

WILLIAMSON CREEK WASTEWATER INTERCEPTOR

6943.031 - WCI Task 15 – Public Meeting
November 13, 2017



CAS CONSULTING AND SERVICES, INC.

Civil Engineering • Program Management • Construction Management

AGENDA

1. Introductions

2. Williamson Creek Interceptor

3. Where We are Today

4. What Is Being Looked At?

5. Schedule

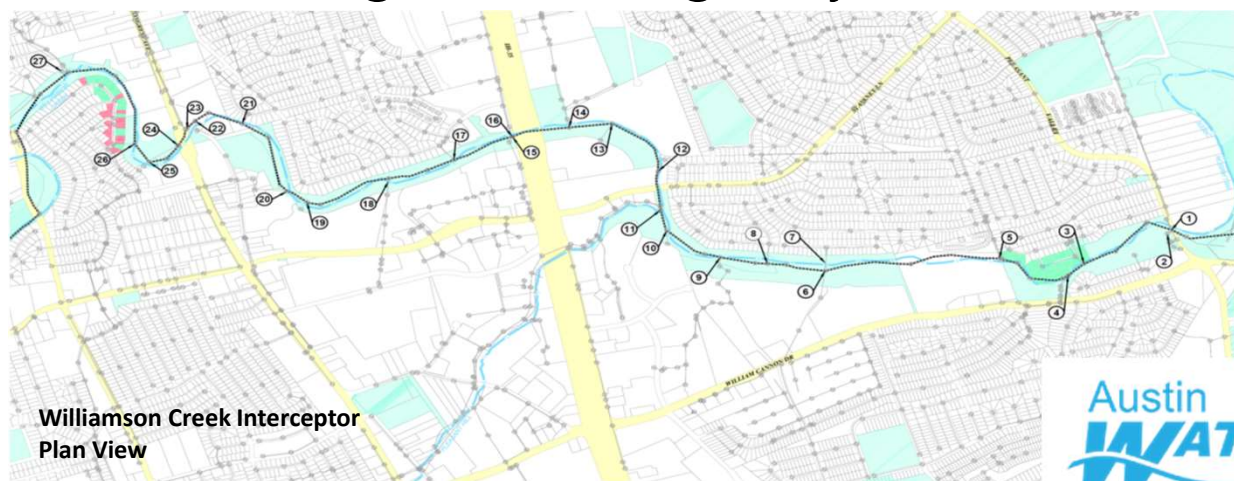
6. What to Expect

7. Questions?

WILLIAMSON CREEK INTERCEPTOR

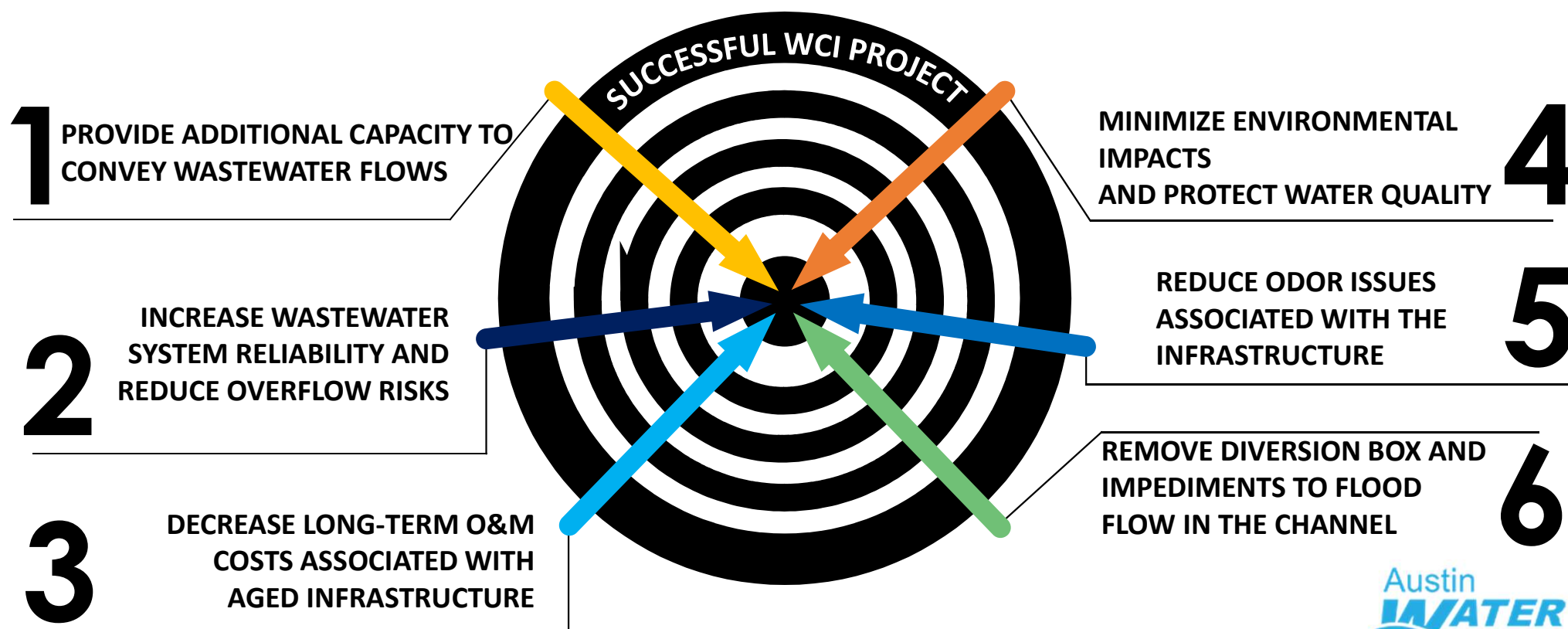
The Project

- AW modeling of the Williamson Creek Sewer Basin has determined need to increase capacity
- Portions of existing 36-inch and 42-inch pipes currently at capacity
- Current and Long-range capacity needs
- Solution - Construct 18,000 feet of large diameter gravity wastewater interceptor



