

# RECLAIMED WATER

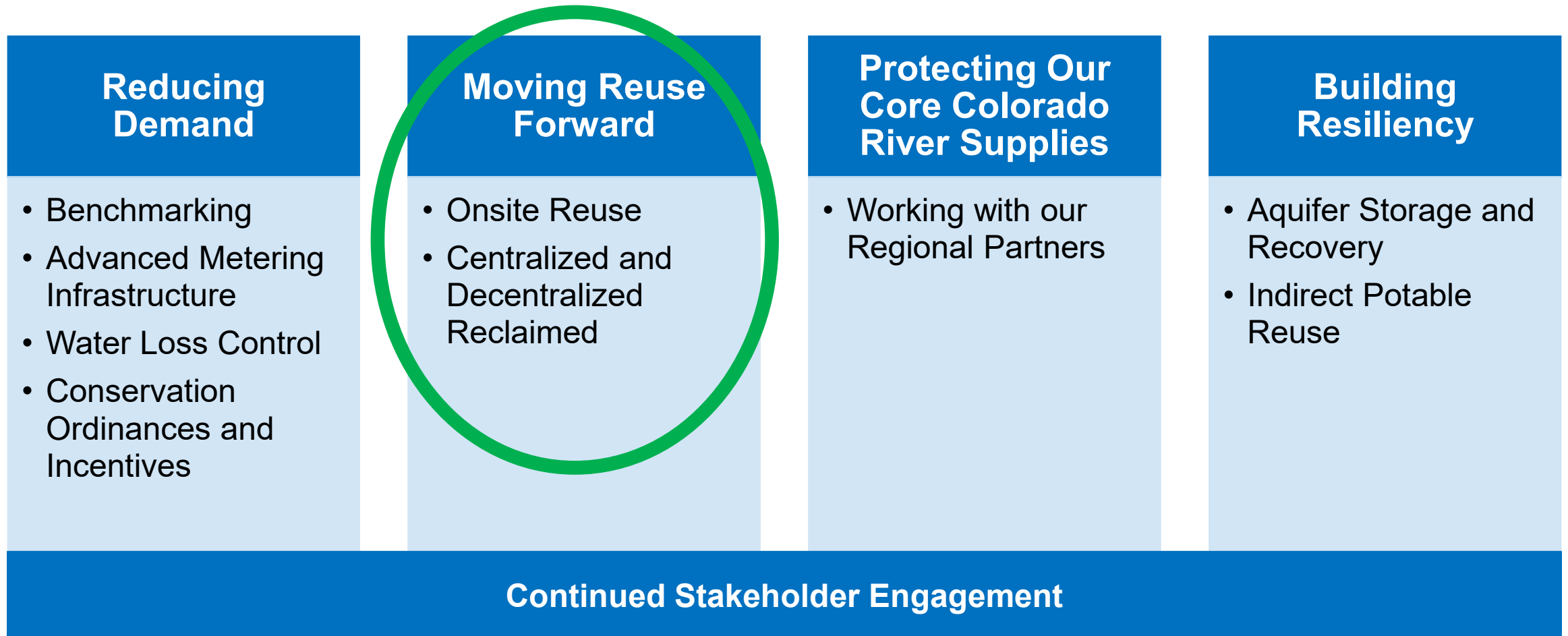
Austin Water Oversight Committee | August 23, 2023

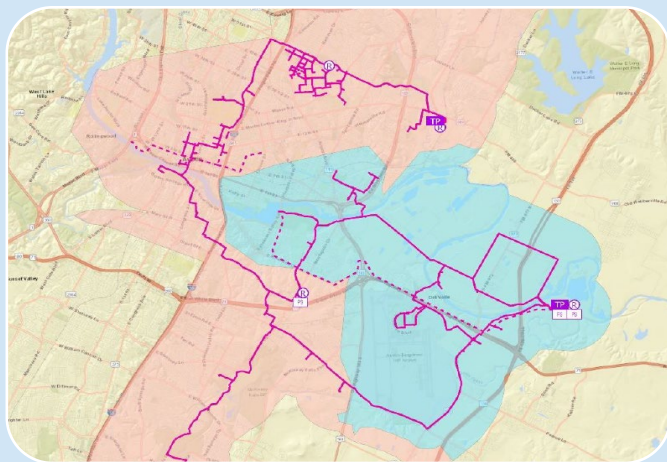


# Water Reuse in Water Forward



# Water Forward 2018 Strategies





## Centralized Reclaimed Water

Large-scale purple-pipe reclaimed water distribution system supplied by:

