# BARTON CREEK INTERCEPTOR

## Resolution No. 20240530-116

**Austin Water**
**Oversight Committee**
**November 12, 2024**

**CHARLES CELAURO, PE**
**ASSISTANT DIRECTOR, ENGINEERING SERVICES**

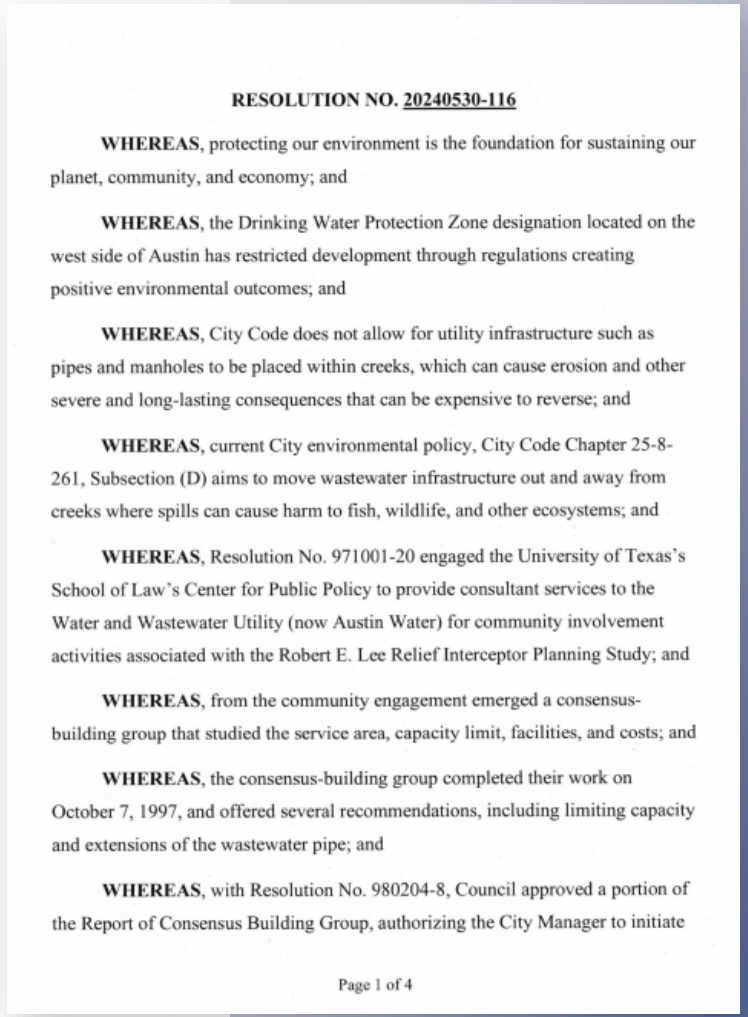
# Agenda

1. Resolution No. 20240530-116
2. Barton Creek Health
3. Representative Stakeholders for Development
4. Barton Creek Interceptor
5. Conceptual Mopac Interceptor
6. Relocation of the Barton Creek Interceptor
7. Next Steps

# Resolution No. 20240530-116

On May 30, 2024, City Council approved Resolution **No. 20240530-116**, that described the history and attributes of a wastewater interceptor currently known as the Barton Creek Interceptor (BCI).

- Identify options for moving the interceptor out of the Barton Creek Critical Water Quality Zone (CWQZ) and restoring needed capacity in the interceptor,
- Work with the representatives of proposed redevelopment projects serviced by the interceptor with the goal of facilitating redevelopment that improves environmental protection, and
- Return with an update and recommendations to the Austin Water Oversight Committee Meeting on November 12, 2024.