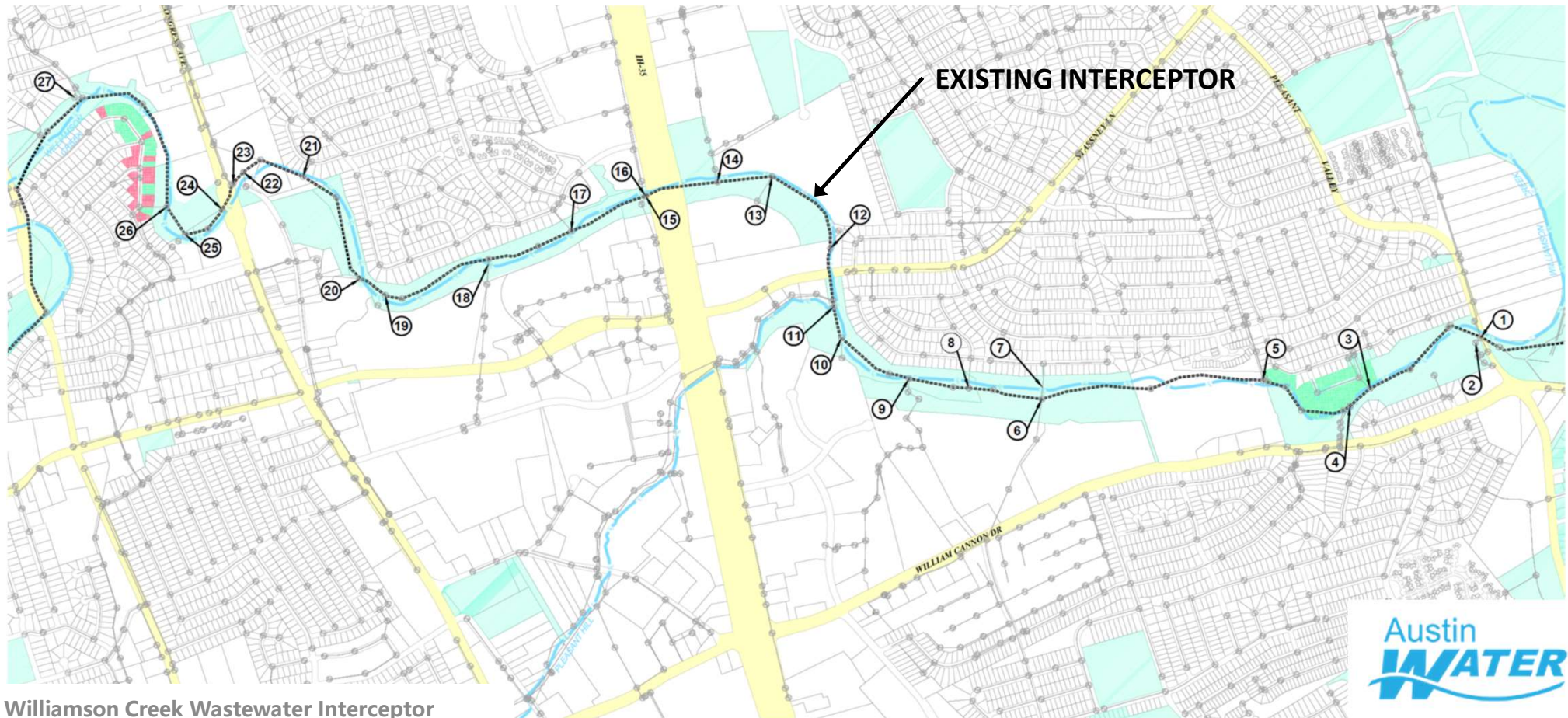
WILLIAMSON CREEK INTERCEPTOR

Goals for the Project



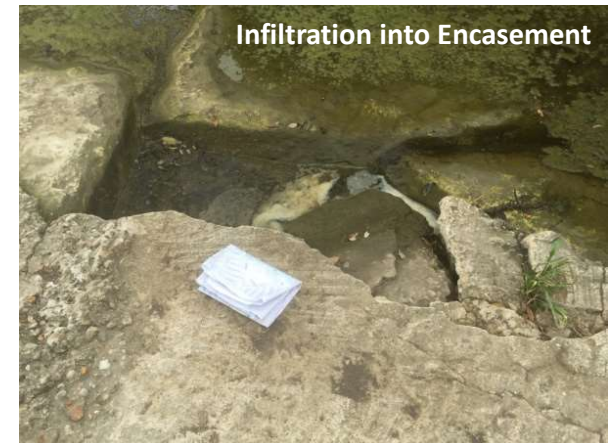
WILLIAMSON CREEK INTERCEPTOR

Overview of the Project Area



WILLIAMSON CREEK INTERCEPTOR

Reasons for the Project



WILLIAMSON CREEK INTERCEPTOR

History

- 1963: Constructed 3.7 Miles of 36-inch/42-inch Concrete Pipe
- 1981: Connected 48-inch from Lost Creek
- 1985: Connected to Onion Creek Tunnel
- 1986: Concept to Replace 36-inch Section (Revised in 1992) ... Design commenced ... Put on Hold due to Budget
- 2000: Concept to Replacement Complete Interceptor ... Put on Hold due to Budget
- Nov 2016: New Design Contract Commenced
- 2017: Rehabilitation of 36-inch and 42-inch underway

