

Reclaimed Water Feasibility Study

Update and Recommended Next Steps

May 10, 2022



2015 Reclaimed Water Master Plan

- Central WWTP Effluent
 - Type I Reuse Permit
 - Reuse Contract – Northeast Metro Park
- Alternative Evaluation
- Recommendations
- Implementation

Reclaimed Water Feasibility Study

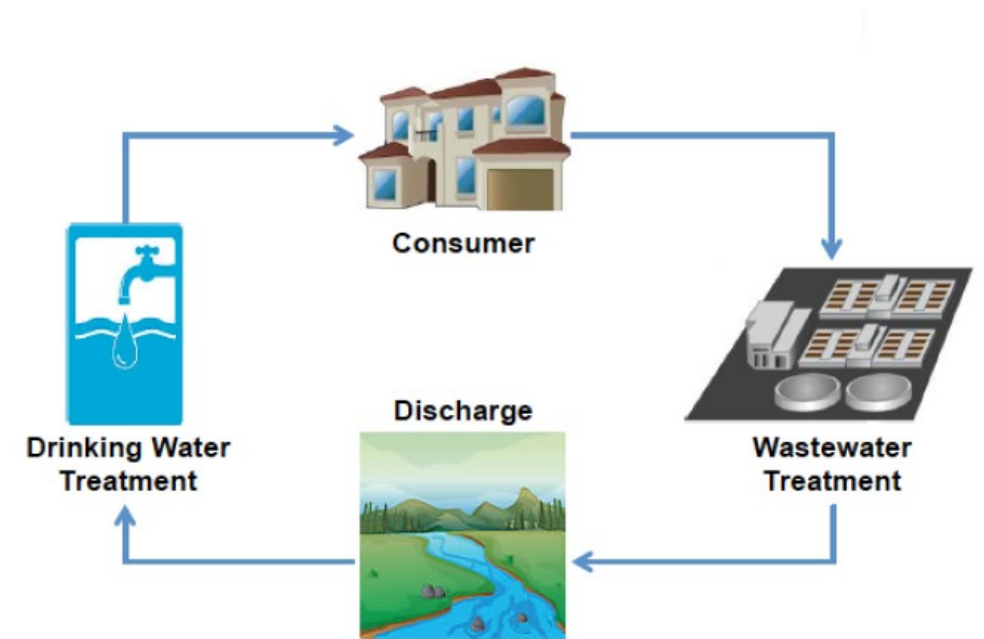
- Wilbarger Creek Regional WWTF
 - Additional Reuse Flow
 - Wilbarger Creek Sewershed
 - Cottonwood Creek Sewershed
- Reclaimed Water Strategies
 - Inventory Central WWTP Reuse
 - Pflugerville Planning/Development
 - Central Texas Water Supply/Demand
- Pflugerville Reclaimed Water
 - Define Alternatives to Leverage Resource
 - Recommend Next Steps



Reclaimed Water Defined

Reclaimed Water Categories

- Wastewater Effluent Discharge
 - Indirect Reuse – Discharged to Waters of the State
 - Direct Reuse – Straight from WWTP to Reclaimed Water Customer
 - Irrigation – Golf Course, Athletic Fields, Parks
 - Industrial/Manufacturer Use – Cooling Towers, Semi-Conductors



