Long Range Planning: Capital Improvements Program, Facilities, and Major Construction Projects

Austin

Climate, Water, Environment and Parks Committee

October 22, 2025

Agenda

- **Capital Improvements Program Planning**
  Martin Tower, P.E.
  Infrastructure Management, Austin Water

- **Facilities Planning**
  Melvin Fraser, Jr.
  Facilities Management, Austin Water

- **Planning for Major Construction Projects**
  Charles Celauro, P.E.
  Assistant Director of Engineering Services, Austin Water

Capital Improvements Program Planning

Martin Tower, P.E.
Infrastructure Management

Austin Water Assets At A Glance

- More than 3,800 miles of water mains
- More than 2,900 miles of wastewater mains
- 3 water treatment plants
- 2 wastewater treatment plants
- 1 biosolids management plant
- 44 pump stations for water system
- 38 water reservoirs
- 142 wastewater lift stations
- Nearly 31,000 fire hydrants
- 20 campuses and 63 buildings
- Nearly 1,000 fleet vehicles and operational equipment
- Information technology
- 44,000 acres of managed wildlands

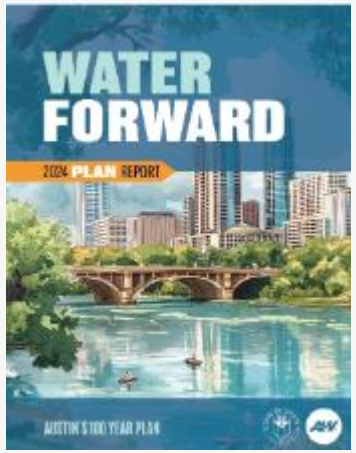
Capital Improvements Plan Development

- **Annual process**
- **Built from zero, based on business cases**
  - Asset management data drives renewal funding levels
  - ~600 projects are reviewed and validated each year
- **Led by program area leaders and staff who identify:**
  - Asset risks and renewal needs
  - Opportunities for enhancement and innovation
  - Requirements for expanded capacity
- **Reviewed and approved by executives who base approvals on:**
  - Managing risk to reliability and performance
  - Affordability for customers

AW CIP Business Case Example

Collaborative and Coordinated Planning

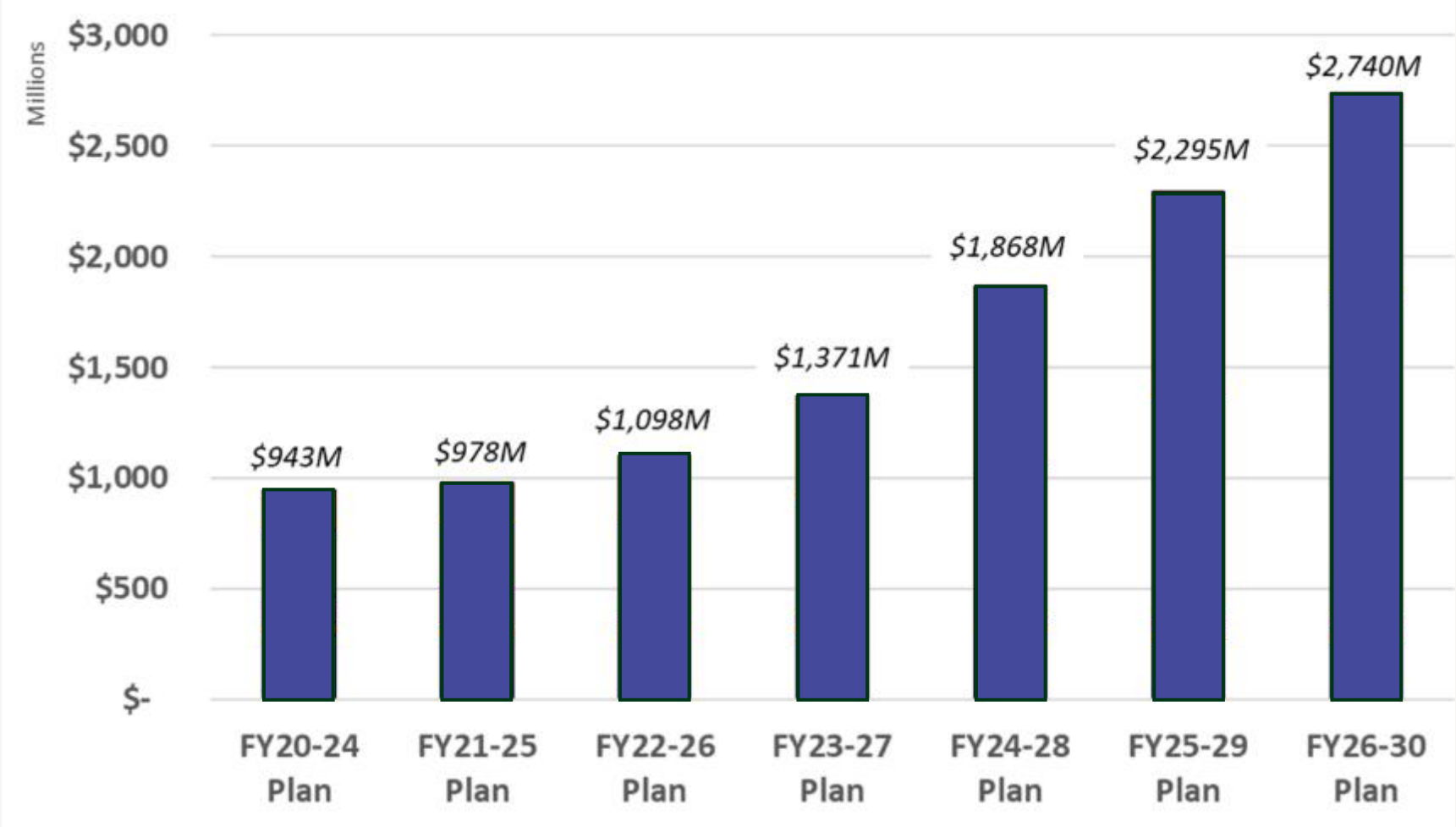
- **Feedback from City departments and external agencies enable:**
  - Opportunities for Cooperation
  - Reduced disturbance from construction
  - Cost Efficiencies
- **Purposeful and strategically aligned with:**
  - City of Austin Strategic Plan
  - Austin Water Strategic Plan
  - Austin Water Facility Plan
  - Water Forward
  - Imagine Austin