WILLIAMSON CREEK INTERCEPTOR

Key Project Factors

1 Optimizing open-cut and tunneling. 

2 Protecting the environment. 

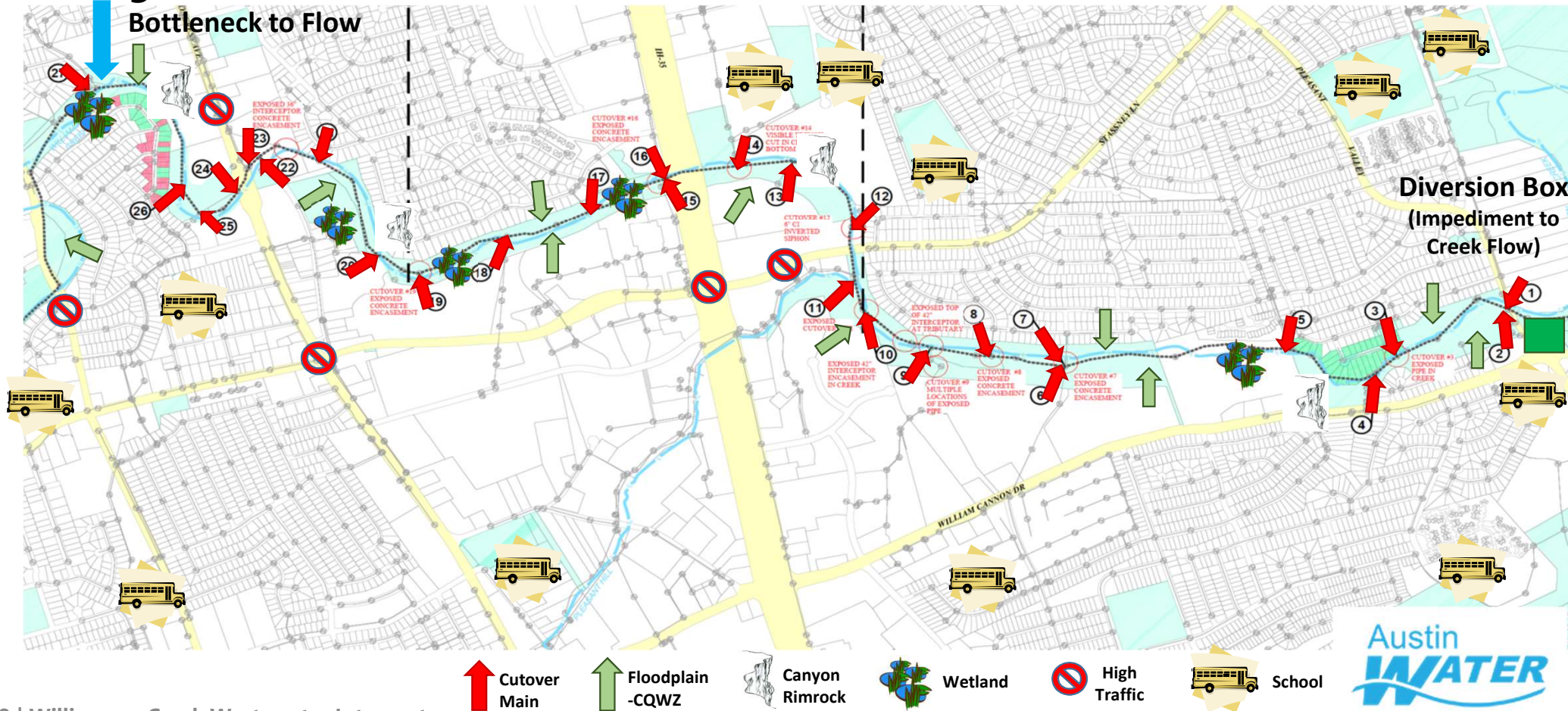
3 Managing permitting. 