Highly treated effluent from Walnut Creek and South Austin Regional Wastewater Treatment Plants

System of mains, storage tanks, and pumping stations



## Decentralized Reclaimed Water

Community-scale purple-pipe reclaimed water distribution systems supplied by:

Highly treated effluent from decentralized WWTPs

Treated effluent from sewer mining projects



## Onsite Water Reuse

Lot-scale reuse supplied by:

Rainwater, AC Condensate, Blackwater, or Graywater

AW Pilot at PDC  
Private owners



# Typical Non-Potable Uses of Reclaimed Water



- 💧 Irrigation
- 💧 Toilet/urinal flushing
- 💧 Cooling
- 💧 Process water

# Water Forward Projections

Year	Centralized Reclaimed Water System (acre-feet/year)	Decentralized Wastewater Reuse (acre-feet/year)
2040	12,000	3,150
2070	25,000	14,470
2115	54,600	30,050

- Water Forward projections for added reuse with strategy implementation
- Water Forward 2024 update is underway – will lead to updated projections

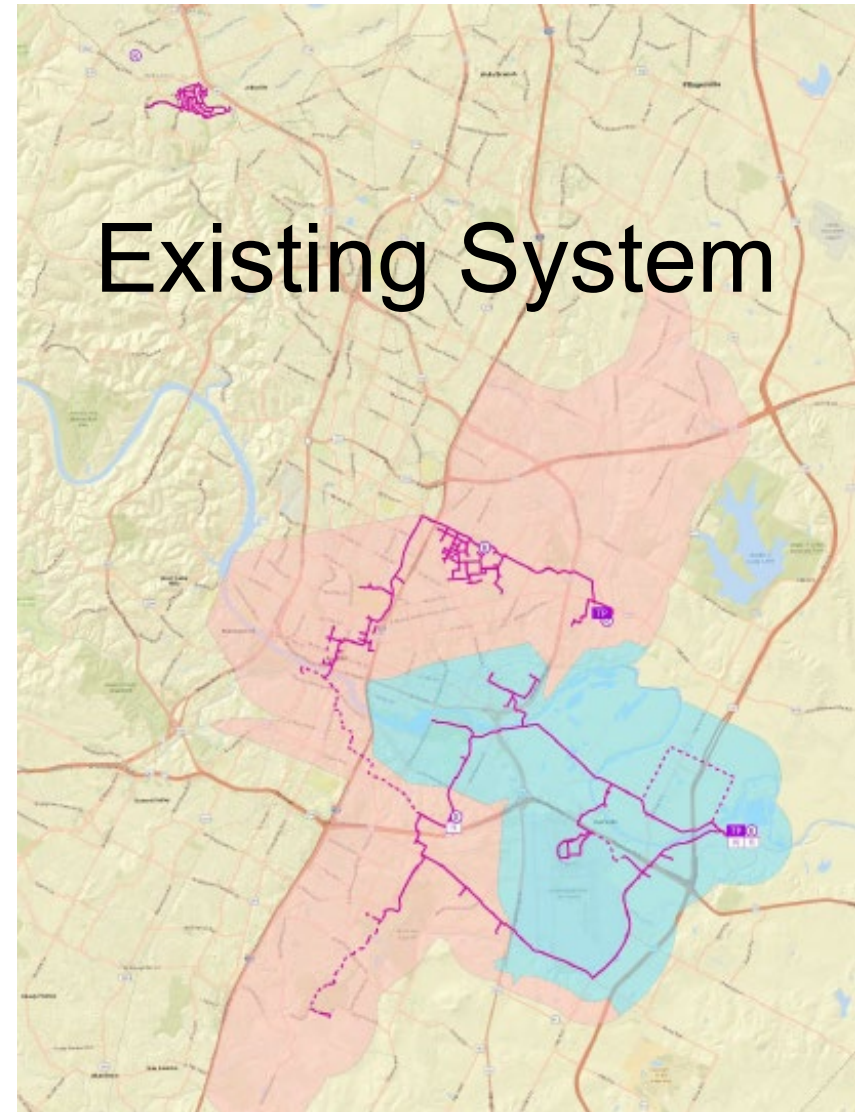


# Centralized Reclaimed Water System



# Reclaimed Water

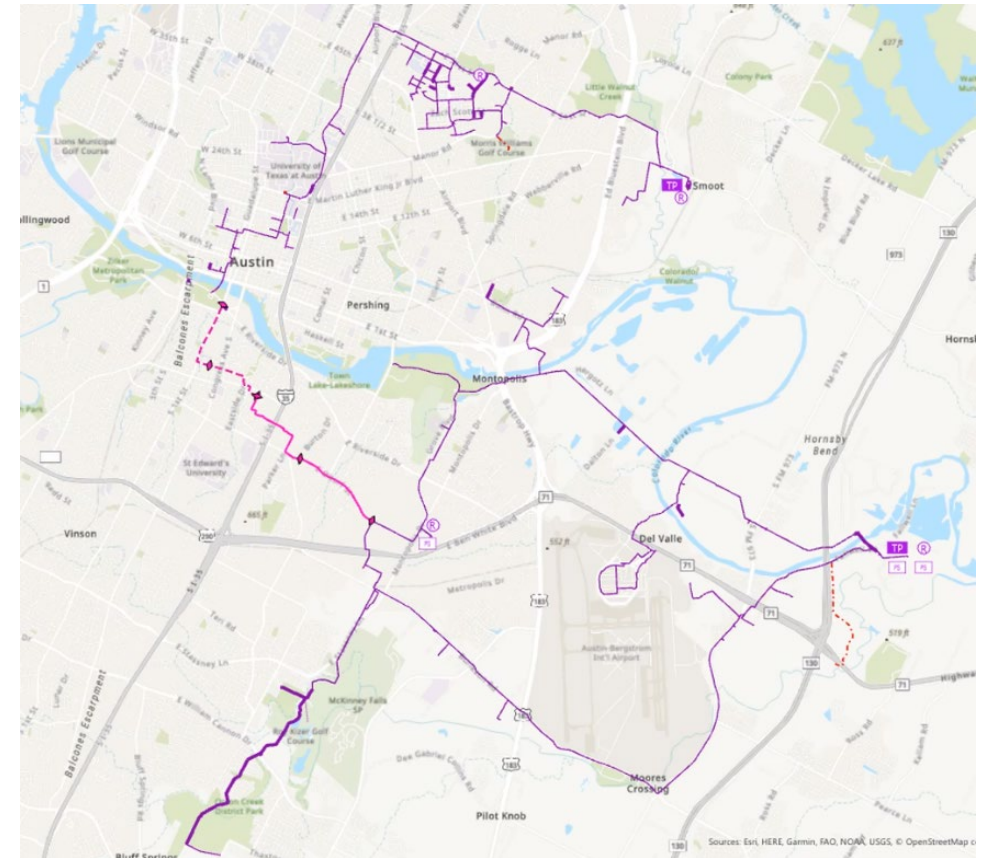
- AW's third utility
- Purple pipe systems supply
  - Walnut Creek Wastewater Treatment Plant
  - South Austin Regional Wastewater Treatment Plant
  - Decentralized facilities
- Total reclaimed water use (centralized and decentralized)
  - FY21 ~4,900 acre-feet
  - FY22 ~5,200 acre-feet
- FY22 use
  - Centralized - 1,533 MG (91%)
  - Distributed - 156 MG (9%)



