Austin WATER

WATER FORWARD
INTEGRATED WATER RESOURCE PLAN

One Water For Texas
May 17, 2018

Water Forward

Integrated Water Resource Plan (IWRP)

- Interdepartmental Austin Water is leading the development of a 100 year water plan that reflects our community's values
- Council-appointed Task Force meets monthly
- and community coordination
- Plan to be completed in 2018 with updates on a five year cycle
- Goal: Ensure a diversified, sustainable, and resilient water future, with strong emphasis on water conservation

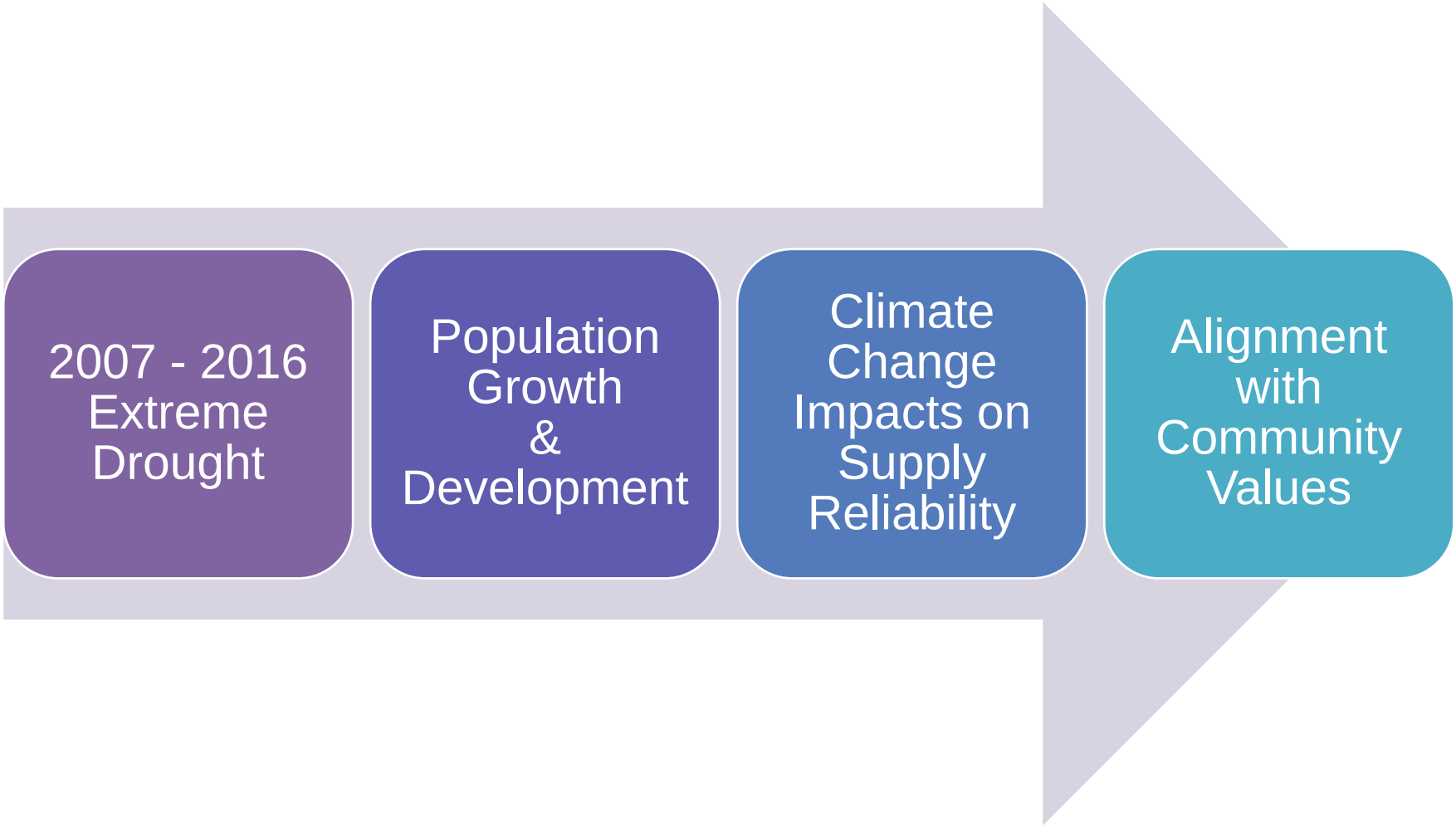
Austin's Water Supply

- Colorado River and Highland Lakes
- Combination of state-granted water rights & long-term firm contract with Lower Colorado River Authority (325,000 acre-feet per year)
- Austin's municipal river diversions for 2017 were ~149k AF

Guiding Principles for Plan Development

- Recognizing that Colorado River water is Austin's core supply, continue a strong partnership between the City and LCRA to assure its reliability
- Continue Austin's focus on water conservation and water use efficiency
- Strengthen long-term sustainability, reliability, and diversity of Austin's water supply through maximizing local water resources
- Avoid severe water shortages during times of drought
- Focus on projects that are technically, socially, and economically feasible
- Continue to protect Austin's natural environment, including source and receiving water quality
- Ensure Austin's water supply continues to meet/exceed all federal, state and local public health regulations
- Align with Imagine Austin's "Sustainably Manage Our Water Resources Priority Program"
- Maintain coordination and communication with regional partners
- Engage the public and stakeholders throughout the plan development process