4 Addressing public concerns proactively. 

5 Incorporating sustainable ideas. 

WHERE WE ARE TODAY

Challenges



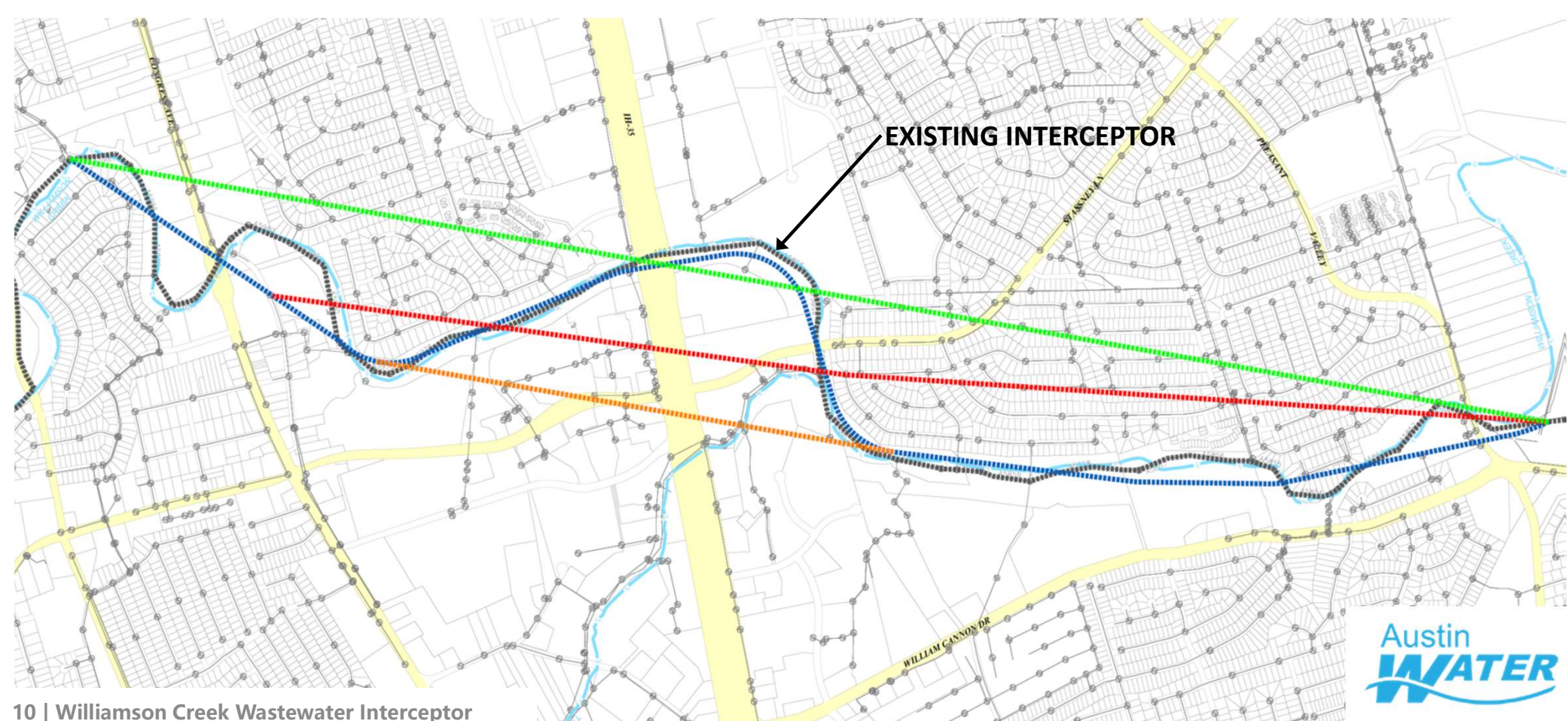
WHERE WE ARE TODAY

Process

- Establish Interceptor Route Options
 - Incorporate Old Work ... Update to Present Requirements and Needs
 - Bring in New Options ... Incorporate Changes to Project Area, New Rules/Requirements
