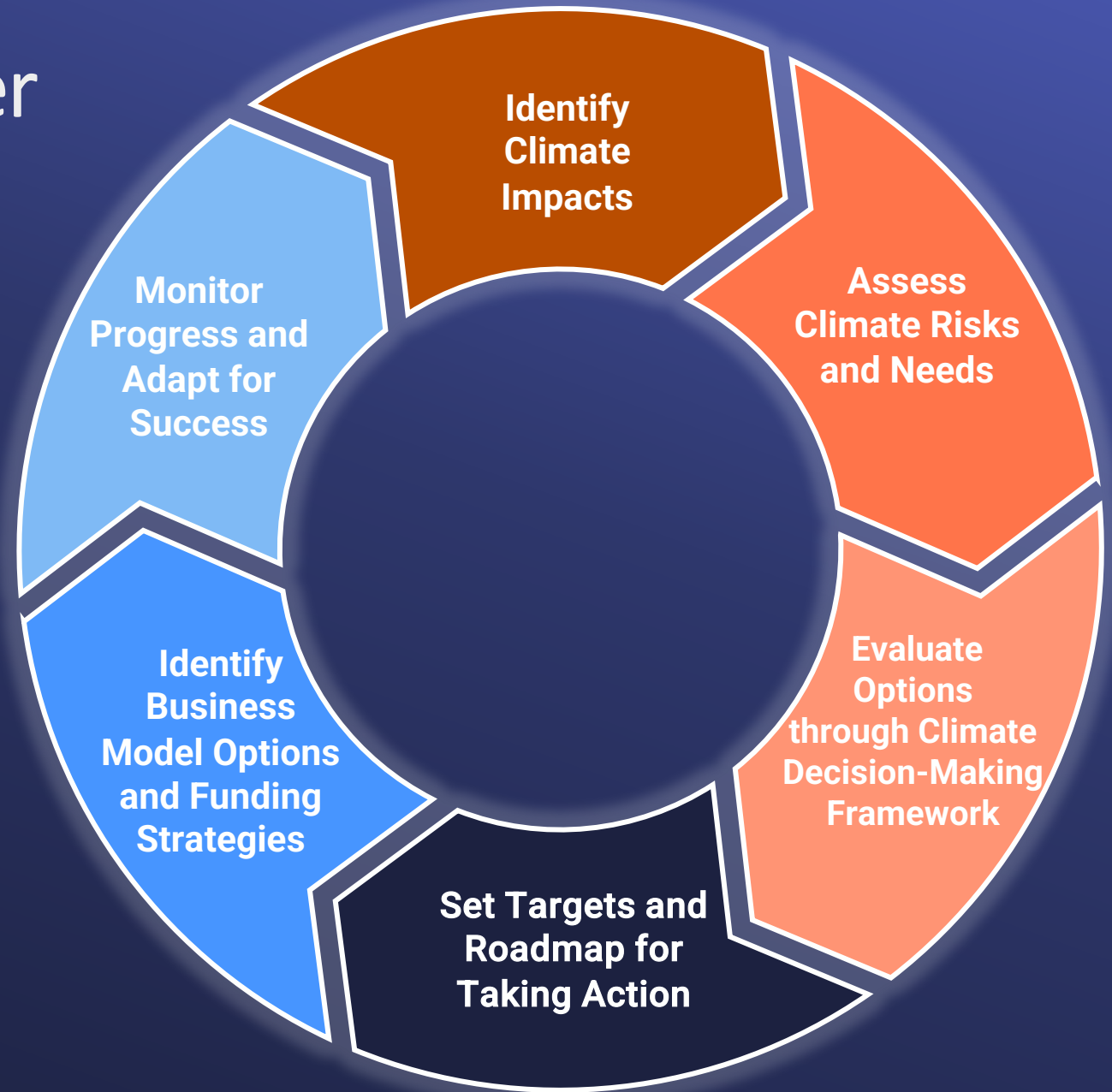
Climate Adaptation Master For Water

A comprehensive, adaptive planning process

The CAMP4W integrates

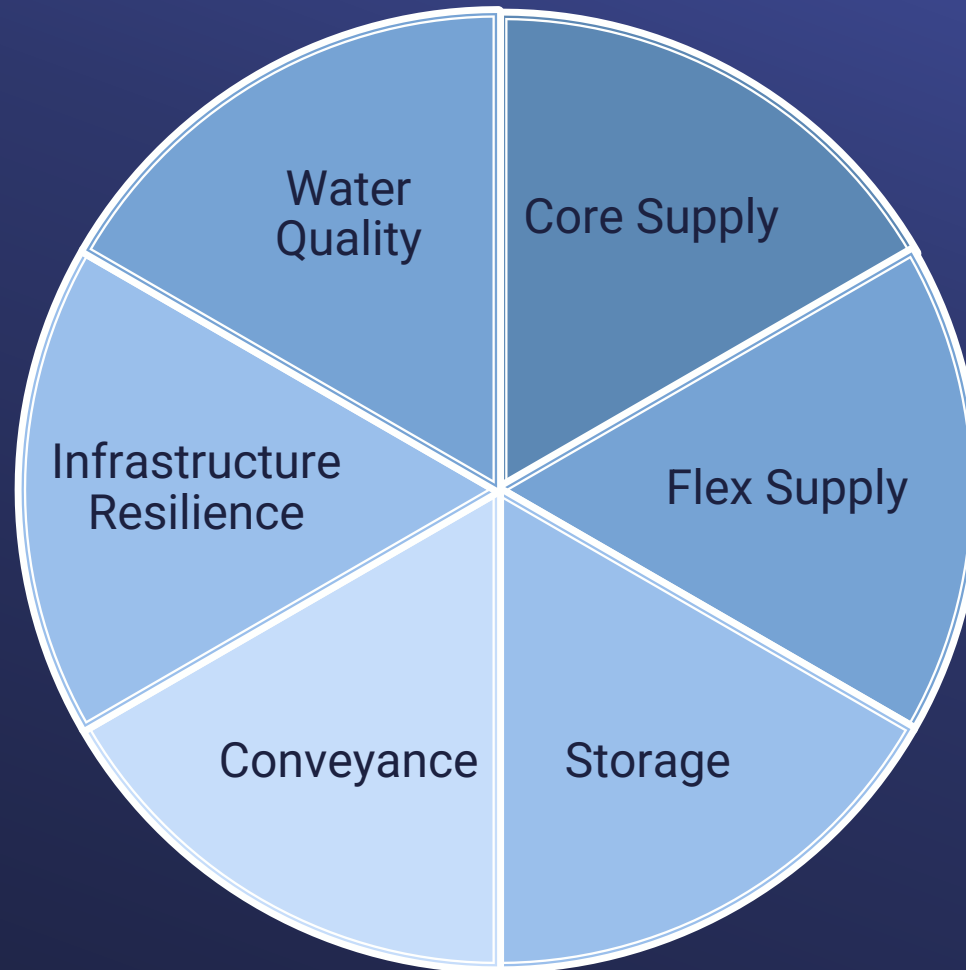
- water resources planning
- infrastructure development
- climate adaptation
- finance planning

into one interconnected process.



Climate Decision- Making Framework

The process by which Metropolitan assesses investment decisions through a methodical, data driven manner while accounting for climate risks and vulnerabilities, Board preferences and financial implications