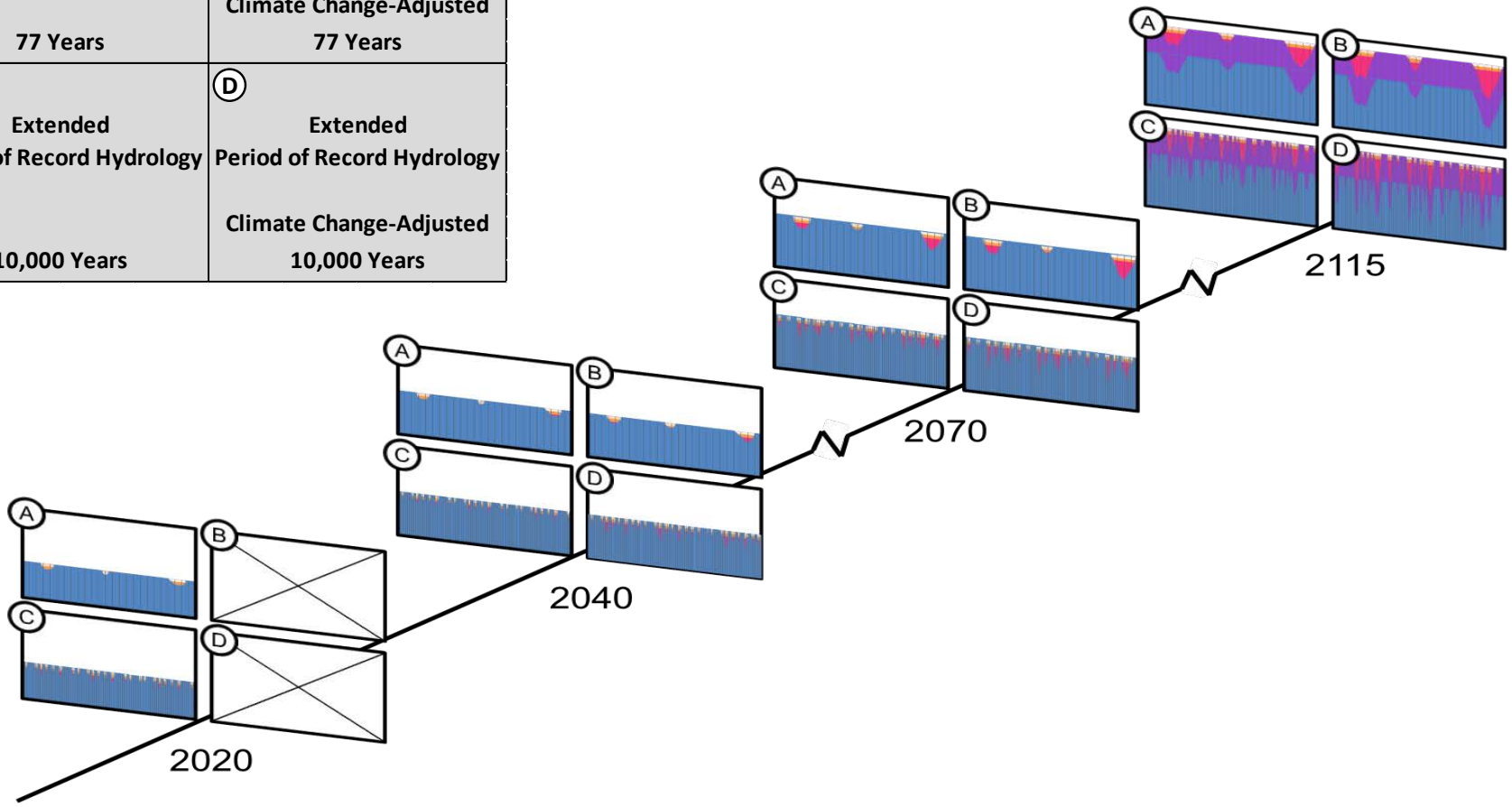
Drivers for Austin's IWRP



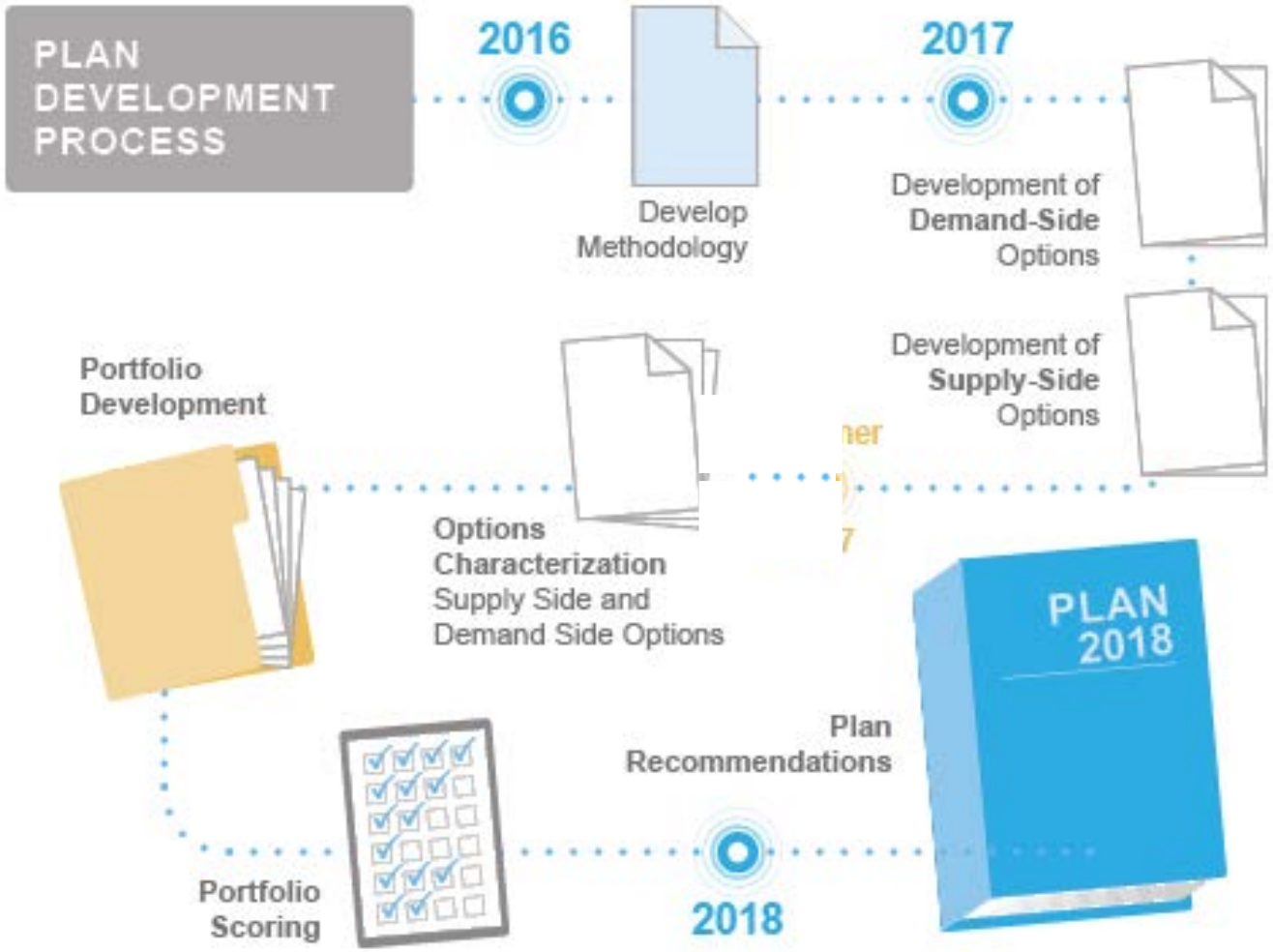
Planning For Change and Uncertainties

Future Hydrologic Scenarios

(A) Period of Record Hydrology 1940 - 2016 77 Years	(B) Period of Record Hydrology 1940 - 2016 Climate Change-Adjusted 77 Years
(C) Extended Period of Record Hydrology 10,000 Years	(D) Extended Period of Record Hydrology Climate Change-Adjusted 10,000 Years