- Establish Stakeholder Interests
 - Community: Maintain Service, Noise, Dust, Traffic, Access, Protect Creek
 - Environmental: Minimize Impacts (trees, creek, wetlands)
 - Austin Water: Maintain Service, O&M, Meet Future Needs, Budget
- Review Route Options Against All Stakeholder Interests
- *Select Route that Provides Best Solution*

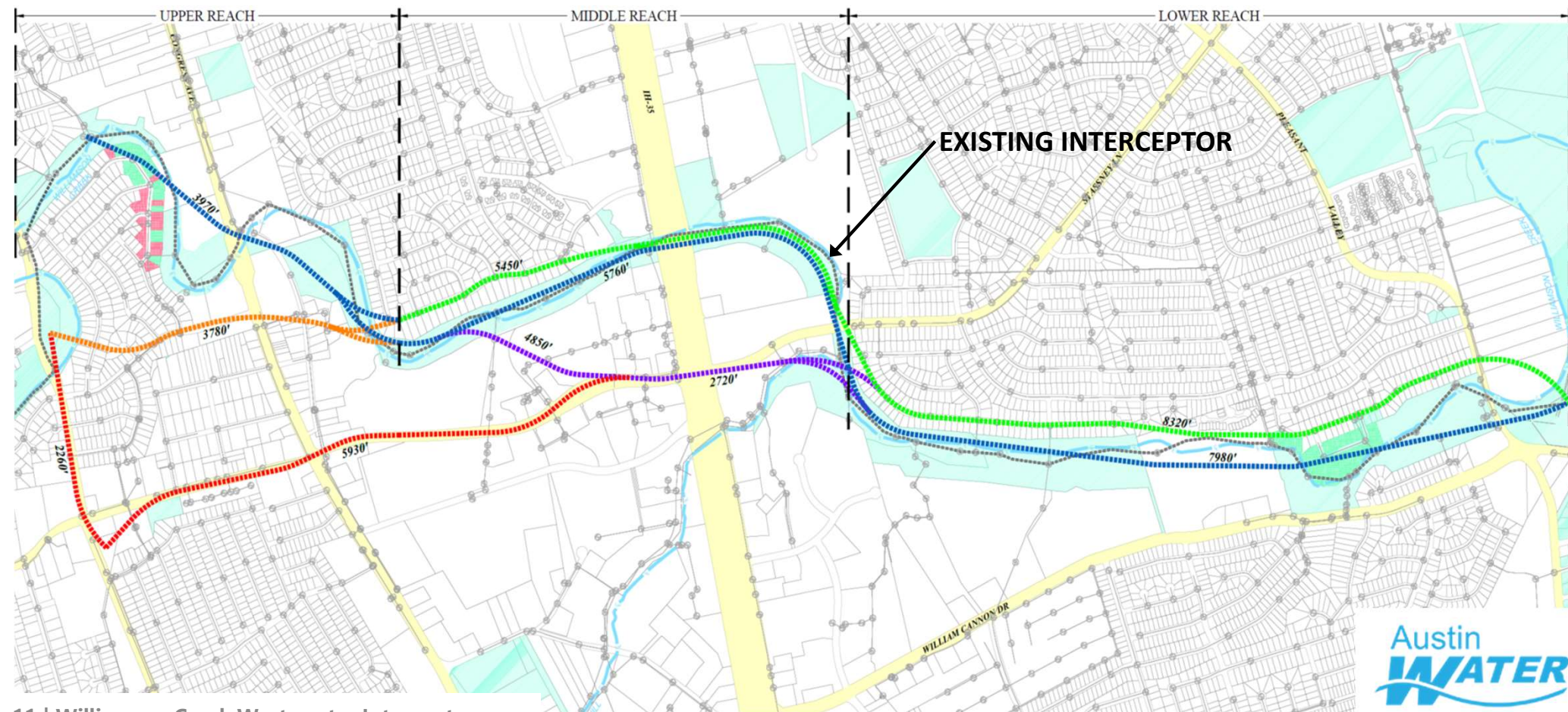
WHAT IS BEING LOOKED AT?