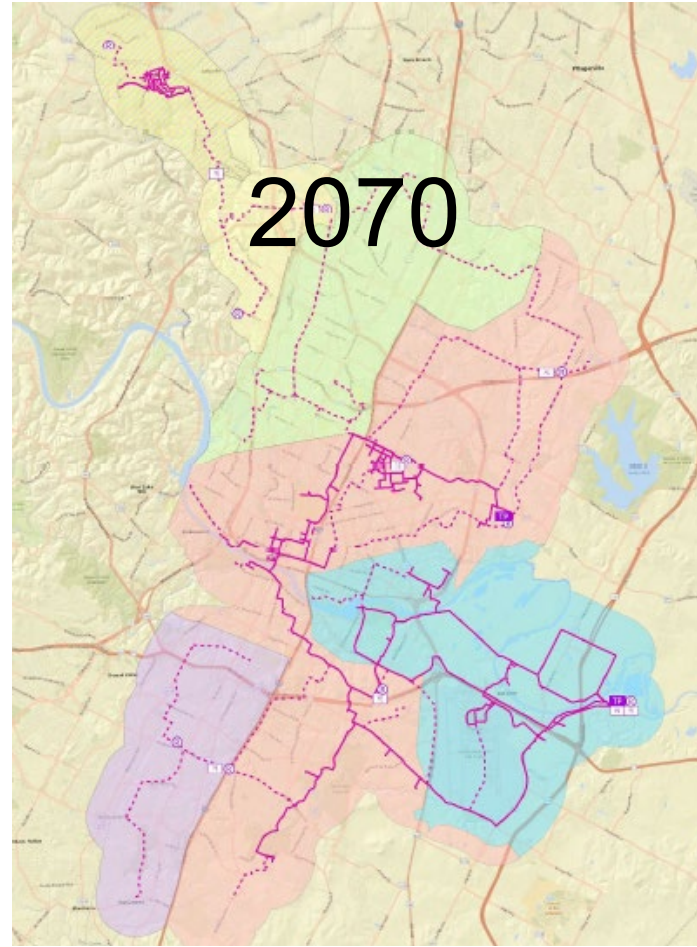
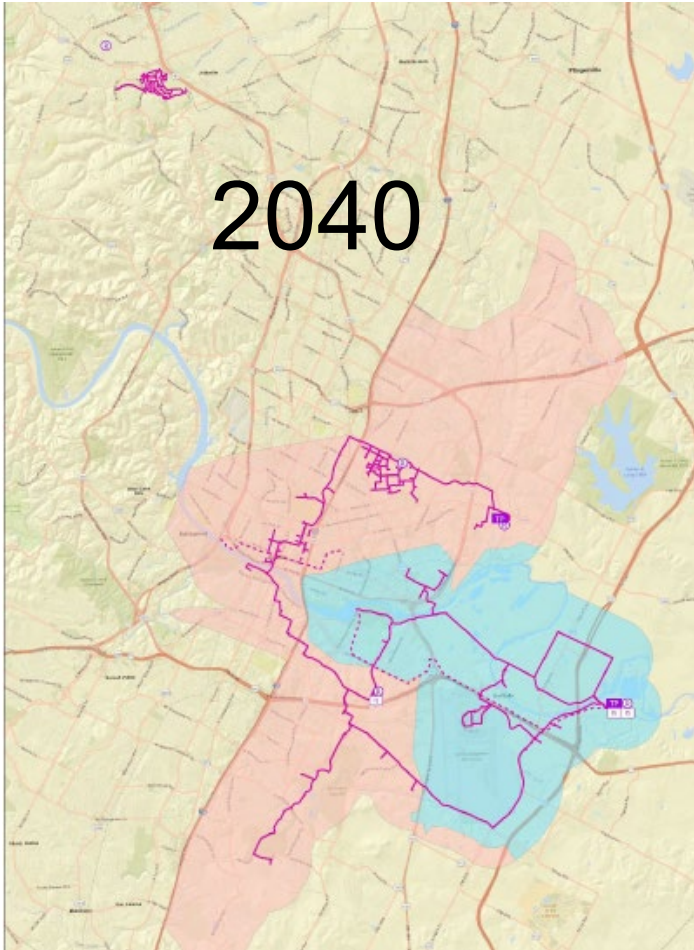
# Near-term Reclaimed Water CIP Highlights: Completing the Core

**On track for completion in FY25/26:**

- 💧 Onion Creek Phase I - In Construction
- 💧 Oltorf Phase I - In Construction
- 💧 Oltorf Phase II - Plan to advertise summer 2023
- 💧 Travis Heights - Plan to advertise spring 2024
- 💧 Barton Springs to South Congress – Plan to advertise spring 2024
- 💧 West Riverside - Plan to advertise winter 2024