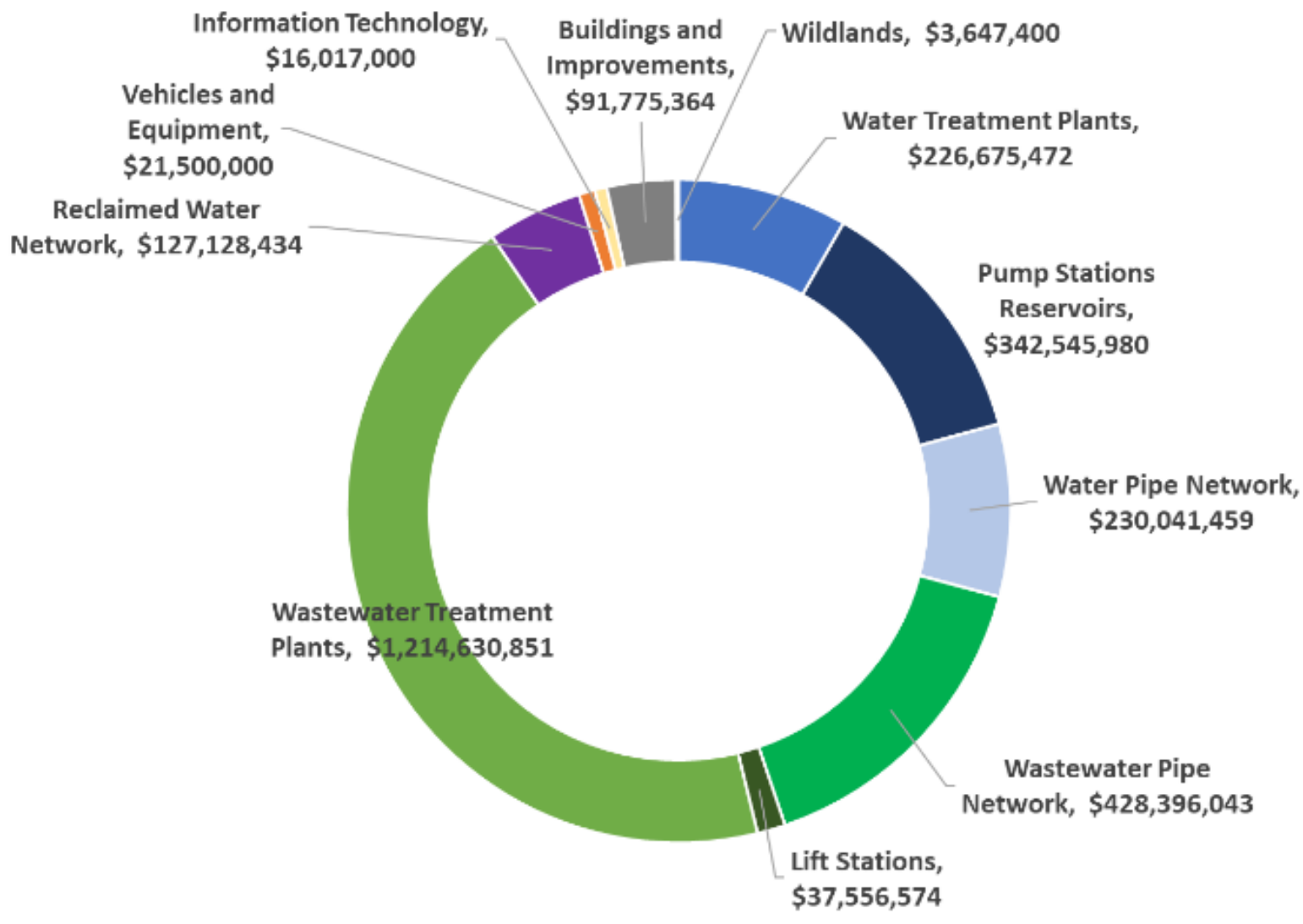
5-Year Plans for Generational Investments

STRATEGIC EXAMPLES

- Advanced Metering Infrastructure
- Reclaimed Water System Improvements
- Walnut Creek Wastewater Treatment Plant Expansion
- Aquifer Storage & Recovery
- Austin Water Control Center