Prior Ideas from Work in 2000



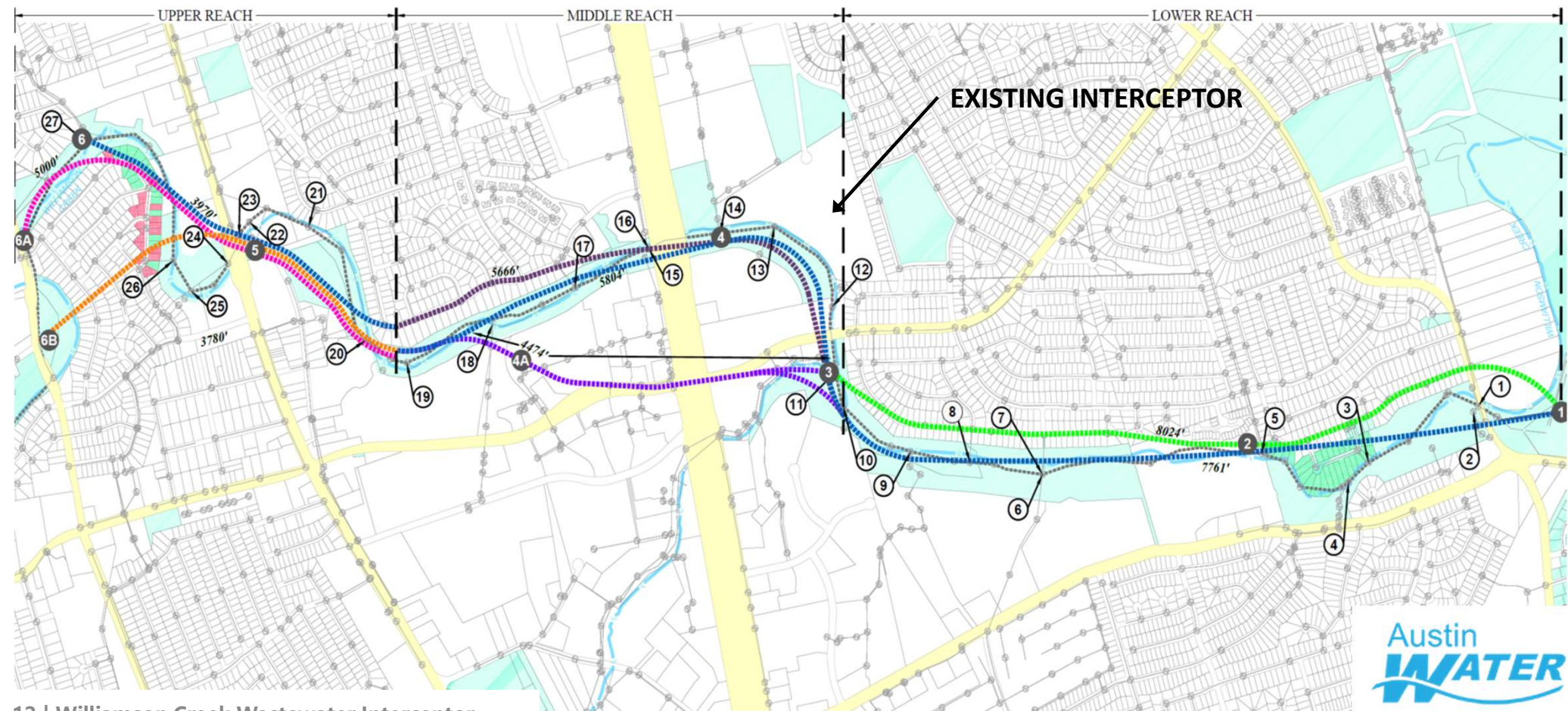
WHAT IS BEING LOOKED AT?