# Looking Further Ahead

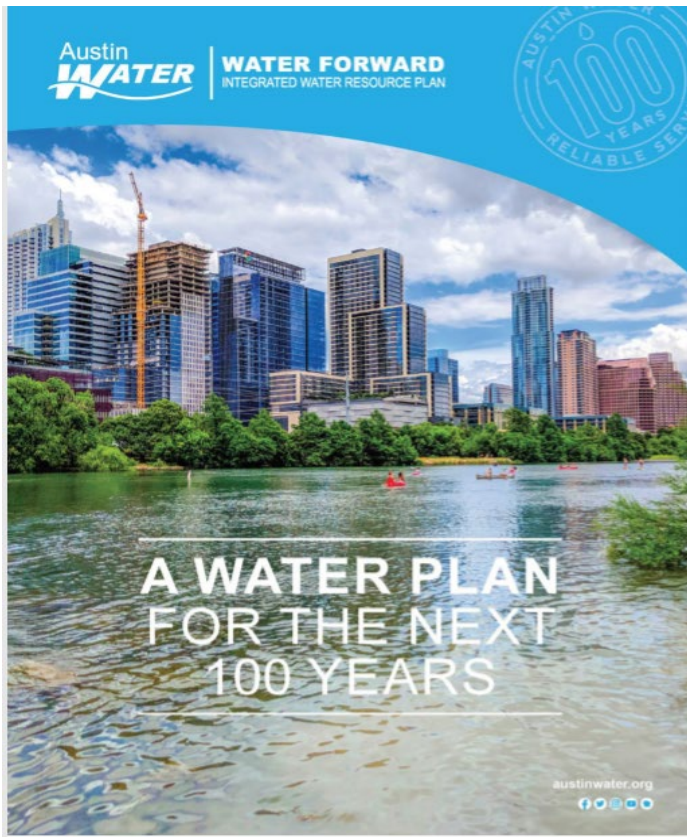


- On-going updates to infrastructure system plans
- Development and mobility projects provide opportunities for system improvements
- Comprehensive update planned

# Development Process Highlights

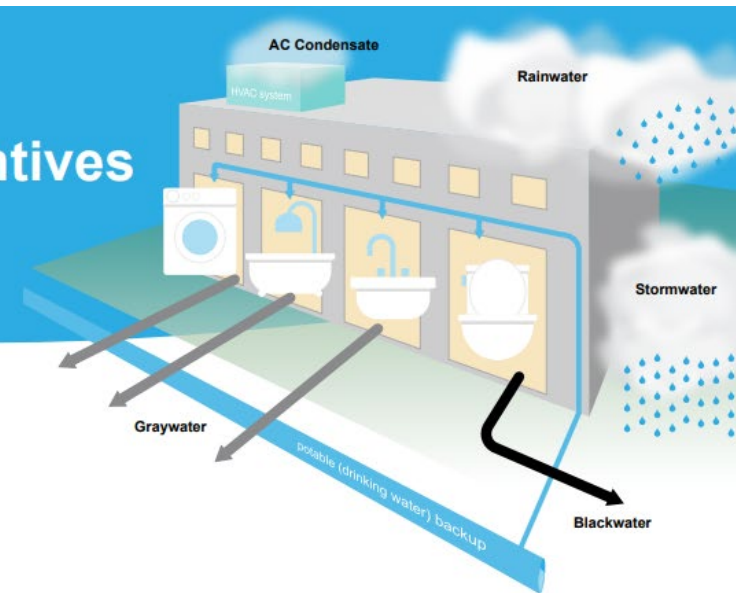


# Water Reuse in the Land Development Code



## Alternative Water Ordinances and Incentives

Require or incentivize, on-site (building-scale) alternative water use (for rainwater, stormwater, blackwater, graywater and AC condensate)

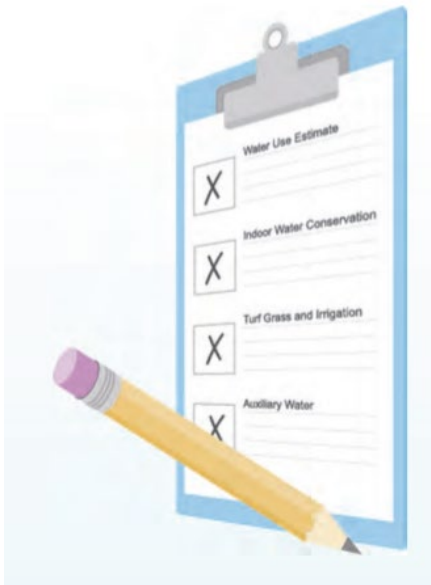


- Austin Water received Council direction in May 2019 to include Water Forward regulations into the LDC Revision
- Austin Water was asked to address code changes for **large commercial developments  $\geq 250,000$  SF**