**RESOLUTION NO. 20240530-116**

**WHEREAS**, protecting our environment is the foundation for sustaining our planet, community, and economy; and

**WHEREAS**, the Drinking Water Protection Zone designation located on the west side of Austin has restricted development through regulations creating positive environmental outcomes; and

**WHEREAS**, City Code does not allow for utility infrastructure such as pipes and manholes to be placed within creeks, which can cause erosion and other severe and long-lasting consequences that can be expensive to reverse; and

**WHEREAS**, current City environmental policy, City Code Chapter 25-8-261, Subsection (D) aims to move wastewater infrastructure out and away from creeks where spills can cause harm to fish, wildlife, and other ecosystems; and

**WHEREAS**, Resolution No. 971001-20 engaged the University of Texas's School of Law's Center for Public Policy to provide consultant services to the Water and Wastewater Utility (now Austin Water) for community involvement activities associated with the Robert E. Lee Relief Interceptor Planning Study; and

**WHEREAS**, from the community engagement emerged a consensus-building group that studied the service area, capacity limit, facilities, and costs; and

**WHEREAS**, the consensus-building group completed their work on October 7, 1997, and offered several recommendations, including limiting capacity and extensions of the wastewater pipe; and

**WHEREAS**, with Resolution No. 980204-8, Council approved a portion of the Report of Consensus Building Group, authorizing the City Manager to initiate

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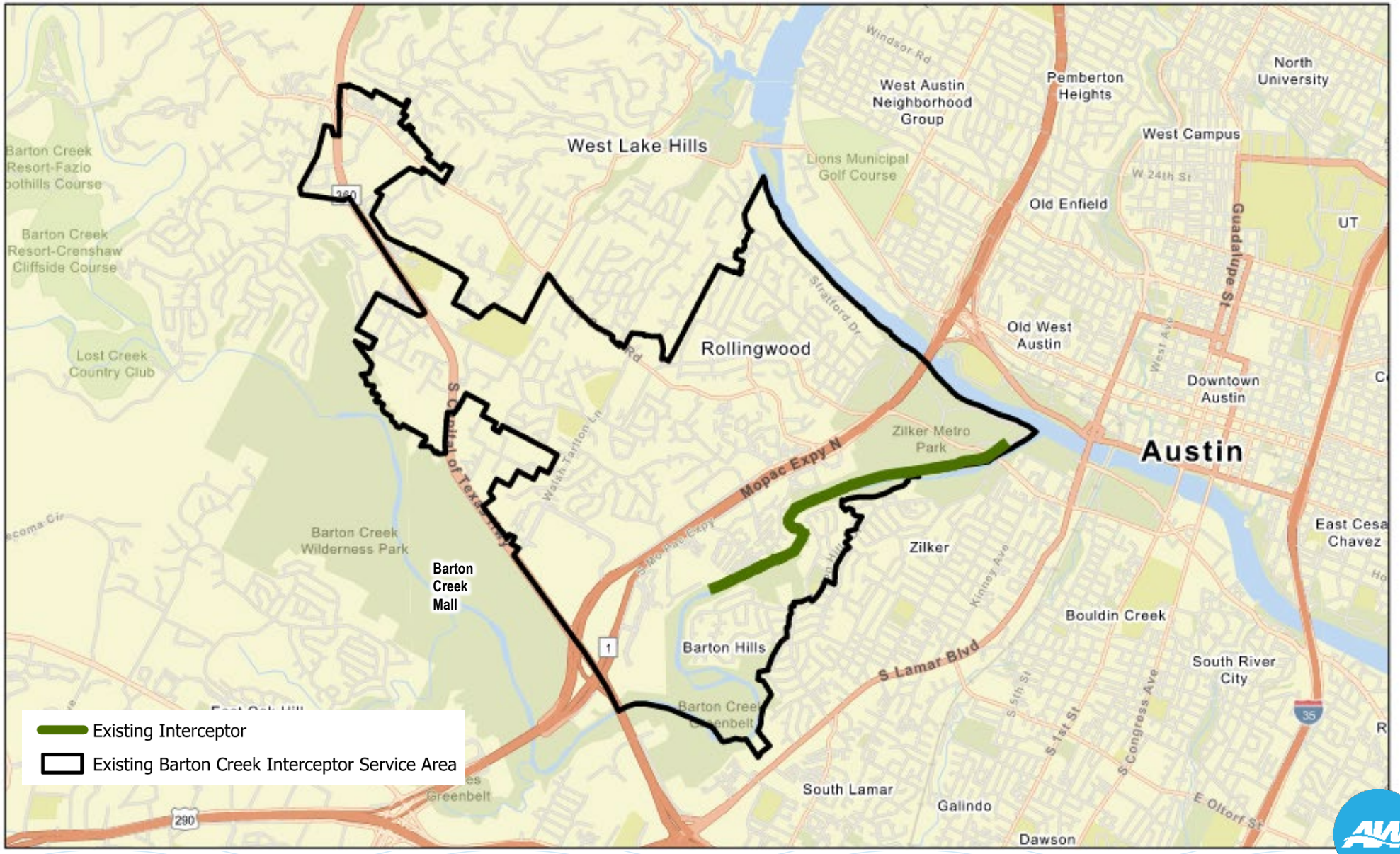
# Study Area