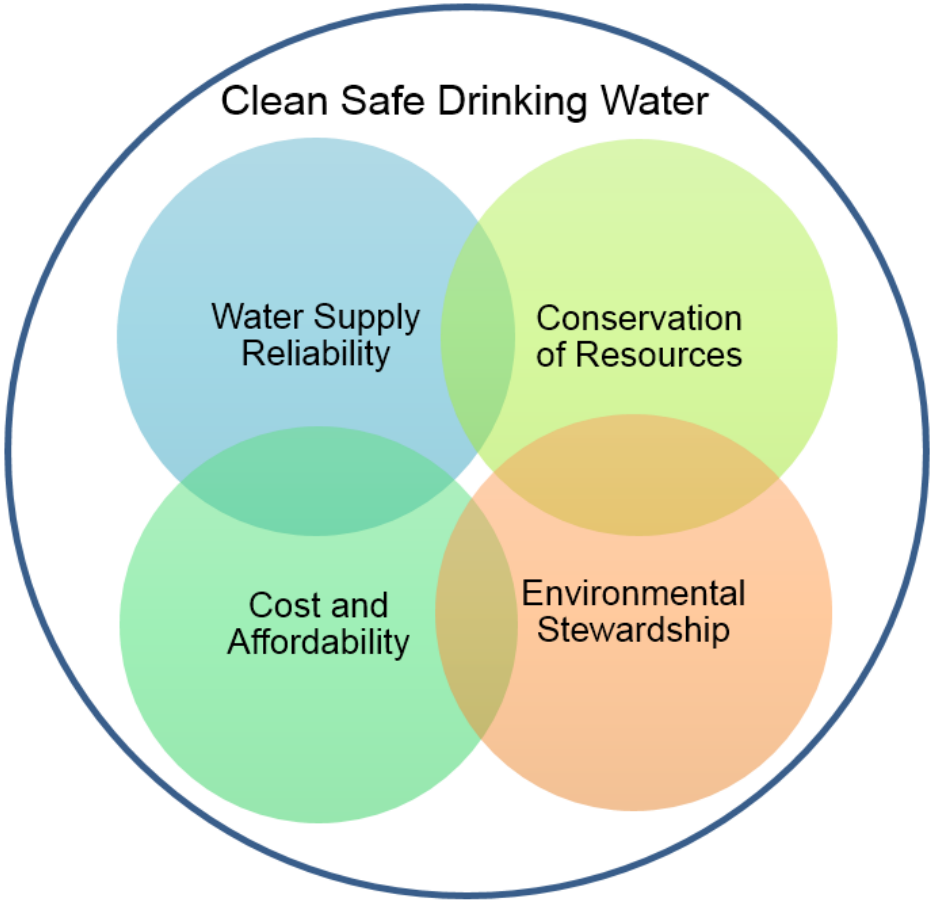


IWRP Development Process

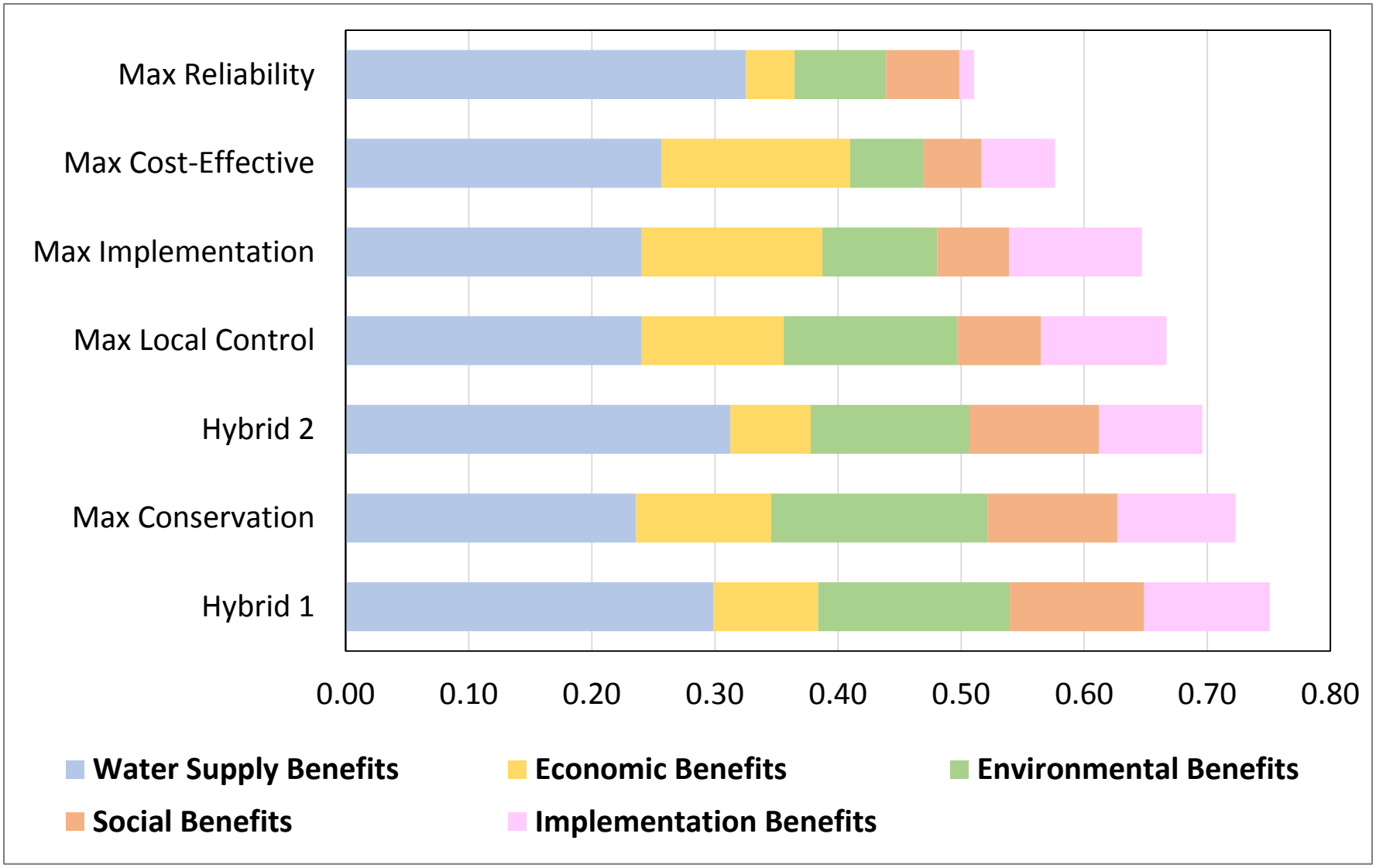


Public Input: What We've Heard