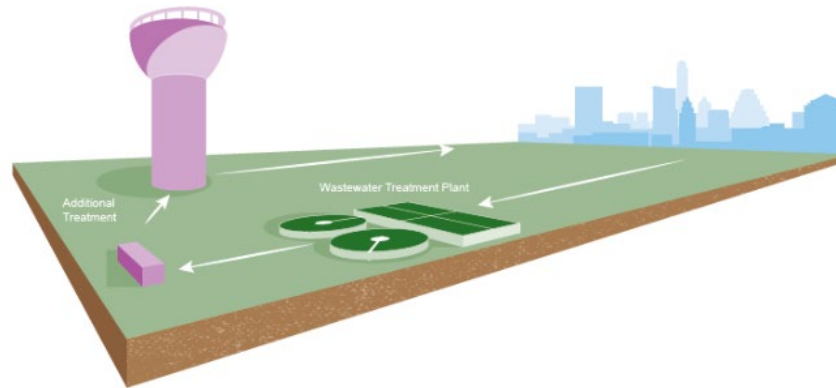


# Development Stakeholder Engagement

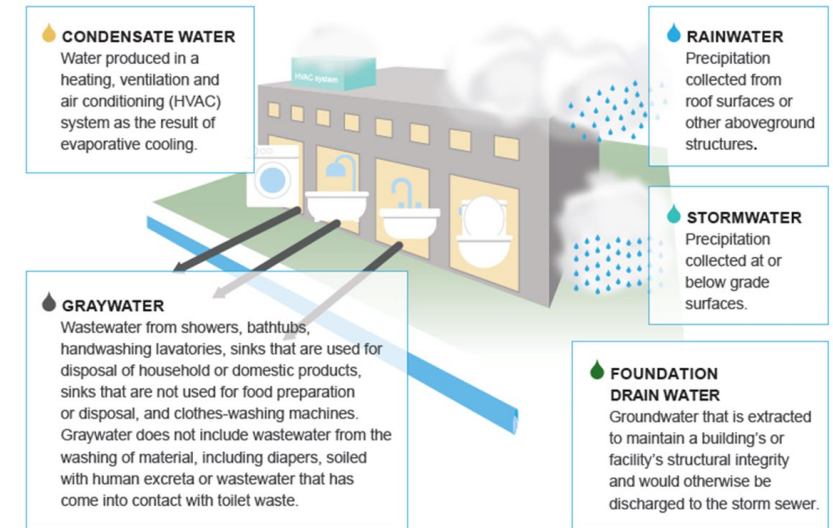
## WATER BENCHMARKING



## RECLAIMED WATER



## ONSITE WATER REUSE



# Water Benchmarking

Since December 2021:

- 400 applications
- 95 were for more than 250,000 SF
- Potentially ~1 million gallons per year per permit

The screenshot shows a web application titled "Water Benchmarking Survey". It contains several input fields for project information, including "Site Plan Case number", "Project Name", "Project Address", "Project Location", "Project Date", "Project Contact Name", "Contact Phone Number", "Contact Email Address", "Re-type Contact Email Address", and "Project Type". There are also checkboxes for "As required by code" and "Efficient recommendation" for various fixtures.

## Step 1

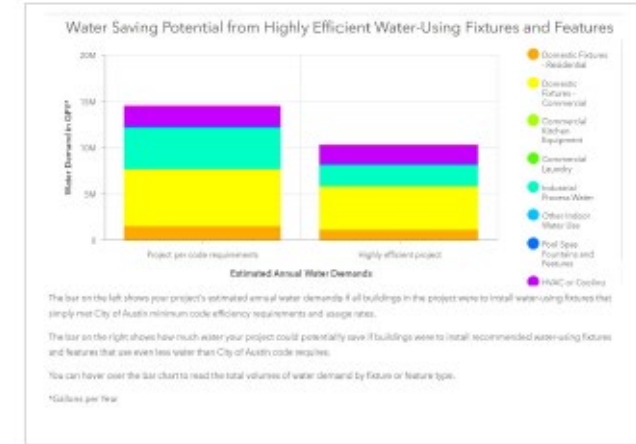
Fill the application, link shared on webpage

The screenshot shows a dashboard titled "Benchmarking Follow up Information Survey". It contains a section for "Efficient Fixtures" with a table for "Residential Fixtures". The table has columns for "As required by code", "Efficient recommendation", and "Not Sure". The first row is for "Showerhead" and the second row is for "Toilet".