FY26-30 Capital Investment Portfolio



Facilities Planning

Melvin Frasier, Jr.
Facilities Management

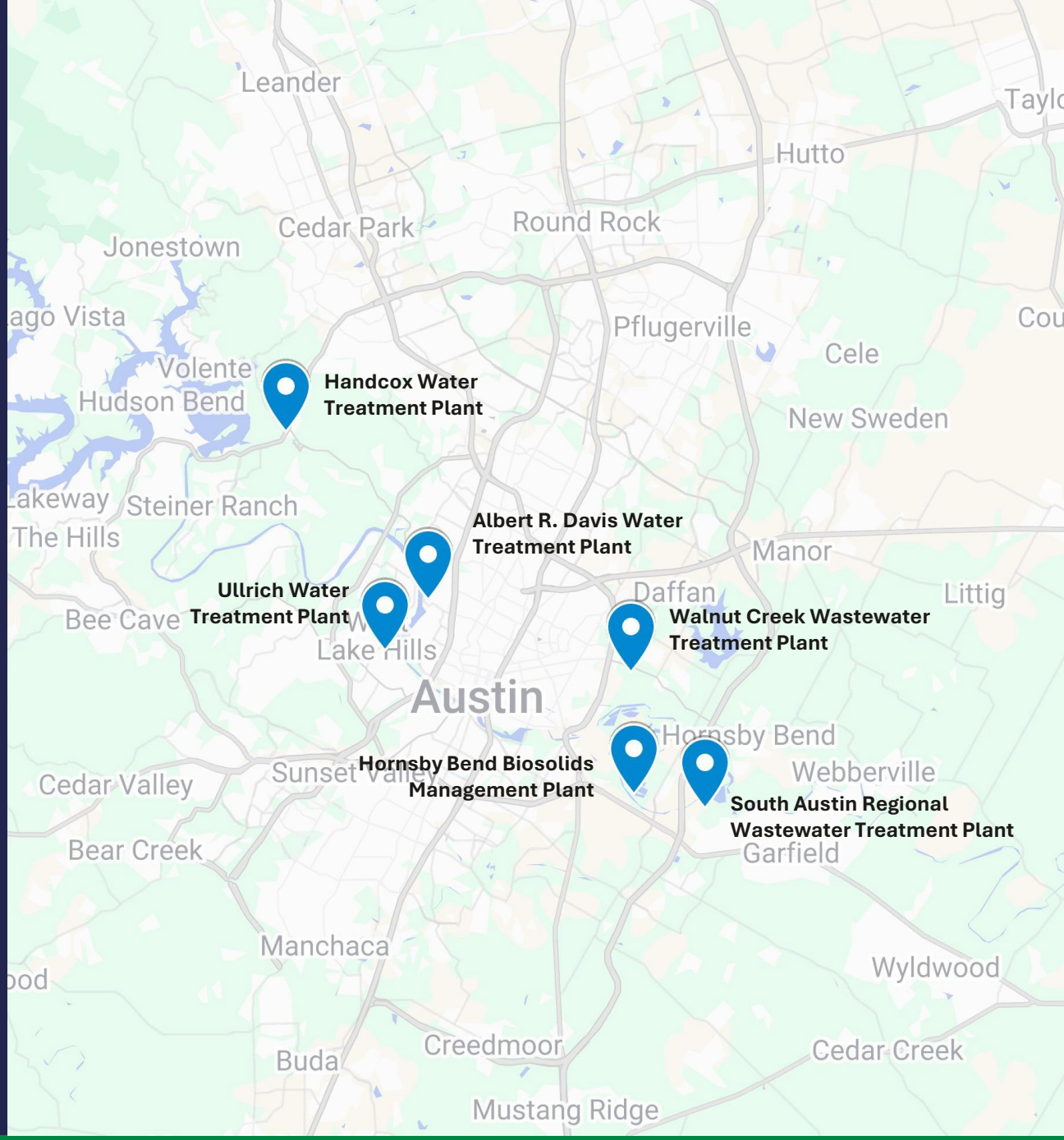
Austin Water Facilities At A Glance

- **Serving more than 1 million customers over a 548 square mile area**
- **63 buildings at 20 locations that provide:**
  - Office space
  - Call centers
  - Service centers that deploy crews in response to customer calls
  - Emergency operations
  - Laboratories
  - Warehouses and storage
  - Training and meeting areas
  - Shop areas
  - Parking

Austin Water Facilities

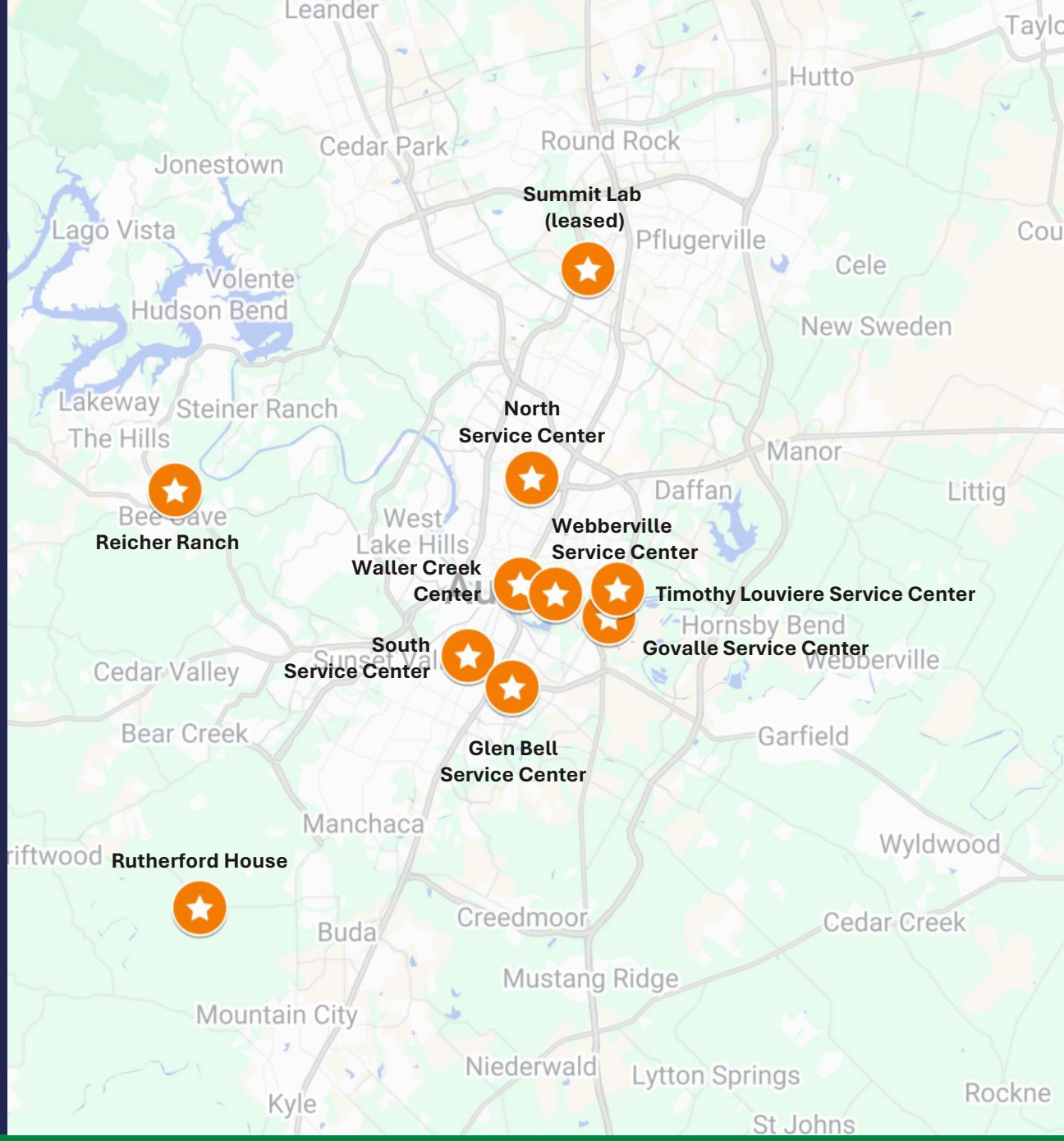
Permanent Facilities to Maintain and Upgrade

