

Water Conservation

FY19 2nd Qtr. Update

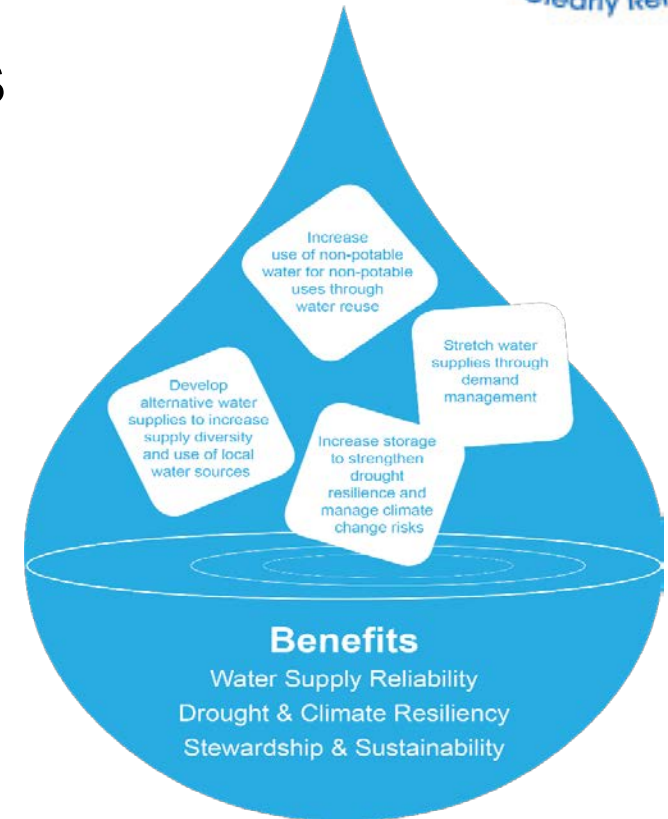
Resource Management
Commission

Austin's Integrated Water Resources Community Planning Task Force

- Members appointed by city council with non-voting city department ex officio members
- Scope includes 100 year planning horizon and climate change impacts
- Council approved “Water Forward” plan in November 2018, including continuation of task force which meets quarterly (next meeting March 12, 2019)
- Plan updated every five years

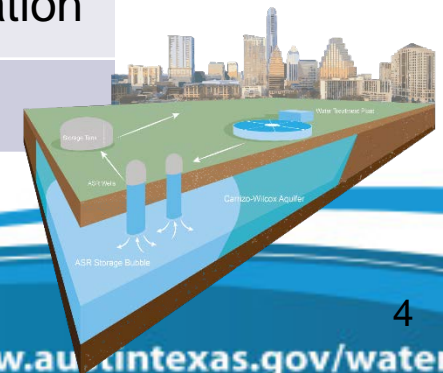
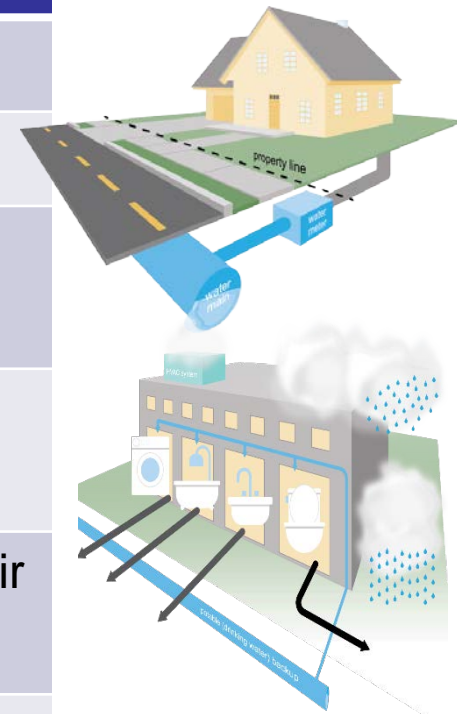
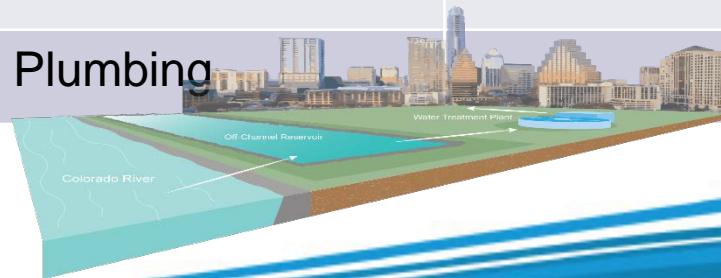
Potential benefits

- Extends existing water supplies
 - New supply delayed to 2105
- Enhances climate resiliency
- Reduces/delays treatment and distribution costs
- Reduces/delays new or expanded infrastructure
- Further postpones LCRA contract payment
 - Payments delayed until 2055



Recommended strategies

Demand Management	Water Supply
AMI	ASR
Water Loss Control	Reclaimed Water
Landscape Transformation	Stormwater
Irrigation Efficiency	Indirect Reuse
Commercial/Industrial/ Institutional	Off-channel Reservoir
Alternative Water	Brackish Desalination
Dual Plumbing	