New Ideas



WHAT IS BEING LOOKED AT?

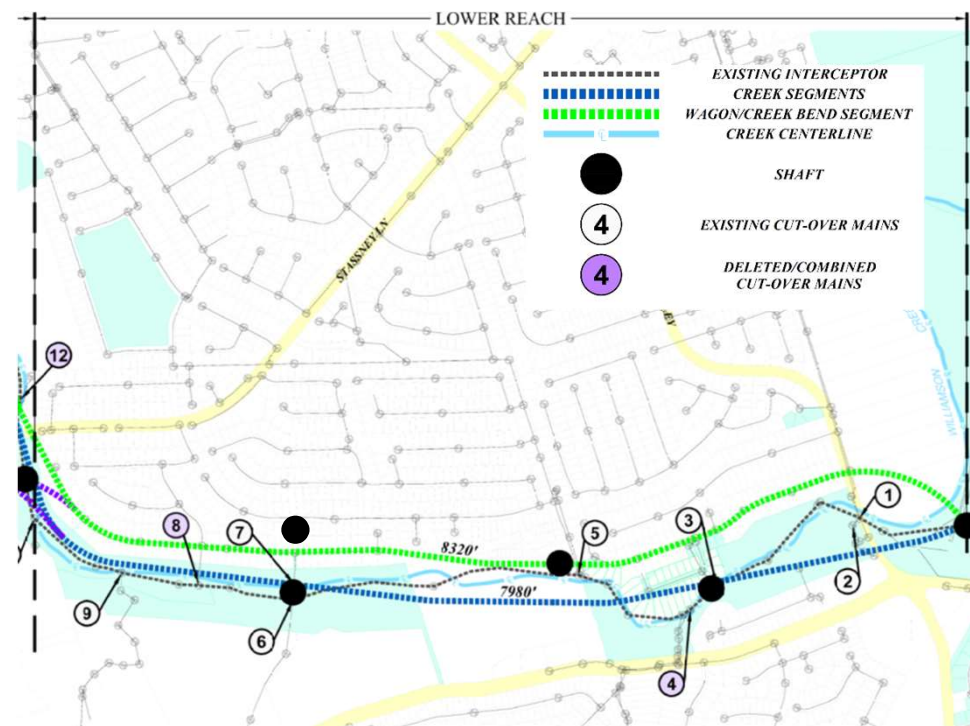
Narrowed Routes for Detailed Analysis



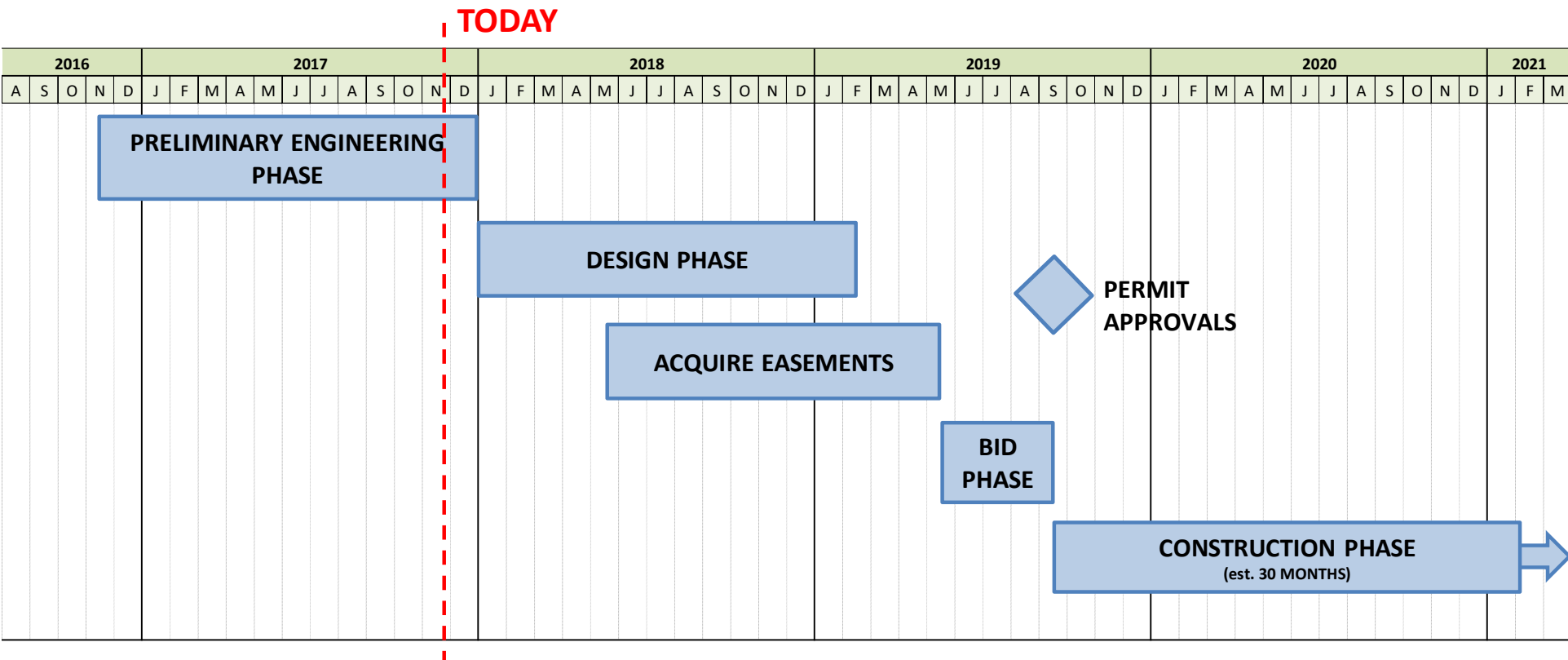
WHAT IS BEING LOOKED AT?

Detailed Analysis (example)

Screening Criterion	Creek Segment	Wagon/Creek Bend Segment
Length	7,980 feet	8,320 feet
Number/Type of Shafts	1 - Launch Shaft 2 - Combination Shafts	1 - Launch Shaft 2 - Combination Shafts
Cost	\$21,700,000	\$22,775,000
Easements Required	• Private: 1 • City of Austin: 5	• Private: 10 • City of Austin: 3
Permitting	• Shafts in DE/floodplain • Access and construction in CWQZ/EHZ • Permanent access in DE/floodplain	• Most work in/under ROW • ROWMAN for excavation in ROW • Difficult ROWMAN for shaft locations
Proximity to Cut-over Mains	• Best access to mains south of creek • Vertical drop access to all CO mains • Closest access to 24-inch at CO6 – Requires vortex insert	• Poor access to CO mains south of creek • Vertical drop access to CO 3,5,7,8 access to all mains • Difficult deep extension of CO4,6,9 • CO 1, 2 “manageable”
Flexibility to Implement Final Future Solution	• More direct access for CO connects • Min open cut in DE/CWQZ/EHZ	• Difficult to connect CO4,6,9 • Max open cut in DE/CWQZ/EHZ • Deep connections in ROW