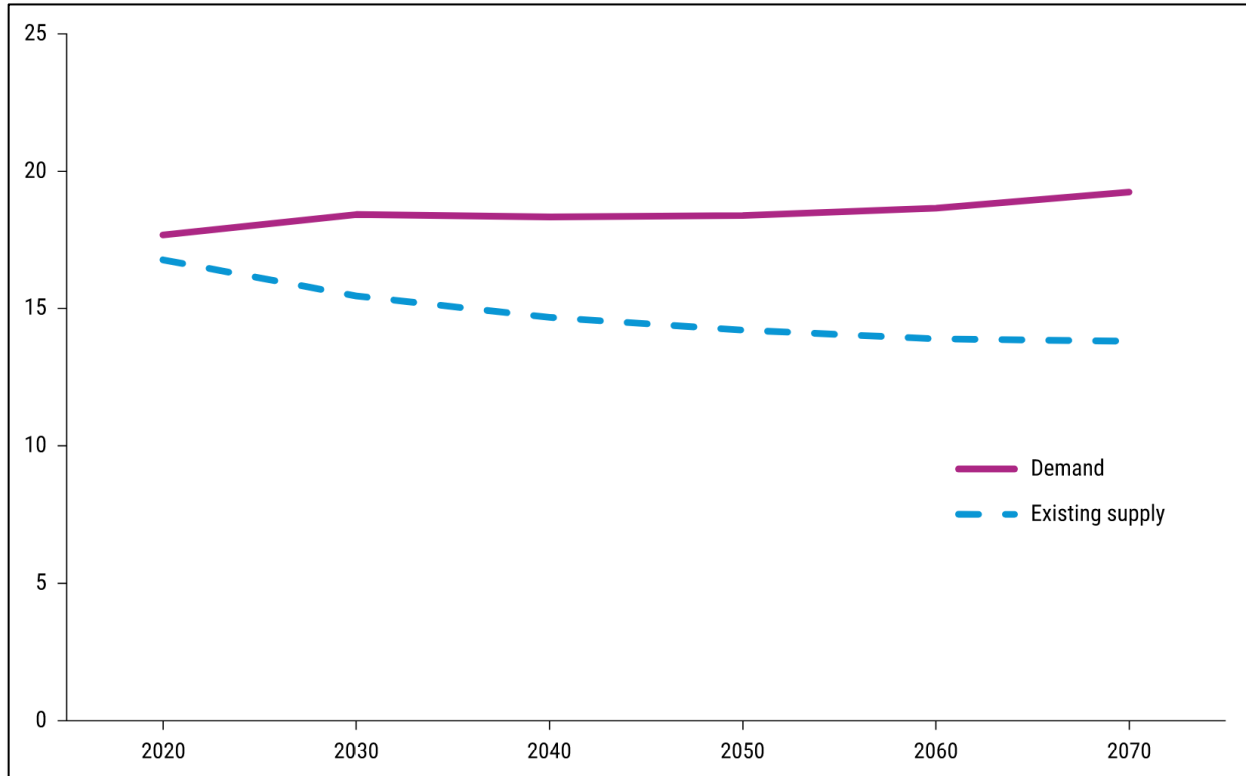
Source: Courtesy of WaterReuse Research Foundation, 2015



Texas Water Supply

2022 State Water Plan

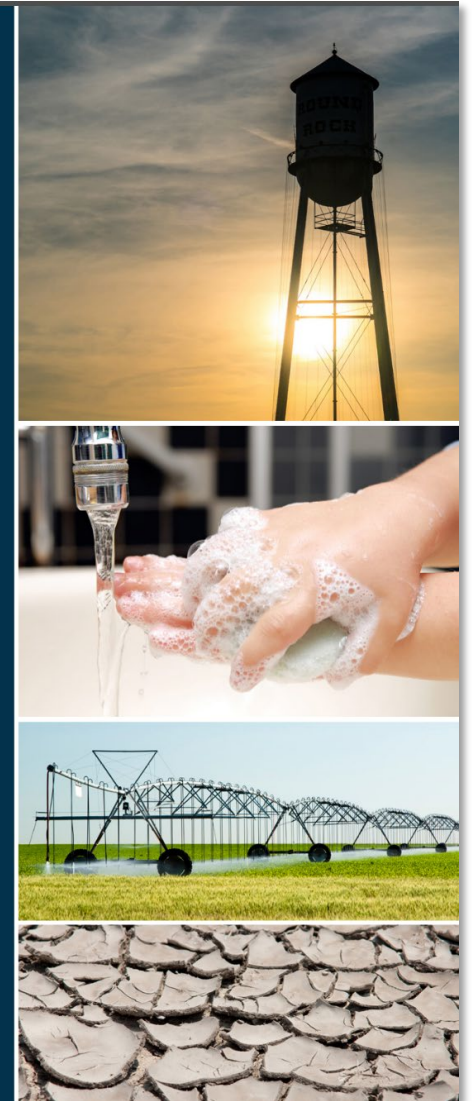
- Water Supply Deficiency



2022
State Water Plan

WATER
FOR
TEXAS

Texas Water
Development Board



Existing Reclaimed Water System

Central Wastewater Treatment Plant

- Discharges 6.0 Million Gallons per Day (MGD) Average Daily Flow (ADF)
- Reclaimed Water for Irrigation – Began in 2000
 - Northeast Metro Park
 - 2020 Total Reclaimed Water Purchased – 21 MG
 - Reclaimed Water < 1% of ADF Available