Council direction

- Expedite timelines of all codes and ordinances (Adler, Kitchen, Tovo)
- Orient impact fees and rates to promote strategies (Adler)
- Align AW and WPD reporting structures and performance metrics (Adler)
- Extend on-site strategies to all master planned developments, including PUDs and other special districts (Adler)
- Consider creating a Research & Development unit within AW (Adler)
- AW coordinate city facility assessments, including pools (Alter)
- Consider using TWDB and other outside funding (Alter)
- Concurrent to ordinance development, advance training and demonstration projects, particularly involving dual plumbing (Alter)
- Include early stage in permitting process that considers conservation (Alter)
- Ensure skilled city workforce and training to implement alternative water strategies (Alter)
- Ensure substantive stakeholder involvement regarding ASR (Tovo/Kitchen)
- Coordinate stakeholder involvement for multiple codes and ordinances (Tovo/Kitchen)

Short-term implementation

DM Measure	FY20	FY22	FY23	FY25	FY28	FY32
Benchmarking Phase I	X					
Dual Plumbing Phase I		X				
Alt. Water Ord. Phase I		X				
Landscape Incentive		X				
Irrigation Incentive		X				
Alt. Water Incentive			X			
Landscape Ordinance				X		
Dual Plumbing Phase II					X	
Alt. Water Ord. Phase II					X	
Benchmarking Phase II						X
Next IRWP Update			X			

Alternative Water Options

- **San Francisco PUD Model**
 - New large development (e.g. $\geq 250,000$ sq.ft.) must submit estimated total water use and amount of available alternative on-site water
 - Must install meter size for full demand; however, meter fee based on size for reduced potable demand offset with onsite sources
 - Higher volumetric rates and/or meter fees for potable water use above amount estimated to be met with on-site sources
- **Net Zero/Net Blue**
 - New development required to “bring their own water” with required percentage potable water demand offsets (Santa Monica, CA - 75%)
- **Required AEGB rating**
 - New development must meet AEGB rating maximizing all water credits, including use of alternative onsite water sources (SFPUD 45,000-250,000 sq. ft.)

Alternative Water (con't)

- 2015 UPC L 411.3
 - Available onsite alternative water shall be used for a minimum of 75% of annual demand for landscape irrigation before supplemental potable water may be used
- “ECAD” for existing water use
 - Existing development using more than benchmarked use (e.g., based on EPA Portfolio Manager or AMI benchmarking) must notify tenants and reduce water use
- Require dual plumbing for new development
- Require Green Roof Infrastructure for new development

Alternative Water (con't)

- Consolidate/enhance existing rebate programs
- Consider non-traditional incentives such as:
 - expedited permit review process without a fee;
 - reduced meter size fee based on the potable water offset with “excess” use charge;
 - Credits for reduced stormwater drainage fee;
 - Density bonuses
 - Impact fees or tiered rate structure for commercial use
 - Eliminate “in lieu of” fees for stormwater management

Alternative water (con't)

- Challenges

- Ordinance launch without a preliminary pilot
- Rates/billing (e.g., wastewater averaging; backup potable service, fire)
- Cost and sustainability of O&M by facility owners
- Cost/benefit, affordability, public perception of wastewater reuse
- Yield and reliability
- “Double counting” multiple onsite sources meeting same demand
- How tenants will be charged
- Water balance calculators for production and storage/sizing
- Public health, liability for both owner and utility; property insurance rates
- Permitting processes and organization, treatment standards, monitoring, reporting, regulatory guidance documents, staff development and training;
- a utility’s “duty to serve” under Texas law; conditions of Certificates of Convenience and Necessity

Landscape Options

- Only 2.5 times building footprint or 10,000 square feet, whichever is less, may have turf grass and an automatic spray or rotor irrigation system
 - Landscape may only include native drought tolerant plants on city's Grow Green list
 - St. Augustine grass can only be planted in 6-10 inches of top soil
- Require home builders to offer a WaterWise Landscape option (similar to HBA's "Sensible Landscaping for Central Texas – A Guide for Home Builders & Home Owners")

Landscape Options (con't)

- Calif. Model Water Efficient Landscape Ordinance
 - maximum applied water allowance on landscape areas for all new construction, including limits on the percent of landscape that is irrigated turf
- Westminster Colorado
 - requires soil amendments and mulch; connection fees based on outdoor water budgets (max. 15 gal./sq.ft./yr.)
- Las Vegas
 - turf limitations and prohibitions (e.g., no turf in the front yard; side and rear yard not to exceed 50 percent (max. 5,000 square feet)

Irrigation Efficiency Options

- Increase rebate and expand program:
 - WiFi enabled “smart” irrigation controllers
 - Pre-set, monitor and control irrigation systems from a “Smart” phone or desk top computer to improve irrigation system efficiency, enabling quick customer response to leaks, high pressure, and soil moisture and also make flow data accessible)
 - Drip irrigation systems for commercial hanging baskets
 - Capillary mat watering system for commercial garden table plants

Timeline

- **2019**
 - Develop specific options
 - Draft code language/incentive programs
 - Develop stakeholder engagement plan
- **2020**
 - Conduct public input meetings
 - Incorporate feedback from stakeholders into draft ordinance language/incentive programs
- **2021-22** - Adopt ordinances, incentive programs

2019 Water Conservation Plan updates and timeline

- New programs based on 2018 IWRP
- New 5 and 10 year GPCD goals
- March - boards and commissions
- April – City council
- May 1 - deadline to TWDB/TCEQ

Monthly report changes

- New GPCD goals
- New programs
- New water savings and cost/benefit calculations
- New cost benchmarks and rebate amounts
- New cumulative percent contributions of programs toward goals



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