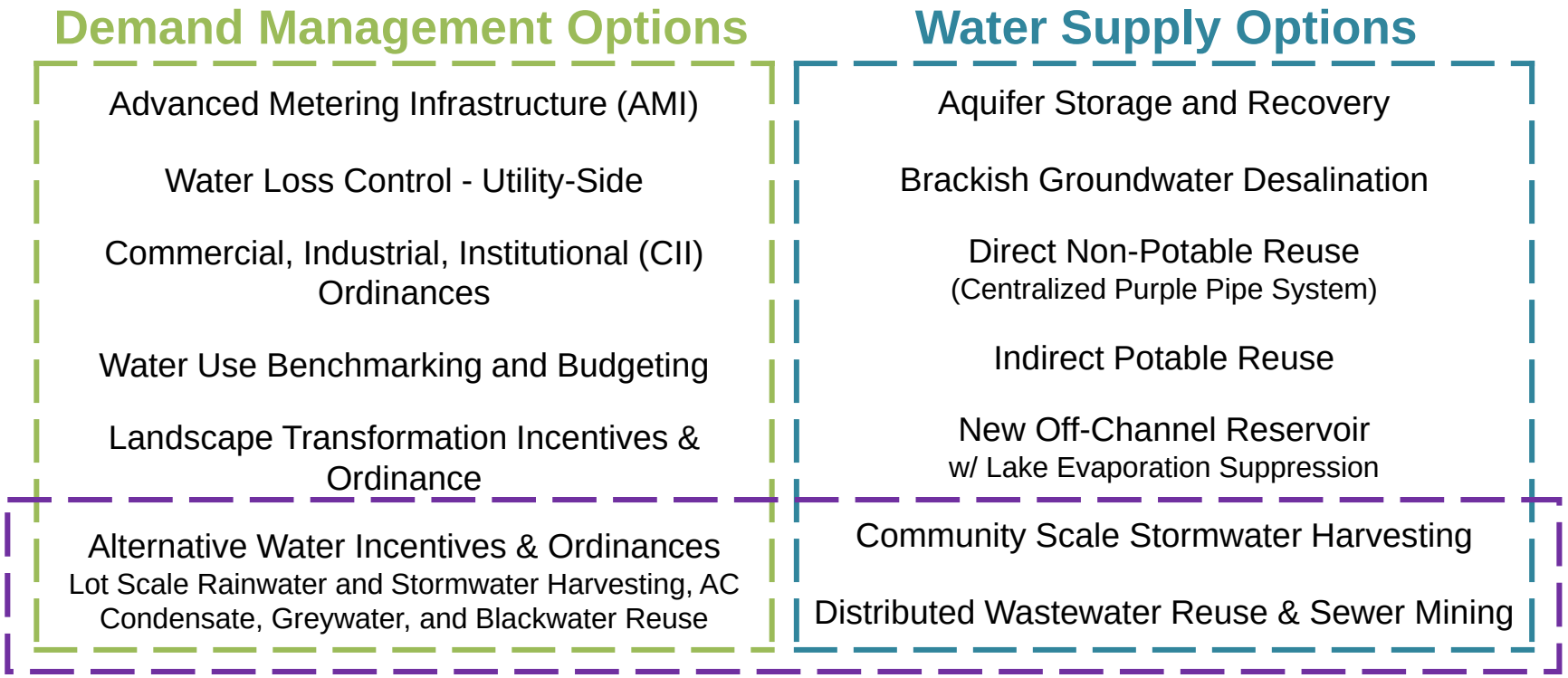
- Staff has presented at and attended over 80 community group meetings and events
- Austin Water has hosted five public workshops, many paired