- Handcox Water Treatment Plant
- Davis Water Treatment Plant
- Ullrich Water Treatment Plant
- Walnut Creek Wastewater Treatment Plant
- South Austin Regional Wastewater Treatment Plant
- Hornsby Bend Biosolids Management Plant



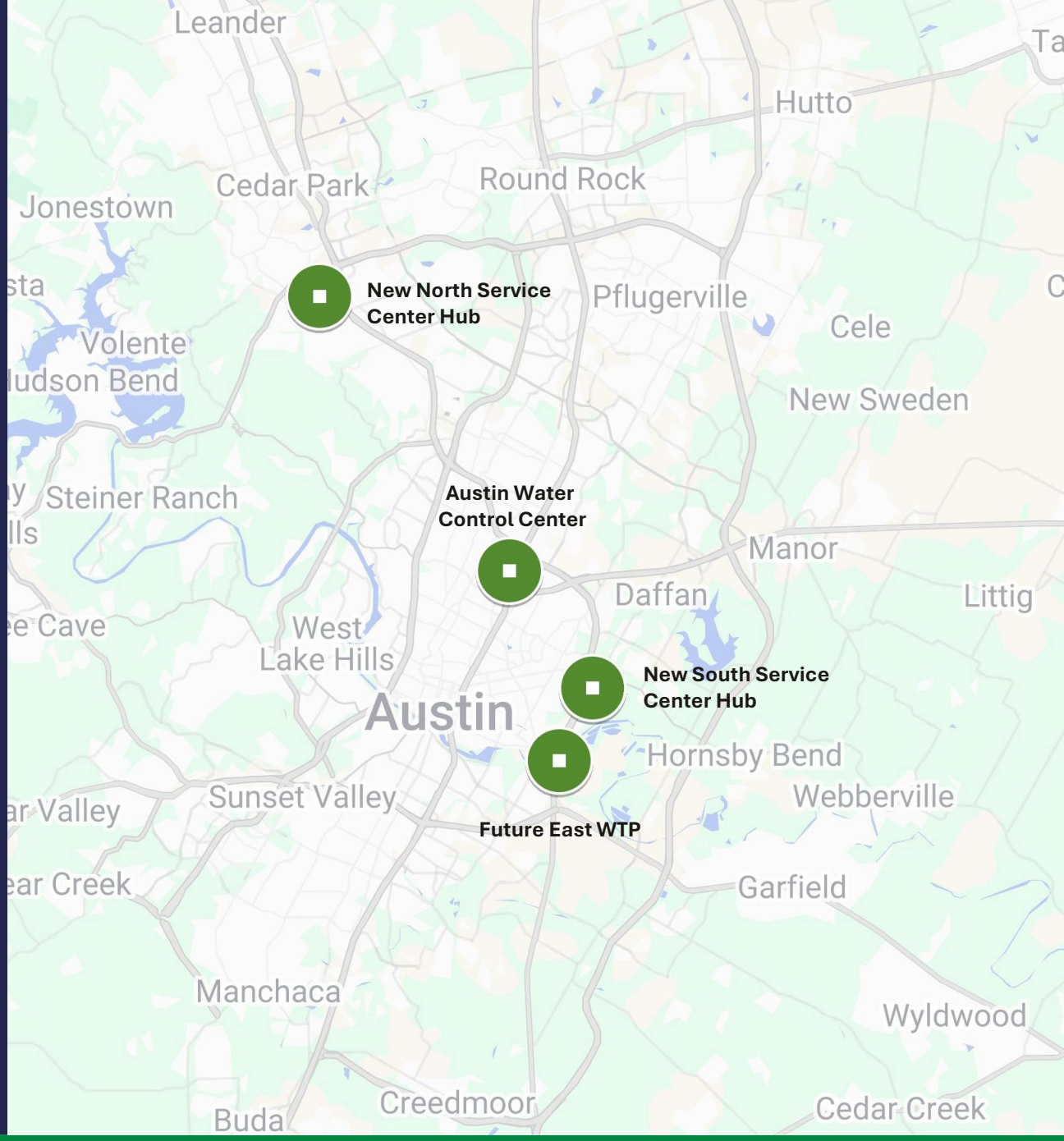
Facilities to Improve for Better Customer Service