O&M Considerations	• Need to construct perm access in DE/floodplain • Combine w/PARD improvements?	• Easy access to shafts • Difficult/costly shaft placement • Vertical drop still in DE/floodplain
Inconvenience to Public	• All tunnel hauling/delivery out East William Cannon – Little impact	• All tunnel hauling/delivery out East William Cannon – Little impact • Shaft locations limited to ROW, Deep, Extended street closure(s) • Open cut in ROW for combining CO7 and 8



SCHEDULE



NEXT STEPS

Design Phase

- Next 12 Months
- Field visits and survey
- Contact Letter from City Regarding Access to Collect Information
- Additional Public Meetings
- AW Crews in Streets/Manhole Inspections

Construction Phase

- More Contact from City Regarding Project Status
- Additional Public Meetings
- Tunneling for Main Interceptor – Open Trenching or Drilling for Connections
- Environmental Protections (E&S control, tree protection, etc...)
- Possible Temporary Neighborhood Impacts



NEXT STEPS

1

- **Record Input from Tonight's Meeting**

2

- **Include Tonight's Input in Overall Evaluation Process**

3

- **Finalize Evaluation**

4

- **Make Final Route Recommendation to City**

5

- **Commence Design**

QUESTIONS OR COMMENTS?

Eric.Bailey@austintexas.gov
(512) 974-7713

<http://www.austintexas.gov/departments/williamson-creek-wastewater-interceptor>