	As required by code	Efficient recommendation	Not Sure
Showerhead	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Toilet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Step 3

Answer follow up questions on dashboard



## Step 2

Review water use summary dashboard emailed to you



## Step 4

250K SF projects meet with AW



# Reclaimed Water



## Since August 2022:

- 💧 22 site visits
- 💧 5 vested rights
- 💧 1 waiver for affordable housing

2012 ordinance



**All** commercial and multi-family projects within **250 feet** of a reclaimed main must connect and use reclaimed water for irrigation, toilet flushing, cooling.

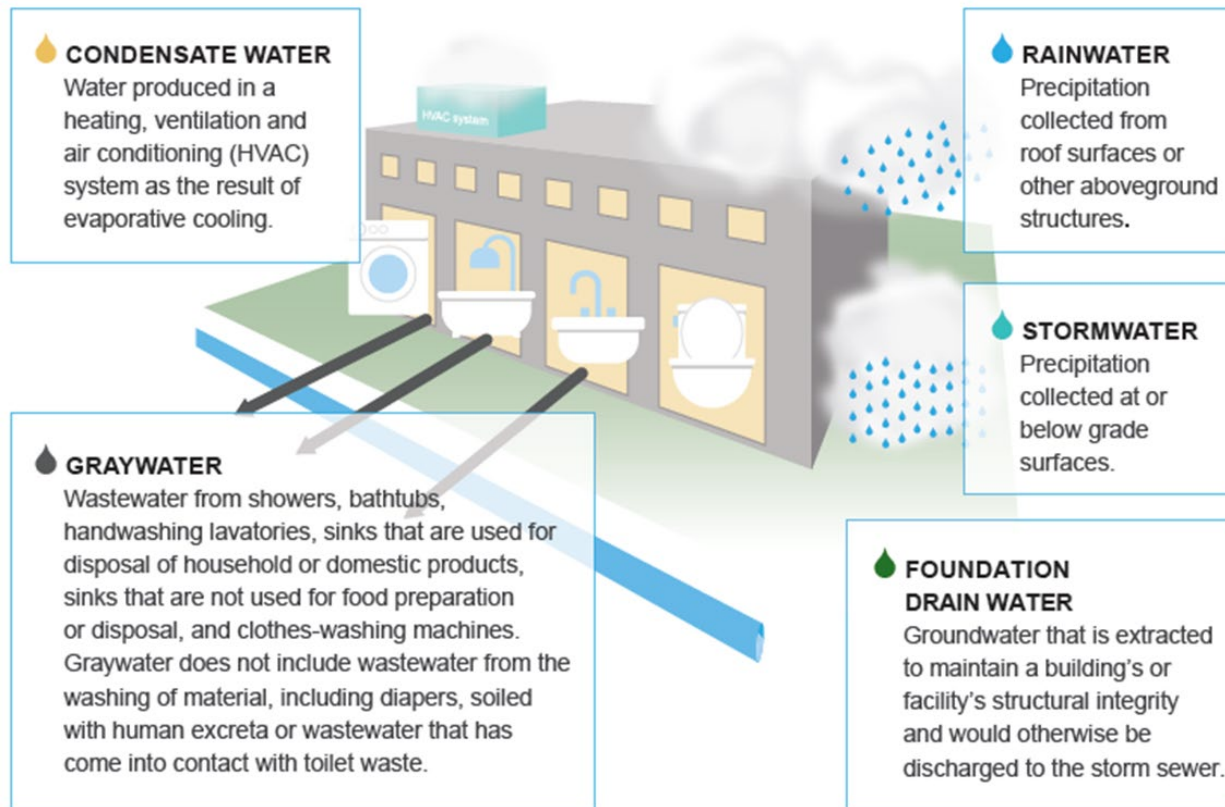
2021 ordinance



**Large Development Project** within **500 feet** of a reclaimed main must connect and use reclaimed water for irrigation, **toilet flushing**, cooling.



# Onsite Water Reuse



Onsite water reuse systems will be required for new commercial and multi-family development projects of 250,000 square feet or greater.

Projects will **collect and treat** rainwater and air conditioner condensate for reuse in buildings for toilet/urinal flushing, laundry, irrigation, and cooling.



# Questions?