Central Wastewater Treatment Plant

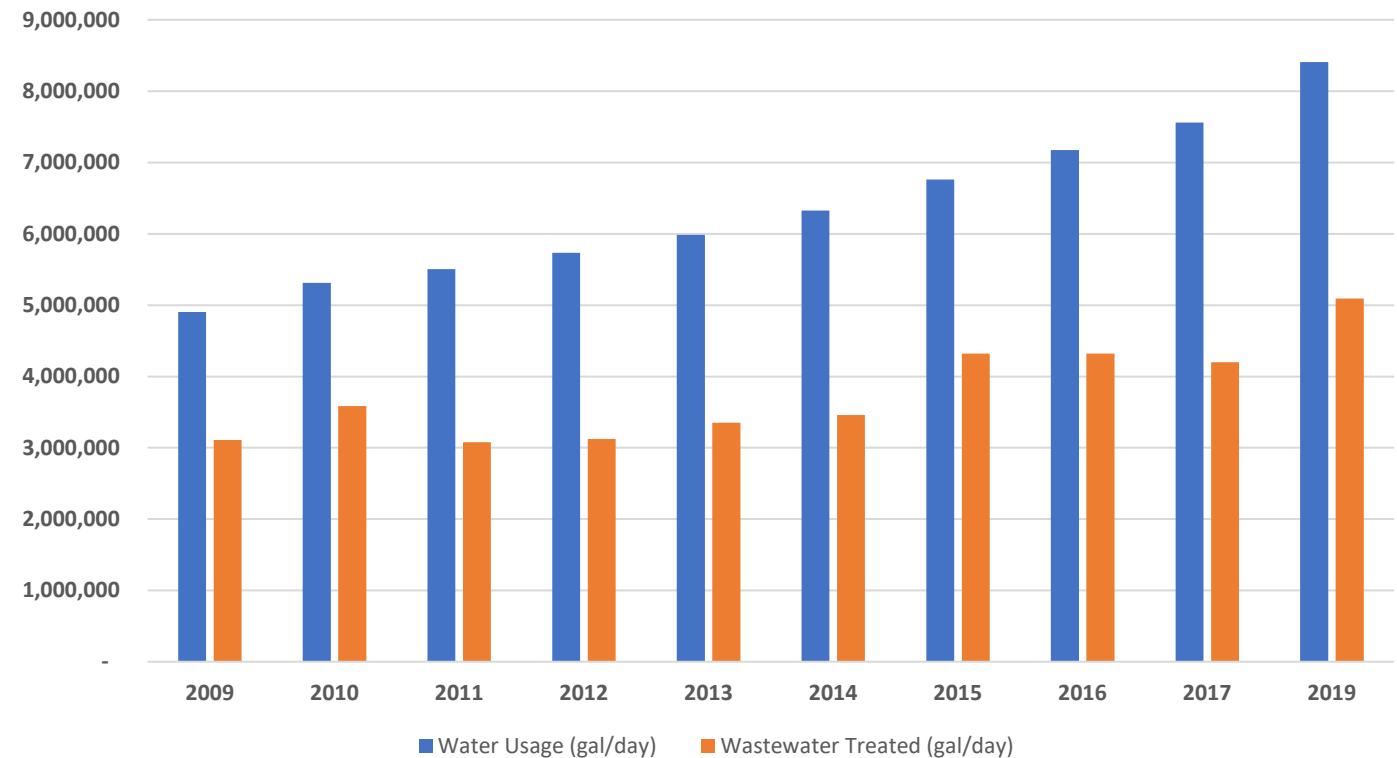


Historical Water Usage/Treated Wastewater

Reclaimed Water

- 60% Recoverable Water Potential
- 1 gal of Potable Water Used Yields 0.60 gal of Wastewater Discharge
- Reliable Reclaimed Water Percentage is 80% of Min Day Wastewater Discharge
- Seasonality Variations Reduce Reliable Reclaimed Water Potential
- Reliable Reclaimed Water Potential is Less than Half of Average Daily Water Demand