West Lake Hills
Rollingwood
Austin
Barton Creek Wilderness Park
Barton Creek Mall
Zilker Metro Park
Zilker
Barton Hills
Lions Municipal Golf Course
Lost Creek Country Club
Barton Creek Resort-Fazio Foothills Course
Barton Creek Resort-Crenshaw Cliffside Course
West Austin Neighborhood Group
Pemberton Heights
North University
West Campus
Old Enfield
UT
Old West Austin
Downtown Austin
East Cesar Chavez
Bouldin Creek
South River City
South Lamar
Galindo
Dawson
Mopac Expy N
S Lamar Blvd
Guadalupe St
S Congress Ave
Existing Interceptor
Existing Barton Creek Interceptor Service Area

# Barton Creek Health

- Barton Creek is one of Austin's healthiest streams
- 2013-2023 Environmental Integrity Index is the 6th highest of 49 creeks
- 2013-2023 Contact Recreation Score is the 6th highest of 49 creeks
- 2006-2021 Water Quality score for Barton Creek Reach 1 is between Good and Fair
- 2006-2023 *E. coli* samples shown 2 samples out of 23 above TCEQ threshold

# Development in the Study Area

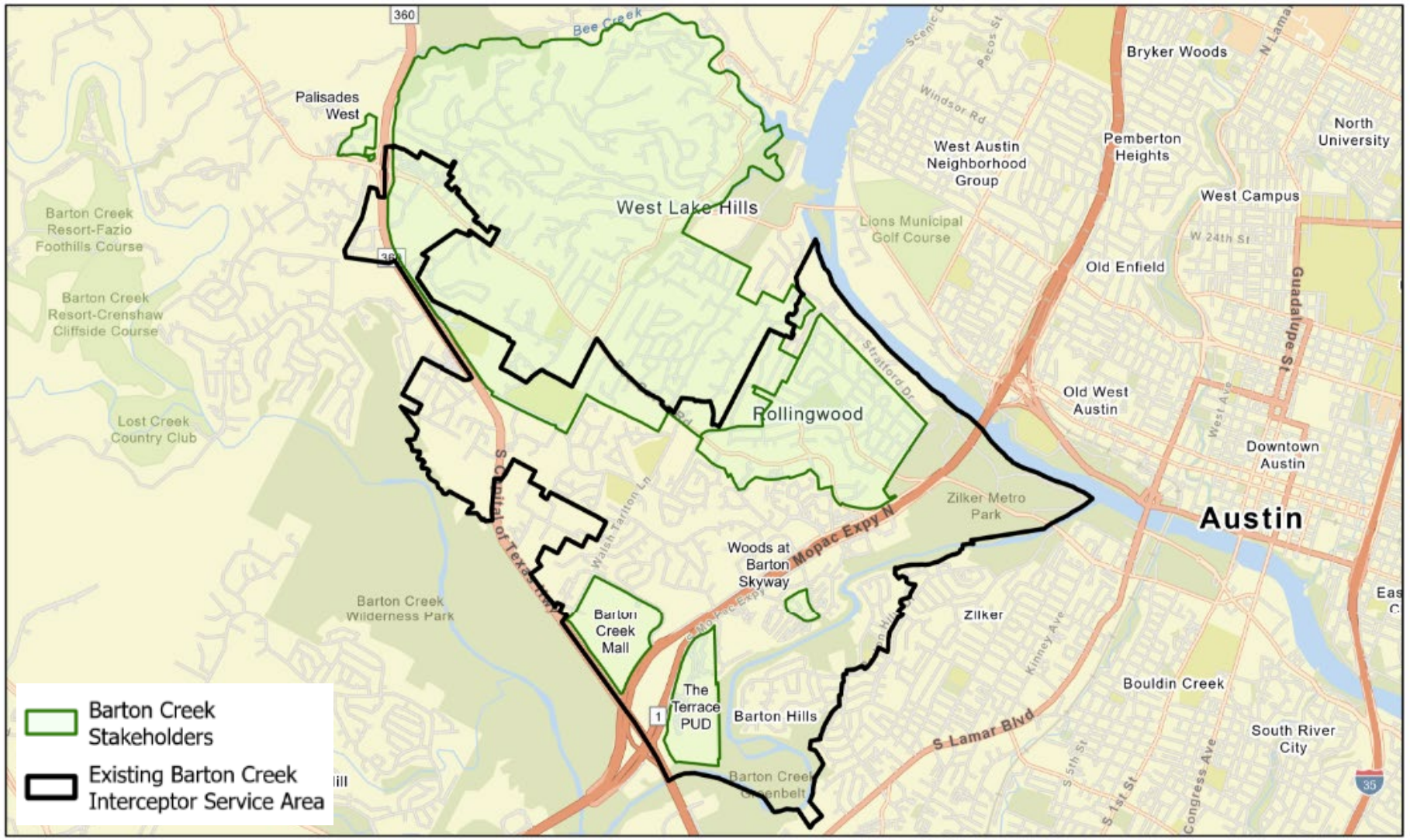
- Properties developed before the Save Our Springs Initiative (SOS) was adopted in 1992:
  - More impervious cover than currently allowed under SOS regulations
  - Substandard or no water quality treatment
  - Development closer to sensitive areas than would be permitted today