with online webinars, across the City



Portfolio Scoring



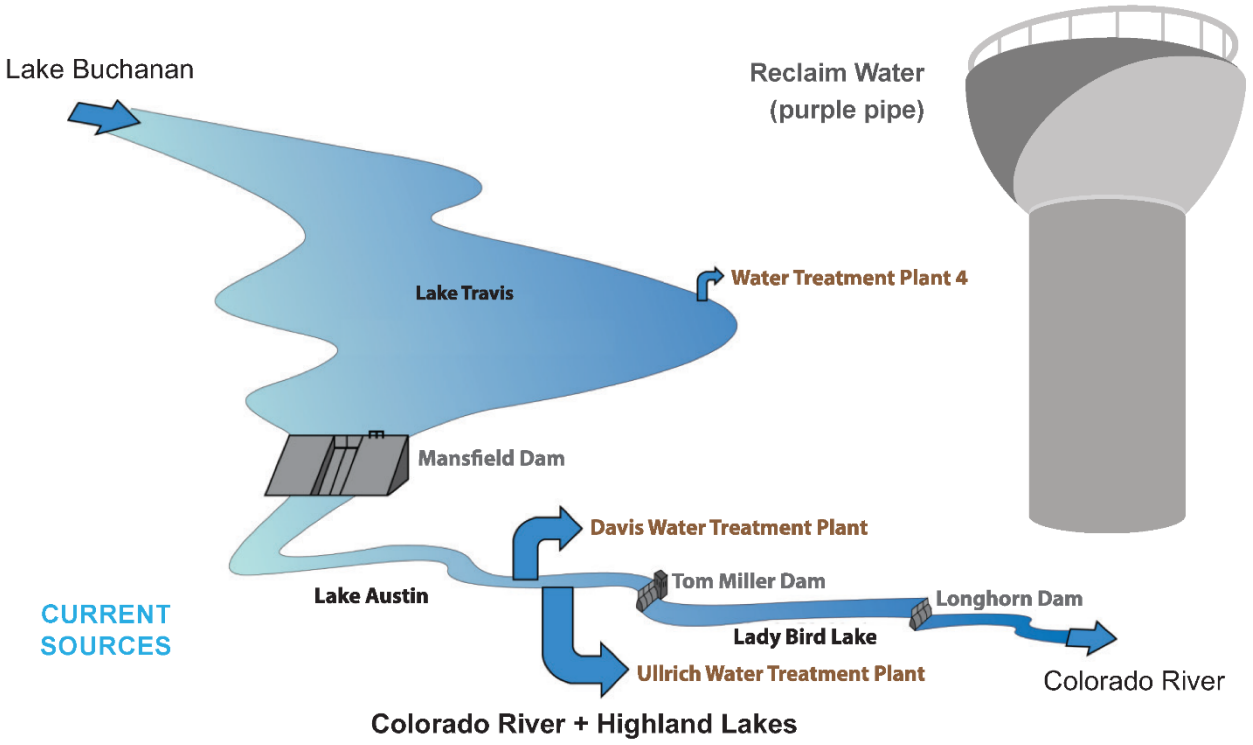
Draft Plan Recommendation Strategies (from Hybrid 1)