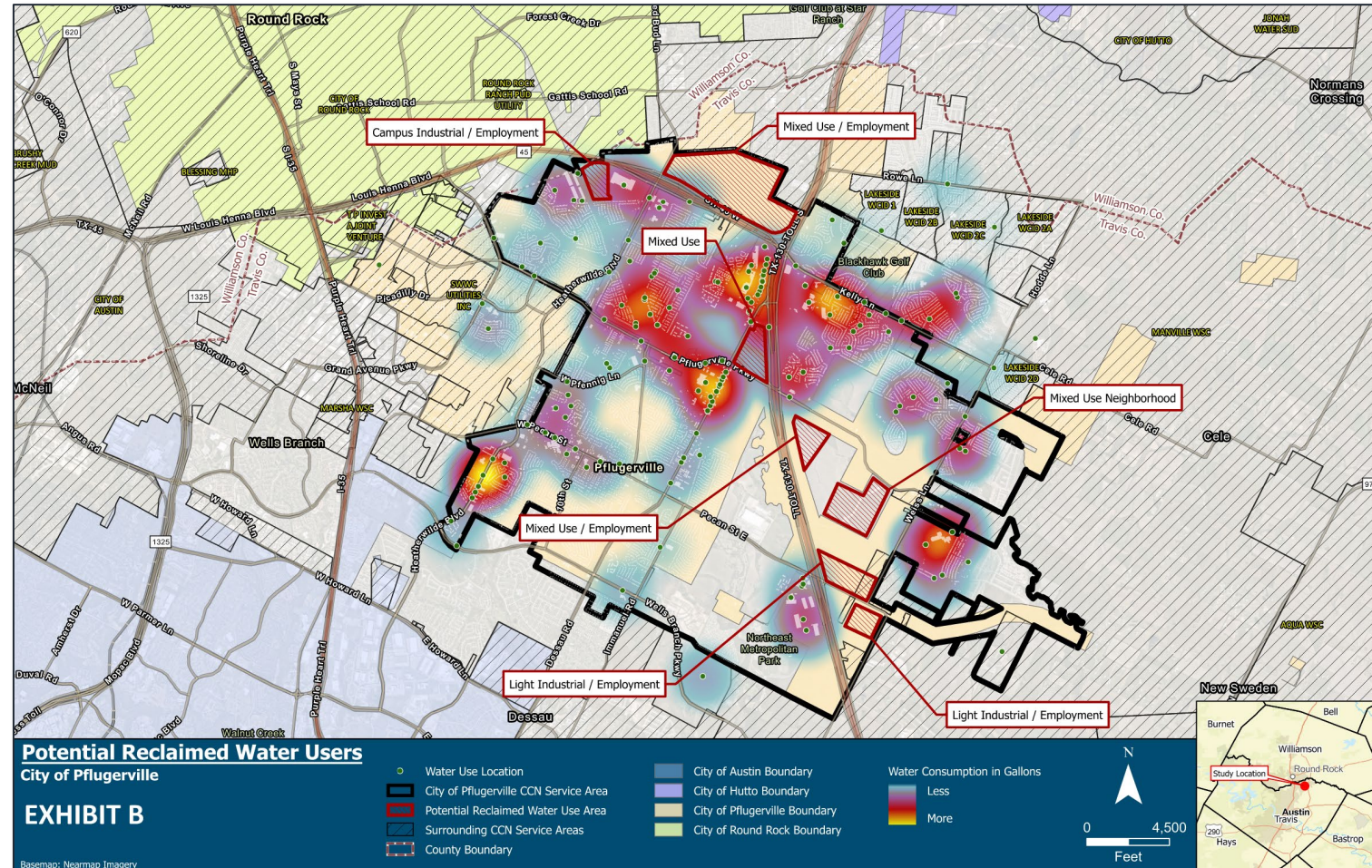
RECOVERABLE WATER RESOURCE



Reclaimed Water System Opportunities

Reclaimed Water Feasibility Study

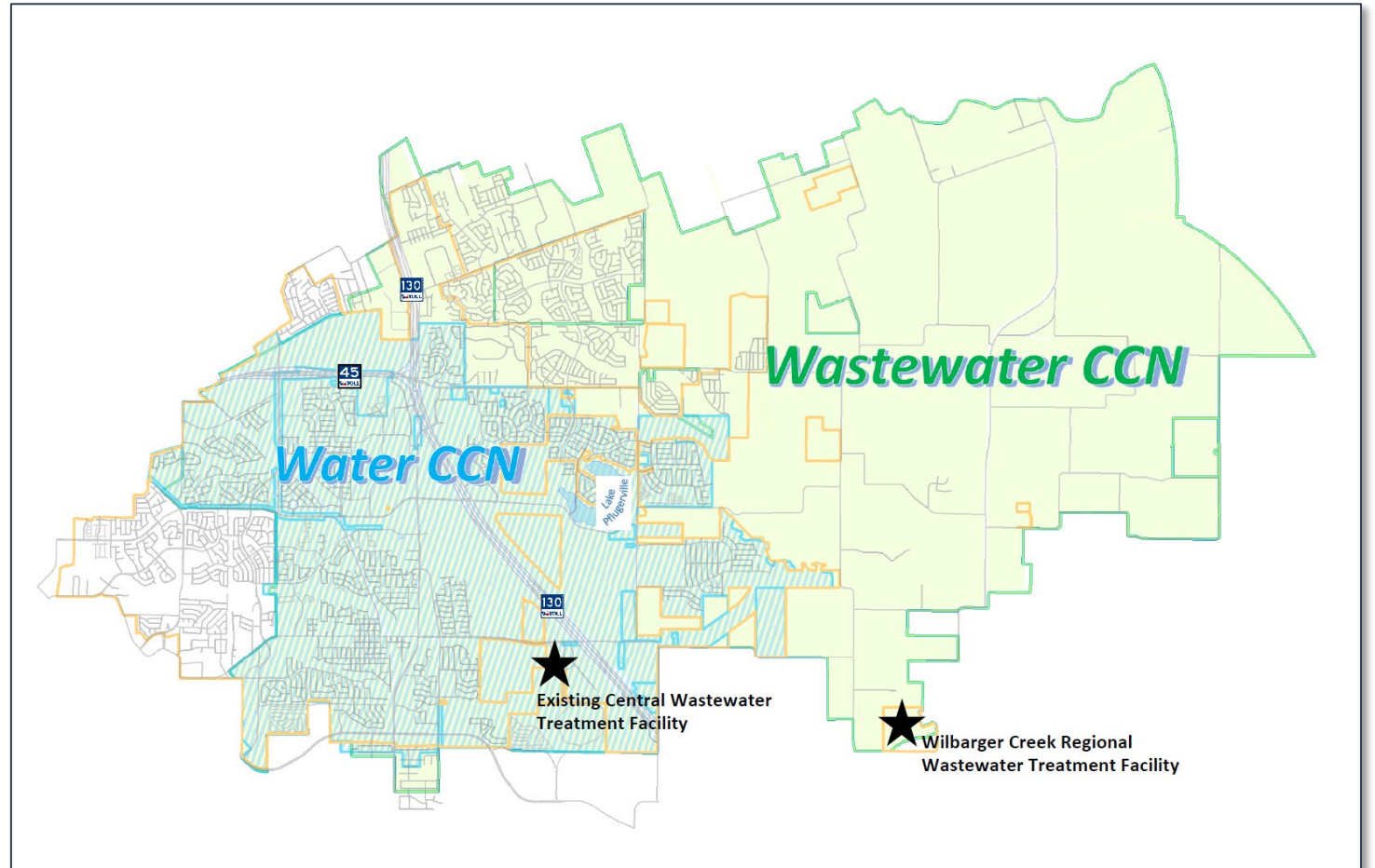
- Opportunities to Expand the Existing System
 - Anchor Customers
 - Large Potable Water Users
 - Top 400 Water Users
 - 160 Identified Top Water Users
 - 100% of the 160 Top Water Users
 - Reclaimed Water Demand 237 MGD
 - Reclaimed Water ~ 0.7 MGD
 - Central WWTP Projected 10 MGD
 - Reclaimed Water ~ 7% of ADF