- Redevelopment of existing properties must comply with either SOS regulations or a "redevelopment exception"
  - Improve onsite water quality treatment
  - Reduce or restore impacts on environmental buffers
  - Provide mitigation, by purchasing mitigation land or contributing to a fund for land acquisition

# Consensus Group Design Flows

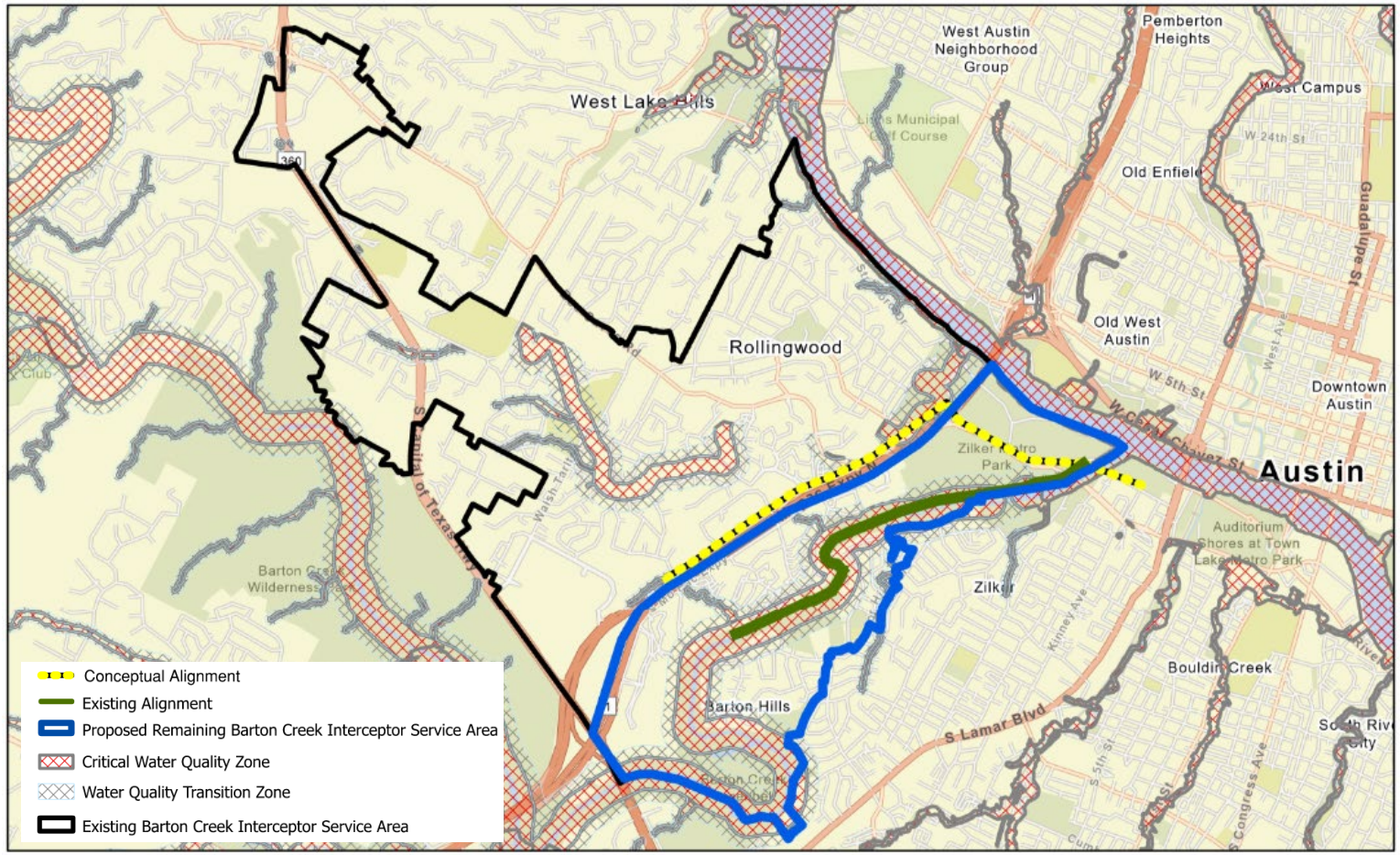
- 1996 Robert E. Lee Road Interceptor Study and 1997 Consensus Building Group
- Established maximum wastewater allocation from each section of the study area
- Austin Water uses Consensus Group allocations in reviewing service extension requests for new and redevelopment
- 2002 modifications to Barton Creek Interceptor permanently reduced pipe capacity