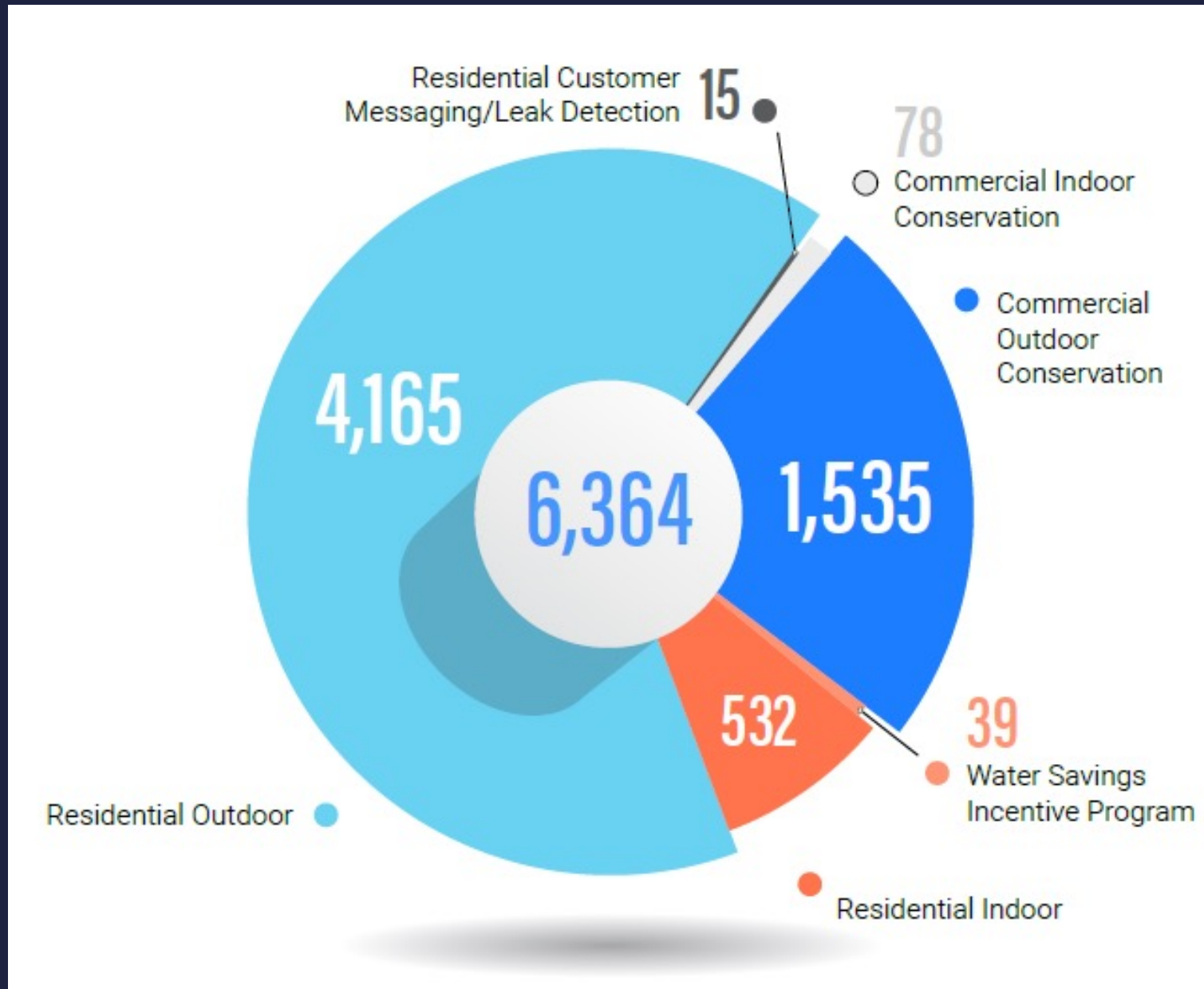


Programs and Project Types will be evaluated through the Climate Decision-Making Framework

Progress could be measured against Time-Bound Targets

Metropolitan's Investment in Conservation

New Water Savings in Acre-feet
for
Fiscal Year 2021/22



California State Legislation on Non-Functional Turf

- Metropolitan co-sponsored AB 1572 with environmental NGO partners
- Prohibits the use of potable water to irrigate any NFT on Commercial, Industrial, Institutional properties
- Excludes Multi-family housing
- Passed September 2023