Options above are addition to City's current core water resources: Colorado River firm water supply, water reuse program (purple pipe system), water conservation program, and drought contingency plan

Plan Benefits

Supply diversification and resilience



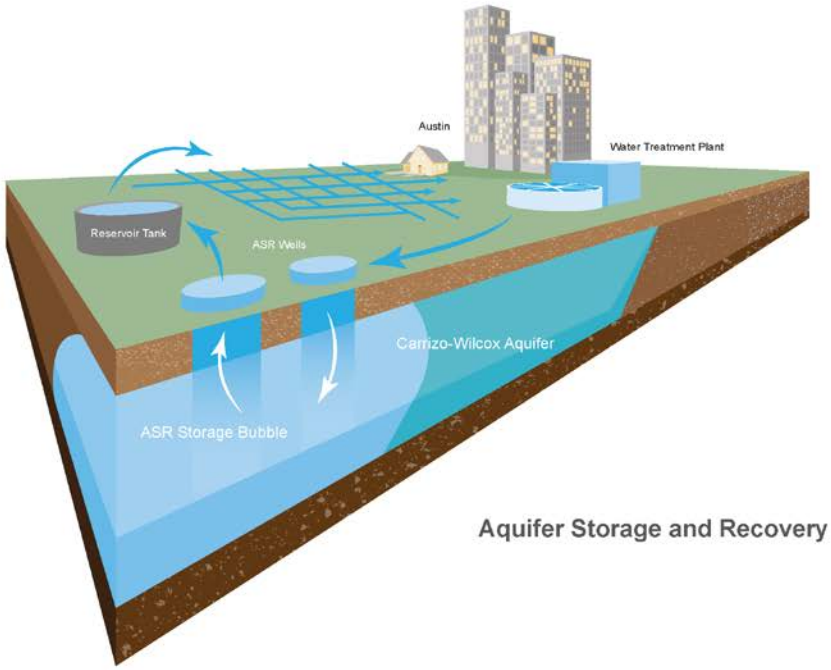
- Conservation
- Rainwater and Stormwater Harvesting
- Lot scale reuse – blackwater and graywater
- Distributed Wastewater Reuse
- Centralized non-potable reuse – Purple Pipe
- Aquifer Storage and Recovery
- Indirect potable reuse
- Brackish Groundwater Desalination
- Off-channel Reservoir

POTENTIAL FUTURE SOURCES OF WATER

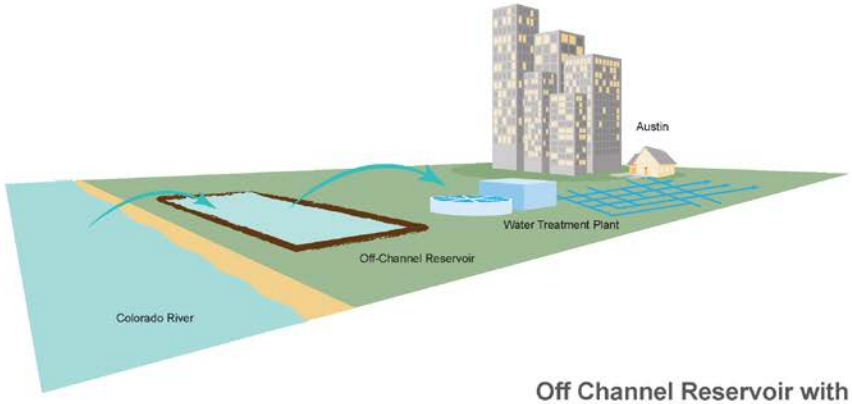
In the future, additional supply and demand management strategies will help to ensure a sustainable and resilient water future.