# Representative Stakeholders for Development



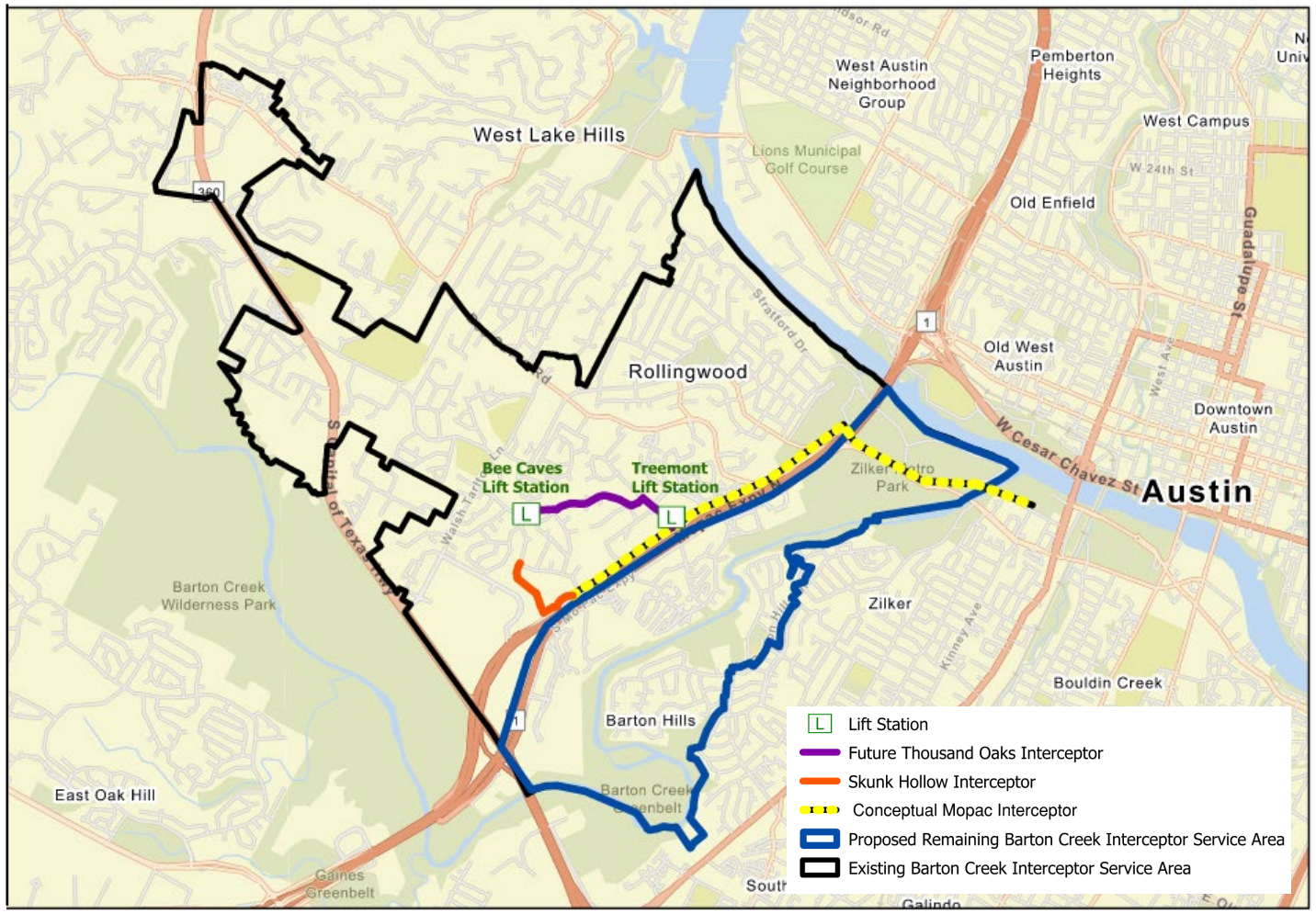

- City of West Lake Hills
- City of Rollingwood
- Woods at Barton Skyway
- Barton Creek Mall
- The Terrace PUD
- Palisades West

# Conceptual Mopac Interceptor




- Conceptual alignment is approximately 13,900 linear feet
- Under 20% encroachment in
  - Critical Water Quality Zone
  - Erosion Hazard Zone
  - 100-year flood plain