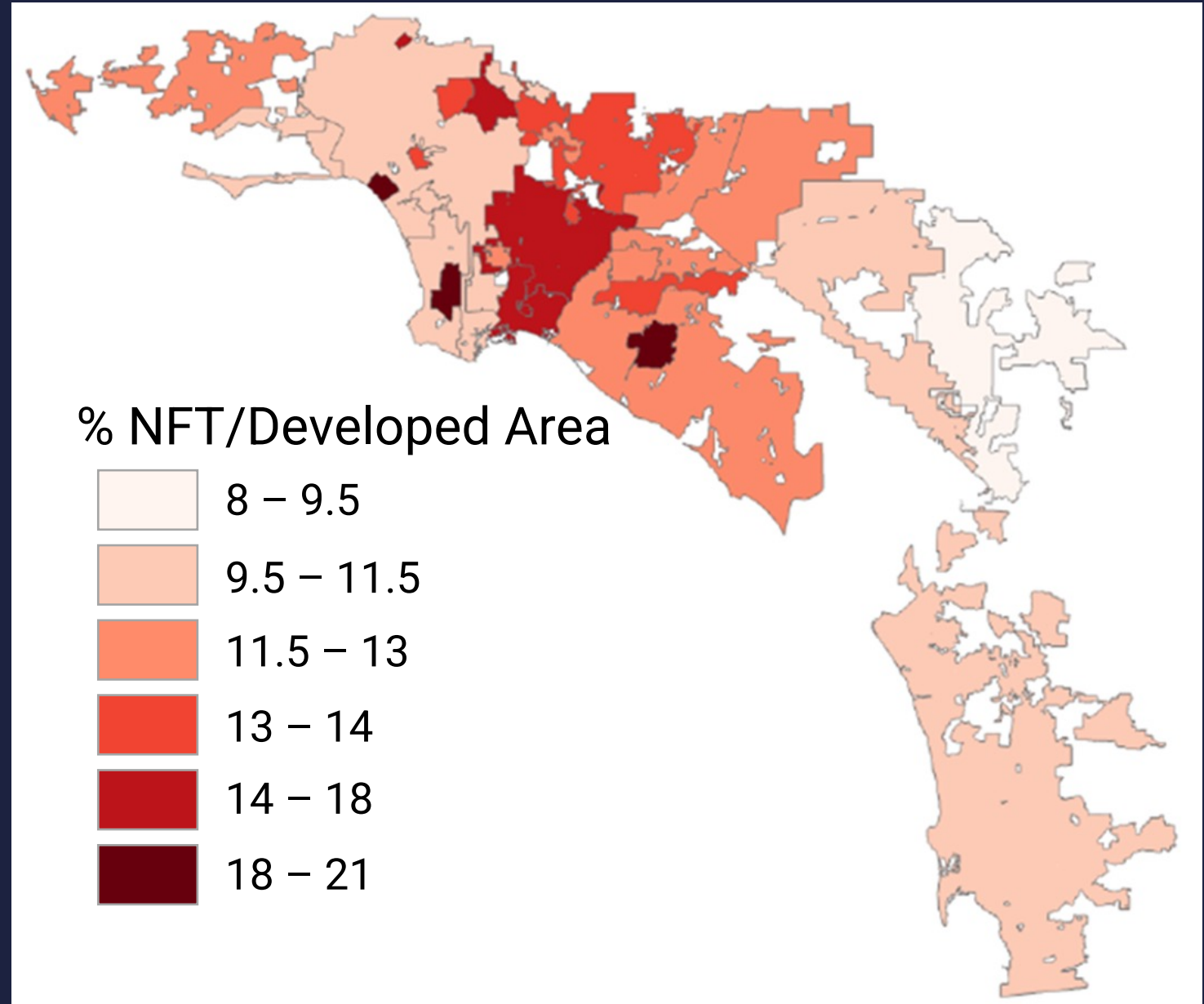
State NFT Legislation Built on Earlier Actions

- October 2022 – Metropolitan Board adopted resolution encouraging local action and ordinance language for prohibiting installation and irrigation of NFT
- November 2022 – Metropolitan joined 30 agencies across Colorado River Basin on MOU committing to reduce NFT in its service area by 30%
- Metropolitan turf replacement rebates have helped facilitate the removal of more than 200 million square feet of turf, saving enough water to serve 62,000 Southland homes annually.