Plan Benefits

Strengthening drought resilience and planning for climate change



Aquifer Storage and Recovery

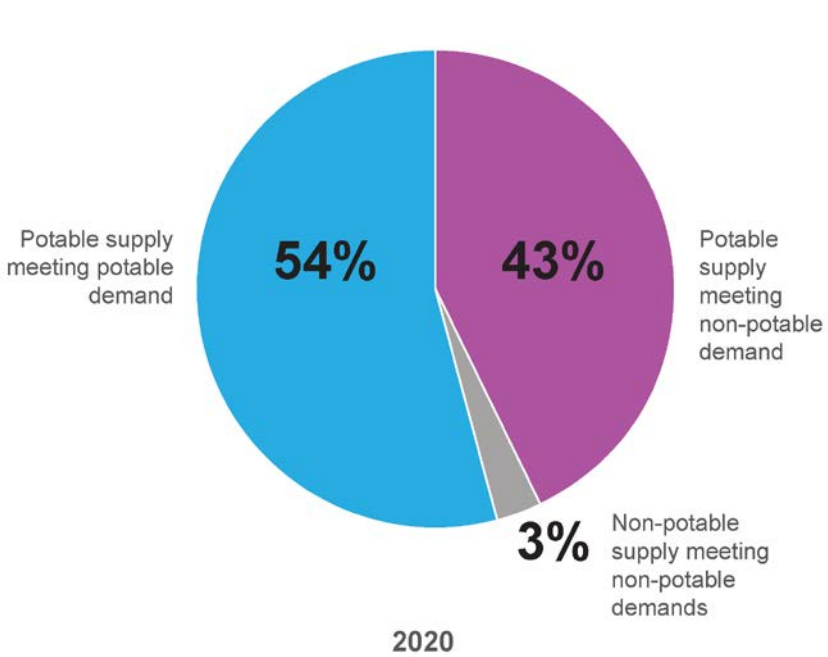


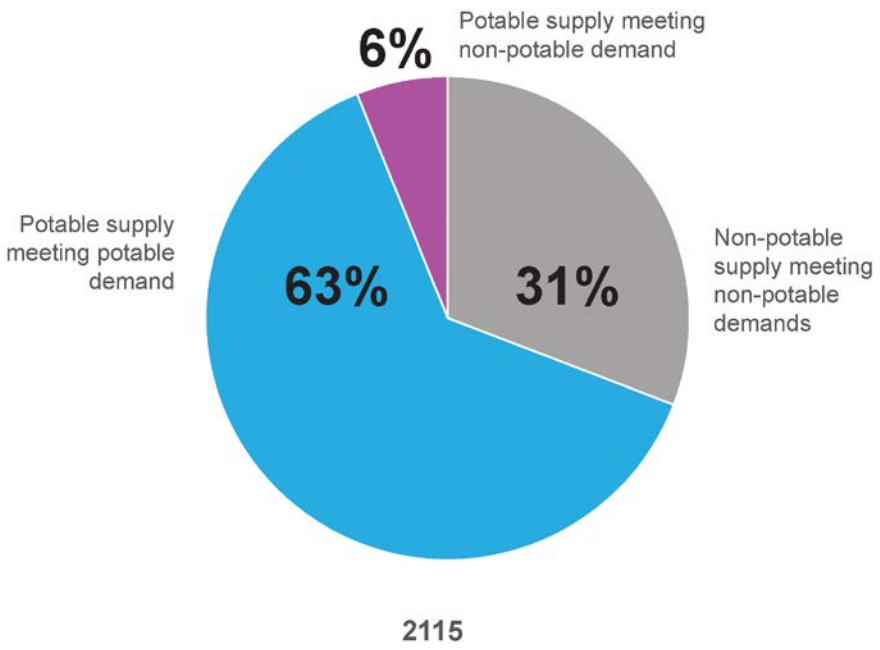
Off Channel Reservoir with Lake Evaporation Suppression

Storage options increase our ability to store water during wet periods. This stored water can be drawn back out for use during droughts.

Plan Benefits

Meeting Future Demands & Population Growth





Over time this plan enables us to increasingly meet non-potable demands with non-potable supplies rather than potable supplies.

Plan Benefits

Stretching Our Current Supplies

Advanced Metering Infrastructure

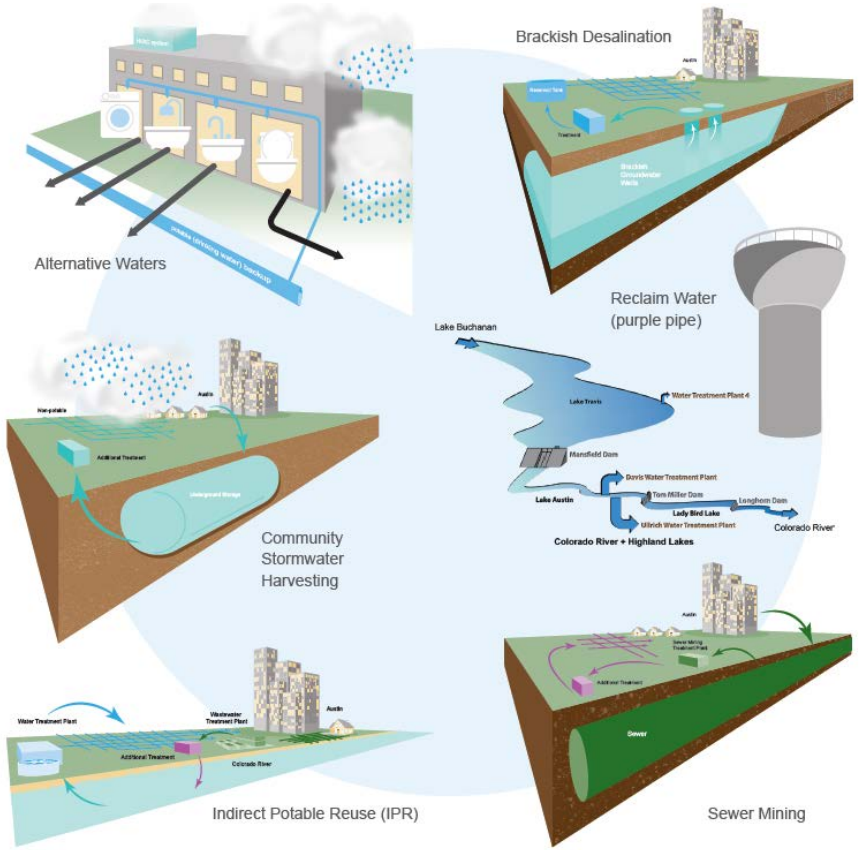
Landscape Transformation Incentives or Ordinances