Reclaimed Water System Opportunities

City Uniquely Positioned to Leverage Reclaimed Water

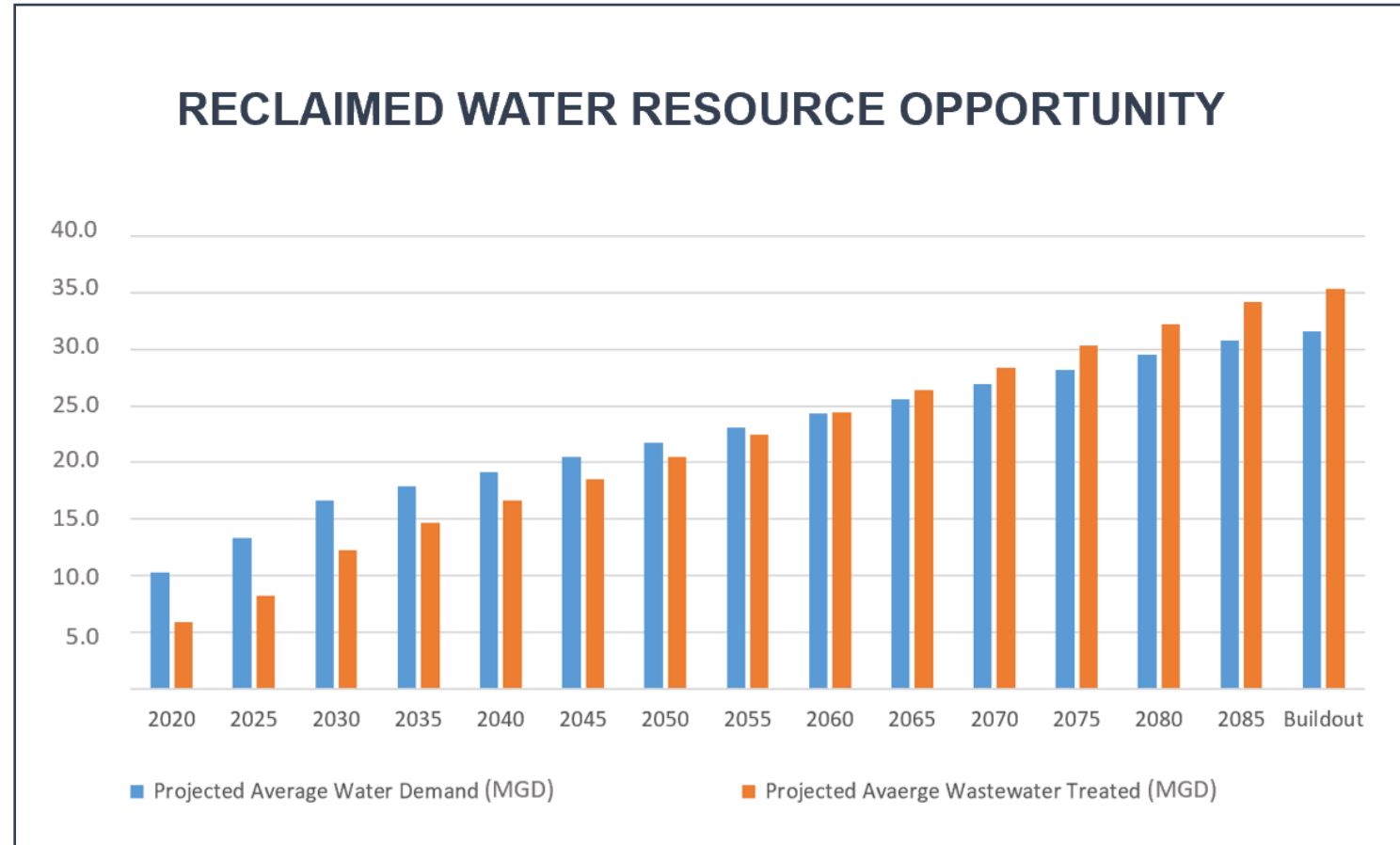
- Wastewater Service Area is Greater than Water Service Area
- Reclaimed Water Availability Advantage



Reclaimed Water Availability Advantage

Projected Water Demand/Wastewater Flow

- 2061 - Projected Wastewater Flow **Equals** Projected Water Demand
- Valuable Resource Opportunity
 - Provides Reliable Water Supply during Drought
 - Existing Easements with Minimal Transmission Infrastructure
 - Advanced Treatment/Water Quality Requirements
- Transition from Non-Potable Water Reuse to Potable Water Reuse



Indirect Potable Reuse Feasibility

Considerations

- Public Health & Water Quality Protection
 - Discharge to Lake Pflugerville
 - Blend at Water Treatment Plant
- TCEQ Regulations
 - Development of Specific Requirements On-going
 - Water Quality Pilot Testing
- Public Outreach & Messaging
- Texas Water Development Board Clean Water State Revolving Fund Eligibility
- Development & Implementation
 - Schedule
 - Costs



Water Supply Diversity & Security

Recommendations & Next Steps

- Central WWTP – Reclaimed Water System
 - Maintain Non-Potable Water Reuse
 - Irrigation & Industrial/Manufacturing
- Wilbarger Creek Regional WWTF – Reclaimed Water System
 - Indirect Potable Reclaimed Water Study
 - TCEQ Coordination & Water Quality Pilot
 - Define Required Project Components
 - Develop Implementation Costs & Schedule