Quantifying Metropolitan's NFT

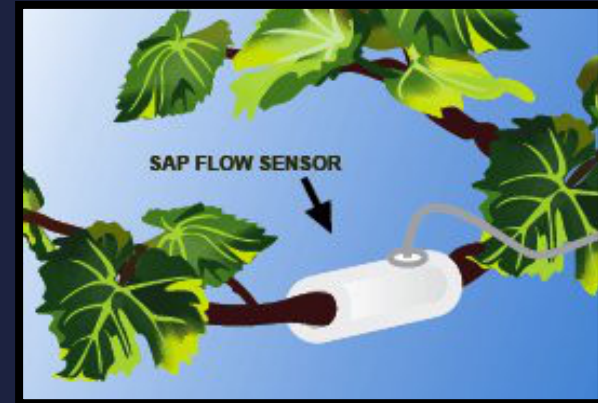
Partnered with PlanetScape AI to:

- provide a baseline of NFT in Metropolitan's service area by member agency using an interactive dashboard
- 1.2 billion sq ft of NFT with potential to save additional 300 TAF
- 13% of turf in the developed service area



Innovative Conservation Program (ICP)

- In cooperation with the Southern California Gas Company
- Provides grants up to \$50,000
- Focus: To study emerging water saving technologies and/or strategies and evaluate potential for rebate incentives
- Project reports available on BeWaterWise.Com



Water Savings Incentive Program (WSIP)

- MWD's Pay for Performance Program
- Encourages long-term water management
- Incentivizes non-residential, customized projects that aren't standard rebates (examples):
 - Retrofits of existing equipment
 - Process improvements
 - Agricultural and Landscape Irrigation System Improvements
 - Water Management Services

WSIP / One Water Award Recipients

City of Huntington Beach

PROJECT DESCRIPTION

- Alternative to conventional water main flushing
- The Neutral Output Discharge Elimination System (NO-DES) truck flushed hydrant lines by pumping water through truck-mounted filters and returning the water directly to the pipelines
- Projected to save more than 182 million gallons of water over the next 10 years



IMPACT

10-year projected
water savings:

182
million gallons

WSIP / One Water Award Recipients

Los Angeles County Arboretum and Botanical Garden

PROJECT DESCRIPTION

- Modernize a significant portion of the aging irrigation system
- Upgrades to the system included:
 - “Smart” irrigation controllers
 - Hi-efficiency water sprinklers
 - Flow sensors



IMPACT

Overall water usage
reduced:

30%

10-year projected
water savings:

350
million gallons

WSIP / One Water Award Recipients

Rice Canyon Ranch

PROJECT DESCRIPTION

- Switch to high-density spacing of the avocado trees (400 trees per acre vs traditional 100)
- Tree stumping to temporarily reduce irrigation needs and reinvigorate production
- Replace old trees with new trees grafted onto drought tolerant root stocks
- Install new irrigation equipment to improve overall water efficiency



IMPACT

10-year projected
water savings:

381
million gallons



WSIP / One Water Award Recipients

Ventura County Fire Department

PROJECT DESCRIPTION

- Acquire / use DRAFTS units (Direct Recirculating Apparatus Firefighting Training Sustainability)
- Mobile water-recirculating system that captures and recirculates training flows
- Increased flexibility to change training scenarios
- Increased community conservation awareness and education
- Increased agility to train and equip engineers to best serve the community