# Mopac and Thousand Oaks Interceptors



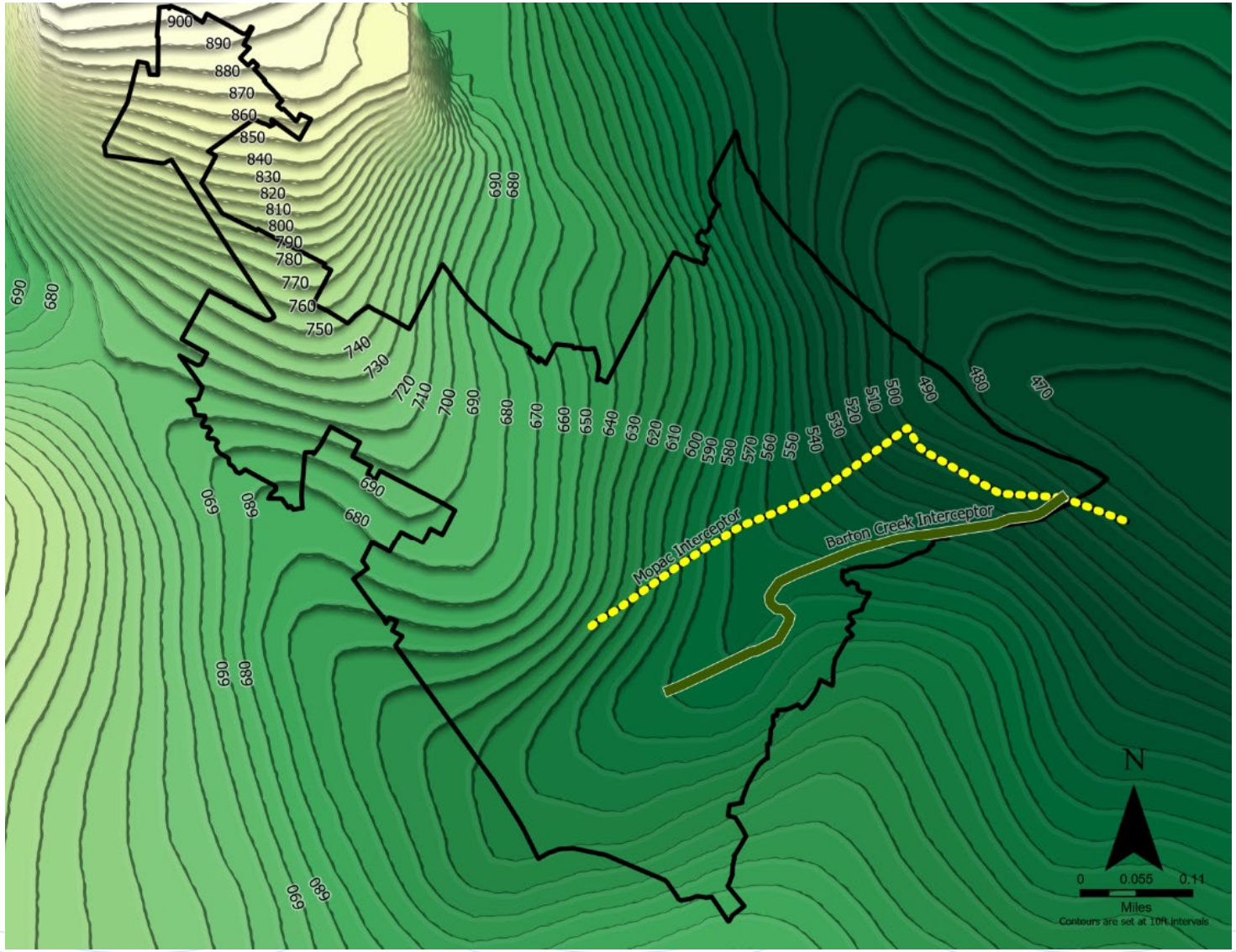

**Interceptor improvements would:**

- Eliminate two existing lift stations
- No new lift stations
- Eliminate three existing crossings under Mopac
- Reduce the BCI contributing service area to local flows
  - Approximately 65% reduction

# Barton Creek Interceptor and Performance

- 11,050 linear feet of mostly 24-inch to 36-inch fiberglass reinforced plastic pipe (FRMP)
- Significant encroachments along Barton Creek
  - Critical Water Quality Zone
  - Erosion Hazard Zone
  - 100-year flood plain
- One Sanitary Sewer Overflow (SSO) in 2015
  - 50 gallon spill due to a blockage in the pipe

# Relocation of the Barton Creek Interceptor




**Evaluation Criteria**

- Provide service to existing customers
- Avoid displacing existing homes
- Minimize lift stations
- Provide access for maintenance
- Avoid environmental impacts
- Achieve regulatory compliance

# Relocation of the Barton Creek Interceptor

## **Elevation Cross Section:** Barton Creek Area


## Alternative Routings

- Require Lift Stations in the CWQZ and 100-year floodplain
- Additional crossings of Barton Creek
- Impact existing homes

# Next Steps

**Should City Council direct the City Manager to take steps to serve redevelopment and other wastewater needs contributing to the Barton Creek Interceptor:**

1. Continue monitoring to verify existing flows
2. Continue condition assessment and monitoring
3. Initiate preliminary engineering for Thousand Oaks and Mopac interceptor projects
4. Evaluate service extension requests (SERs) in accordance with the City's SER policy rather than the 1997 Consensus Group Study
    - Currently, City policy prohibits wastewater oversizing in the Drinking Water Protection Zone
5. Continue encouraging new development and redevelopment projects to voluntarily incorporate onsite water reuse and water conservation measures

# Questions?