- Waller Creek Center
- South Service Center
- North Service Center
- Webberville Service Center
- Timothy Louviere Service Center
- Govalle Service Center
- Glen Bell Service Center
- Summit Lab (leased)
- Reicher Ranch
- Rutherford House



New and Future Properties to Enhance Efficiency

- New North Service Center Hub
- Future East Water Treatment Plant
- Austin Water Control Center
- New South Service Center Hub



Key Projects Underway

- Austin Water Control Center
- Waller Creek Center Renovation

New South Service Center Hub

Facilities Planning Summary

- Flexibility in meeting the needs of the future
- Balancing routine maintenance with long term functional needs
- Looking for synergies to enhance efficiency and responsiveness
- Incorporating sustainable elements
- Improving work environments for Austin Water employees

Planning for Major Construction Projects

Charles Celauro, P.E.
Assistant Director of Engineering Services

Major Projects Planning Overview

Mitigating risks on complex projects:

- Project delivery method
- Phasing and construction bid packages
- Sequenced construction across miles of area
- Connections to existing infrastructure
- Maintaining continuous operations
- Protecting waterways
- Minimizing impacts to surrounding neighbors

Major Project Examples

Infrastructure Rehabilitation

- Williamson Creek Wastewater Interceptor
- Renewing Austin Pipeline Replacement

Operational Enhancements

- Reclaimed Distribution System
- Handcox Water Treatment Plant Resiliency Improvements

System Expansion

- Davis Medium Service Transmission Main
- Walnut Creek Wastewater Treatment Plant Expansion & Enhancements

Infrastructure Rehabilitation Projects

Williamson Creek Wastewater Interceptor

PLANS FOR PROJECT CHALLENGES:

- Tunneling
- Reconnections
- Pipeline Rehabilitation
- Proper Abandonment
- Creek Protection
- Greenbelt Expansion
- New Odor Control Facility
- Expanded Community Access

Renewing Austin Pipeline Replacement

Plans for project challenges:

- Identifying poor performing mains
- Prioritizing rehabilitation efforts
- Street and right-of-way impacts
- Traffic revisions
- Impacts to trees and vegetation
- Service restoration for customers