IMPACT

Up to

800

gallons of water
saved per minute

100%

of water used in
training goes through
Pump Pods

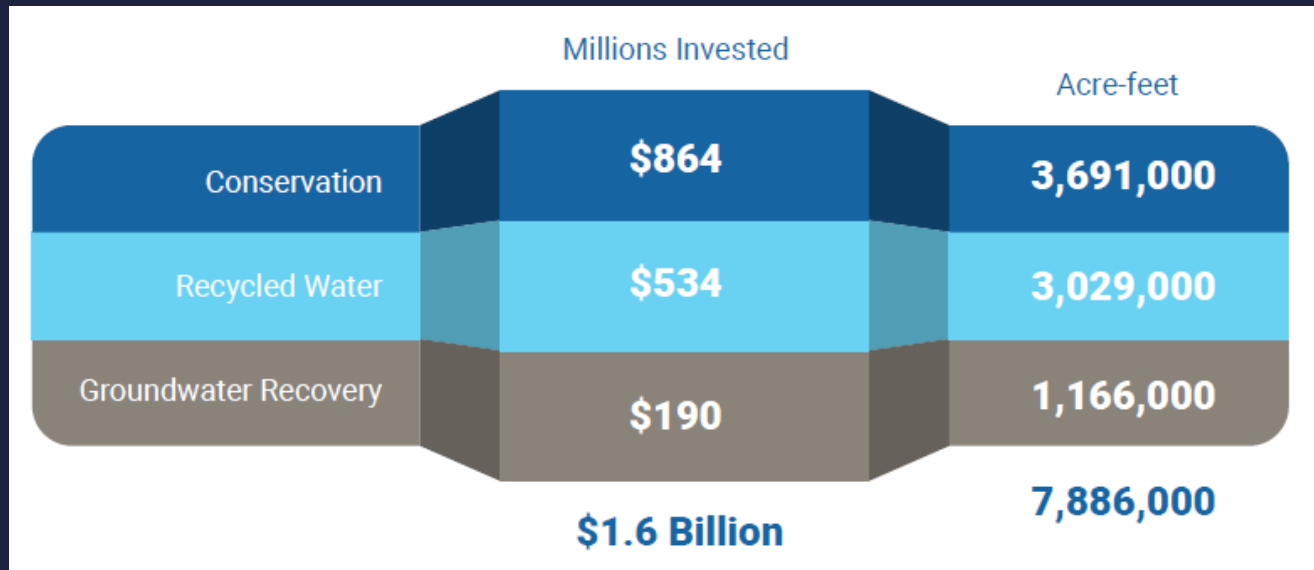
Professional Trainings

- Water Efficient Dual Landscape Program
 - Combines CLCA Water Management Certification Program and Qualified Water Efficient Landscaper Program
 - Receive two EPA certifications after passing written test and audit
- Model Water Efficient Landscape Ordinance Program
 - Compliance and Practitioners



Achievements Report (SB60)

Metropolitan's Cumulative Investment (since 1990)



<https://www.mwdh2o.com/media/3vah4zvt/2023-annual-achievement-report-final-metropolitan-water-district.pdf>