Development-focused Water Use Benchmarking and Budgeting

Making our community more water efficient through demand management or conservation enhancements to stretch our current supplies.

Plan Benefits

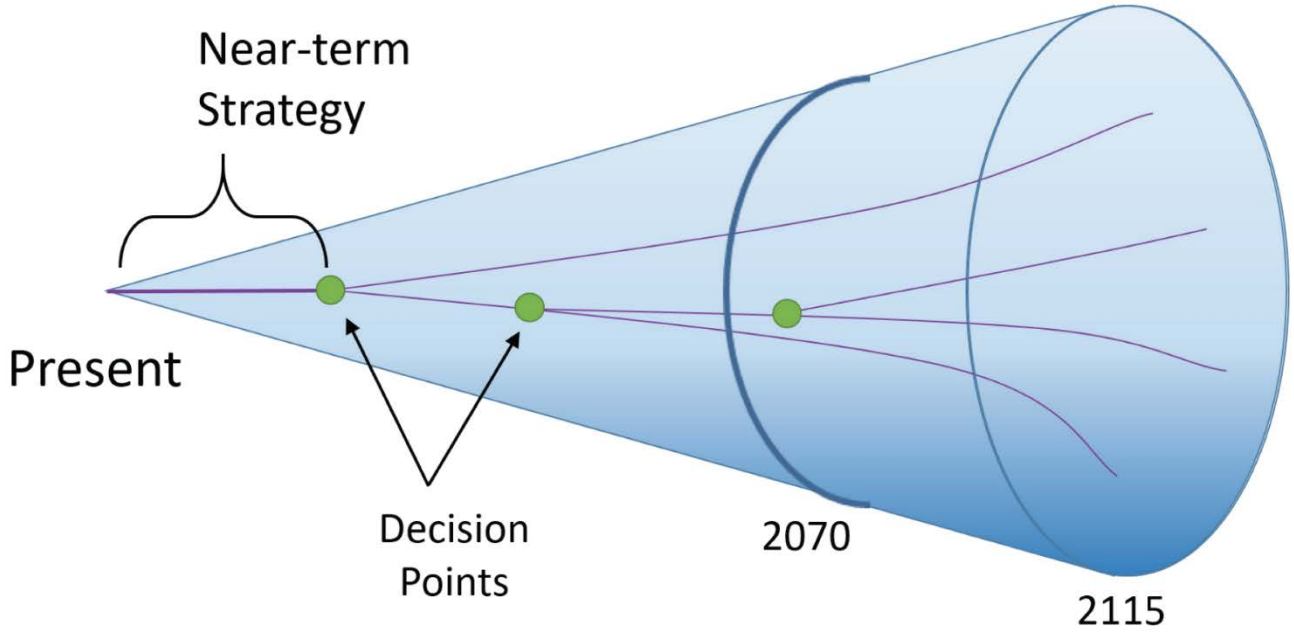
Maximizing local water sources



Plan recommendations seek to increase use of local water sources including stormwater, greywater and blackwater.

Plan Benefits

Planning for Climate Change and Uncertainties Through Adaptive Management



An adaptive management approach enables us to respond to new information and changes as they arise.

Next Steps

- Post plan adoption, AW will begin implementation, monitoring, and potential adaptation of strategies
- Near term activities will include:
  - Development of codes and ordinances
    - Dual Plumbing
    - Alternative Water Use
  - Development of incentive programs
    - Landscape Transformation
    - Irrigation Efficiency
  - Aquifer Storage and Recovery Pilot
  - Indirect Potable Reuse planning

Next Steps

- New City of Austin Planning and Development Center to include onsite blackwater reuse pilot facility

Thank You

austintexas.gov/waterforward

WATER FORWARD

Austin is one of the fastest growing cities in the country. With a rapidly growing city and a changing climate, Austin Water is working with other city departments, a Council-appointed citizen Task Force, and the community to develop a water plan for the next century.

The goal of the Water Forward plan is to ensure a diversified, sustainable, and resilient water future, with strong emphasis on water conservation. This plan will consider a range of strategies such as water conservation, water reuse, aquifer storage and recovery (ASR), and others.

TOP CONTENT

- Water Restrictions
- Water Conservation
- Reclaimed Water Program
- Residential Customer Service
- Contact Information

CONTACT INFO

Email

Sign up for E-Newsletter