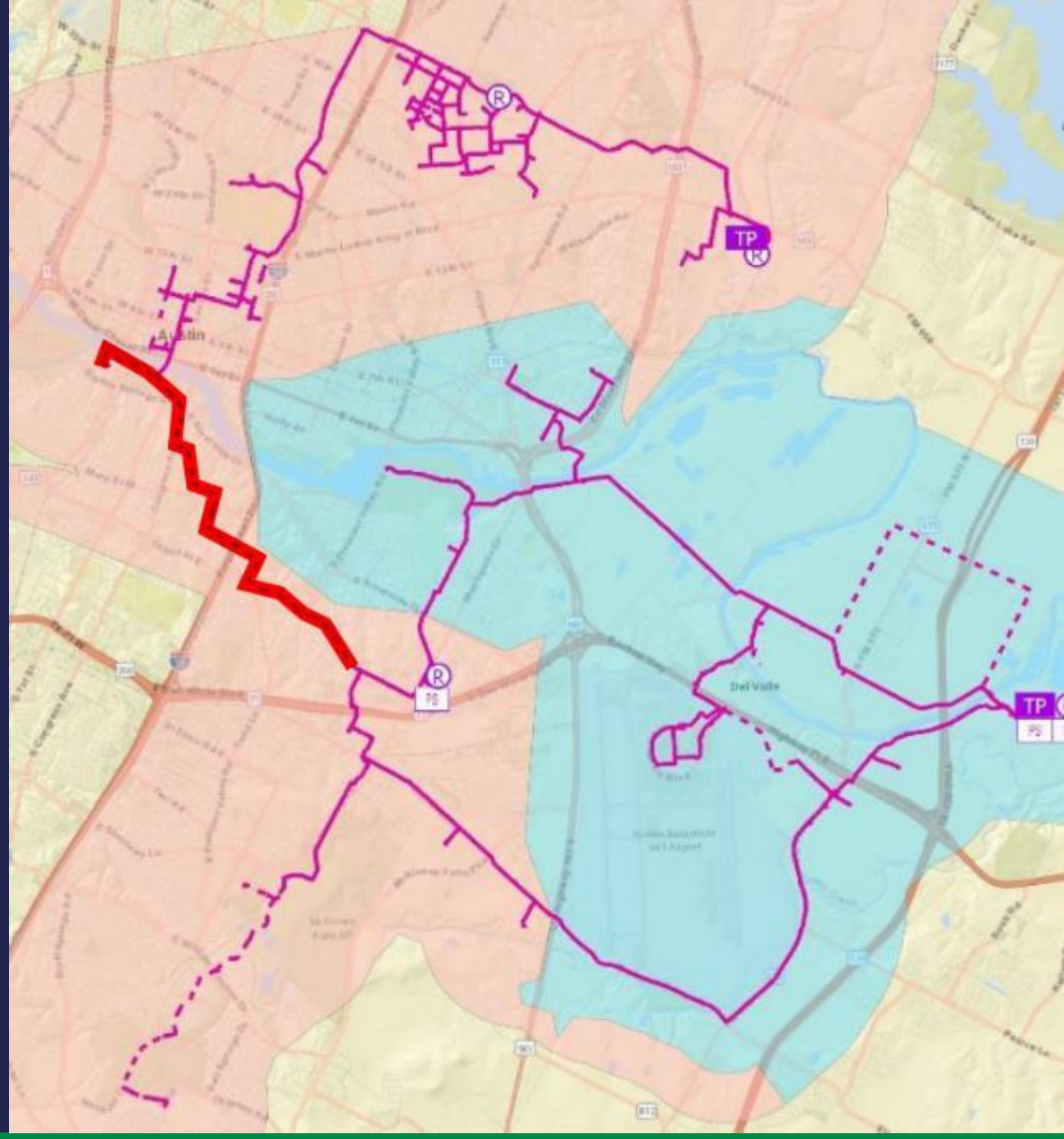
Operational Enhancement Projects

Reclaimed Distribution System

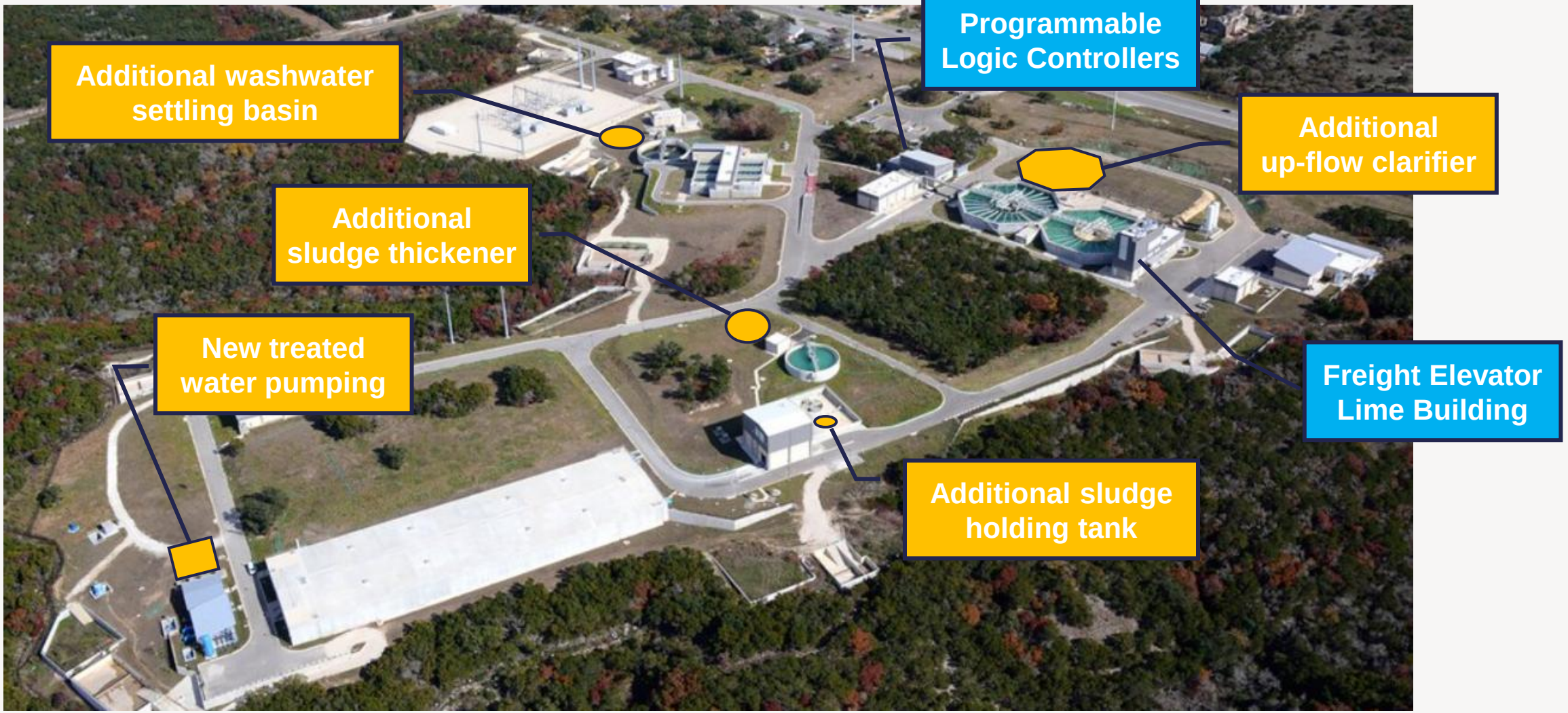
“Completing the Core”

5 remaining projects to connect Walnut and South Austin Regional reclaimed “purple pipe” distribution systems:

- Oltorf St Reclaimed Water Main Phase 1 (Complete - Warranty Phase)
- Oltorf St Reclaimed Water Main Phase 2 (In construction – 50% complete)
- Travis Heights Reclaimed Water Main (Bid Phase - Bid Date: September 28, 2025)
- South 1st Street Reclaimed Water Main (90% Design Submittal)
- West Riverside Reclaimed Water Main (100% Design Submittal)