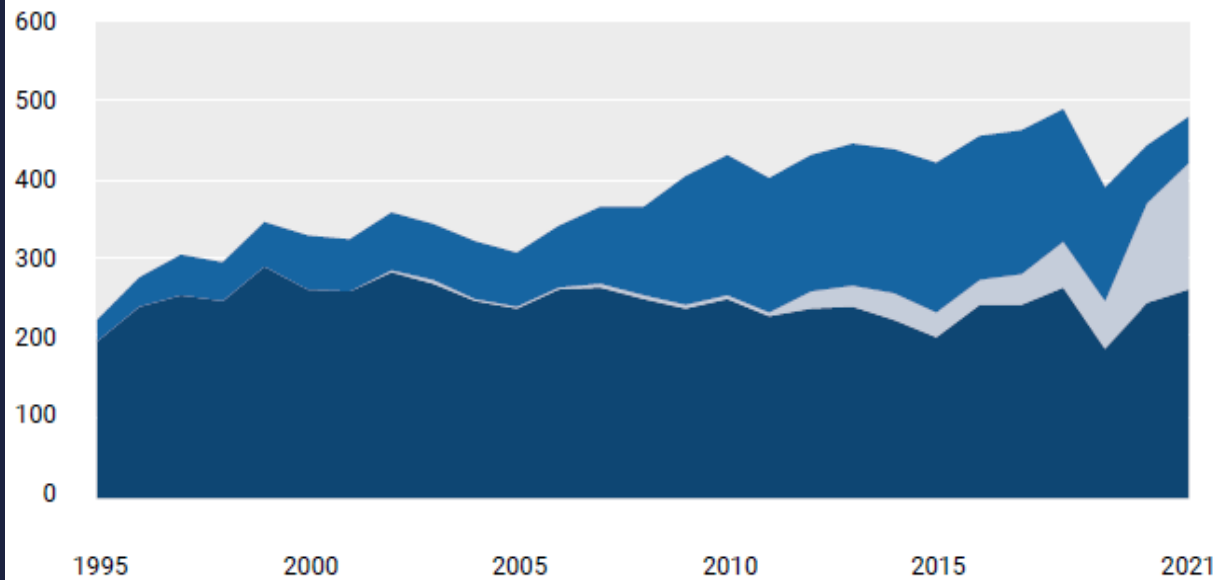


Achievements Report (SB60)

Metropolitan's Investment in Recycling and Groundwater Recovery (Thousands of Acre-Feet)

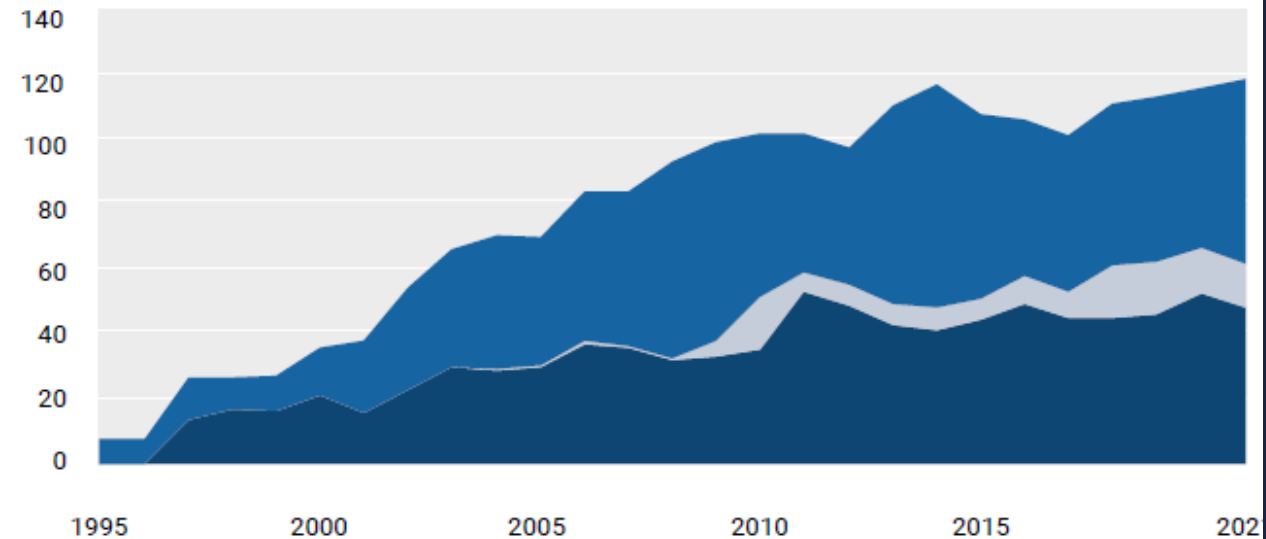
Recycled Water

Figure 1



Groundwater Recovery

Figure 2



● Non-LRP ● Former LRP ● Active LRP

Achievements Report (SB60)

Metropolitan GHG Emissions 2005-2020 Compared to the Carbon Budget