Handcox Water Treatment Plant Resilience Improvements



System Expansion Projects

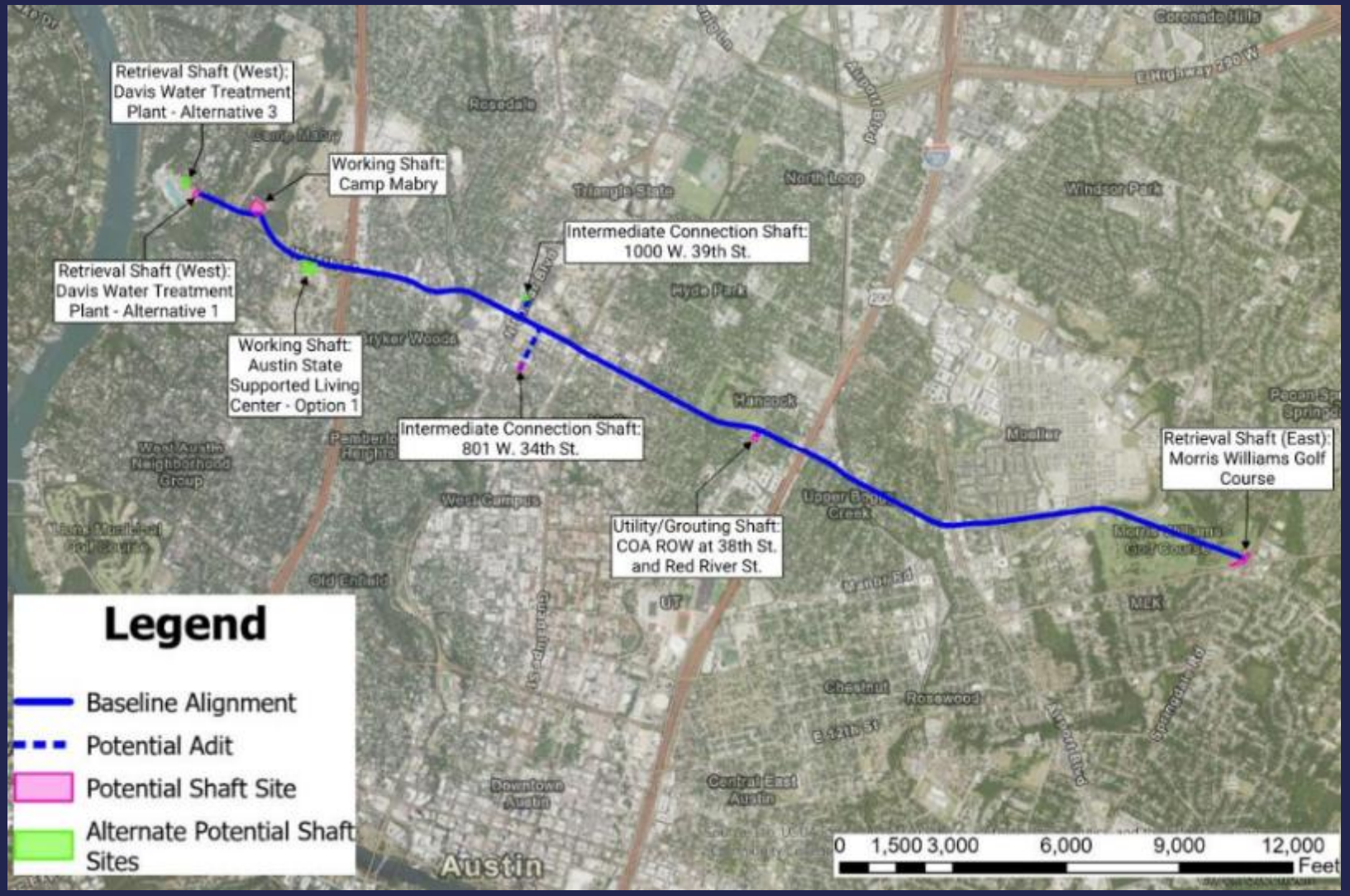
Davis Medium Service Transmission Main

Austin

Purpose: Increase utilization of Davis Water Treatment Plant in Central Pressure Zone

Plans to address challenges:

- Tunneling
- Construction over miles of area
- Mitigating impacts to neighbors
- Maintaining continuous operations



Walnut Creek Wastewater Treatment Plant Expansion and Enhancements

- Treatment Process Basins
- Treatment Process Buildings
- Flood Protection

Expanded Capacity

Upgraded Treatment

Flood Protection

Advanced Odor Control

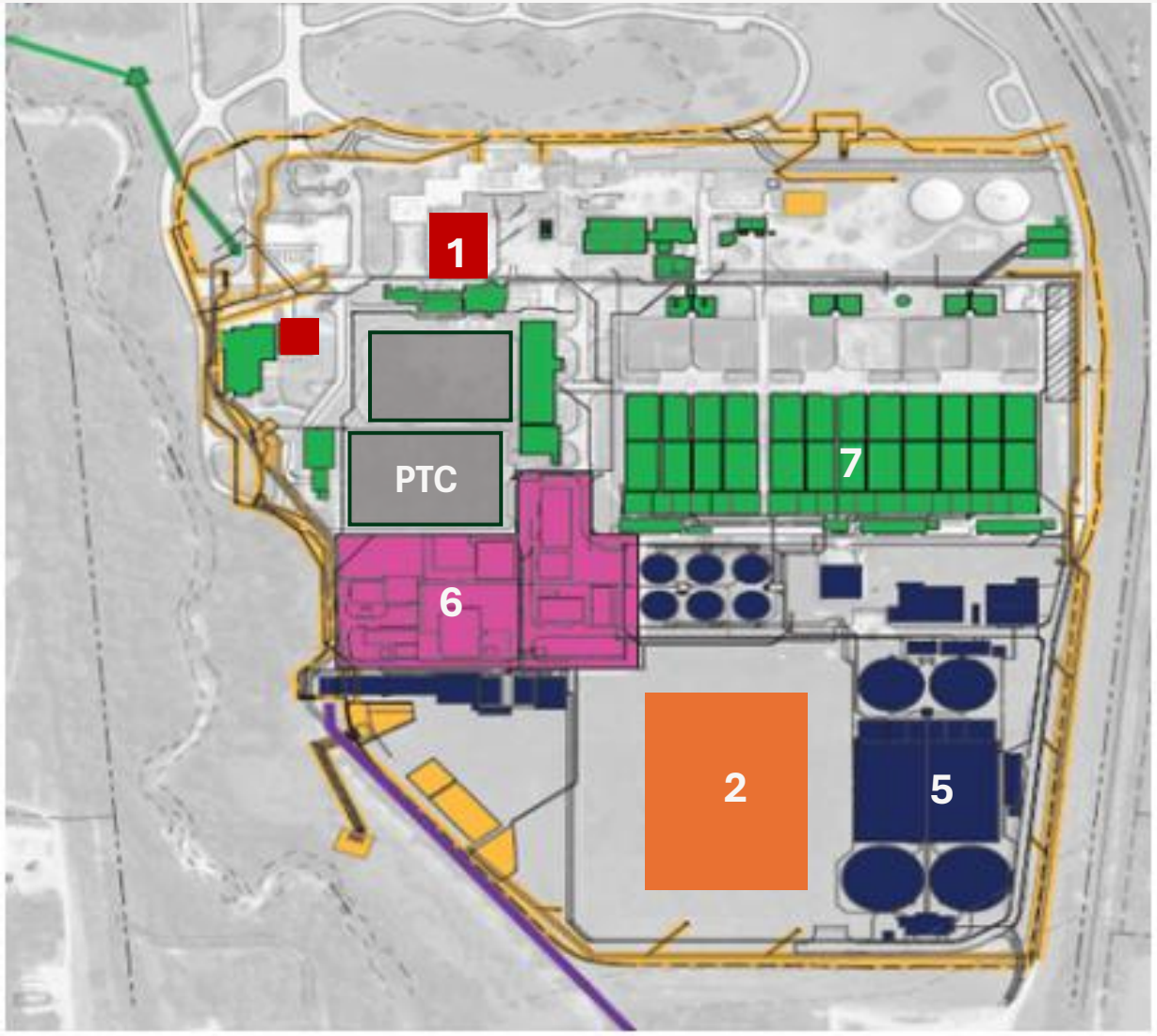
Plant-Wide Modernization

Safer Disinfection Process

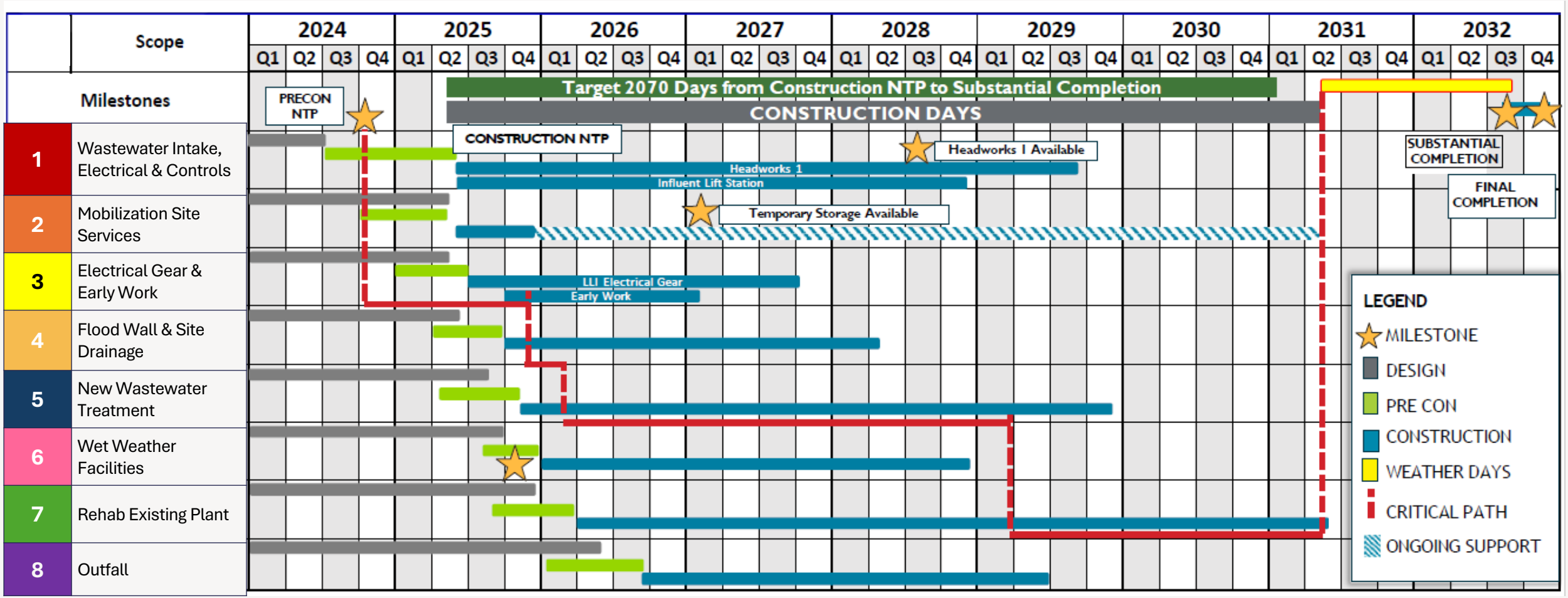
Continuous Service

Construction Package Planning

1	Wastewater Intake Station, Electrical and Controls
2	Construction Staging Area
4	Floodwall and Site Drainage
5	New Wastewater Treatment
6	Wet Weather Facility
7	Rehabilitation of Existing Wastewater Treatment
8	Outfall
PTC	Rehab Solids Removal and Flow Basin



Construction Schedule



Final Preliminary Engineering Report – August 2022
CMAR Advertisement – January 2023

On-Going Planning During Project Process

Cost Tracking and Adjustments:

- Inflation: Significant inflation-related escalation in the cost of goods and services.
- Labor: Ongoing skilled labor shortages.
- Constructability: Constraints that require additional bypass treatment.
- Constraints: Site access limitations that require specialized equipment or sequencing.
- Scope changes: Meeting permitting and regulatory compliance requirements
- Cost Estimate: Detailed construction drawings at this stage of the project result in more comprehensive and accurate cost estimates.

Questions?

Austin

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