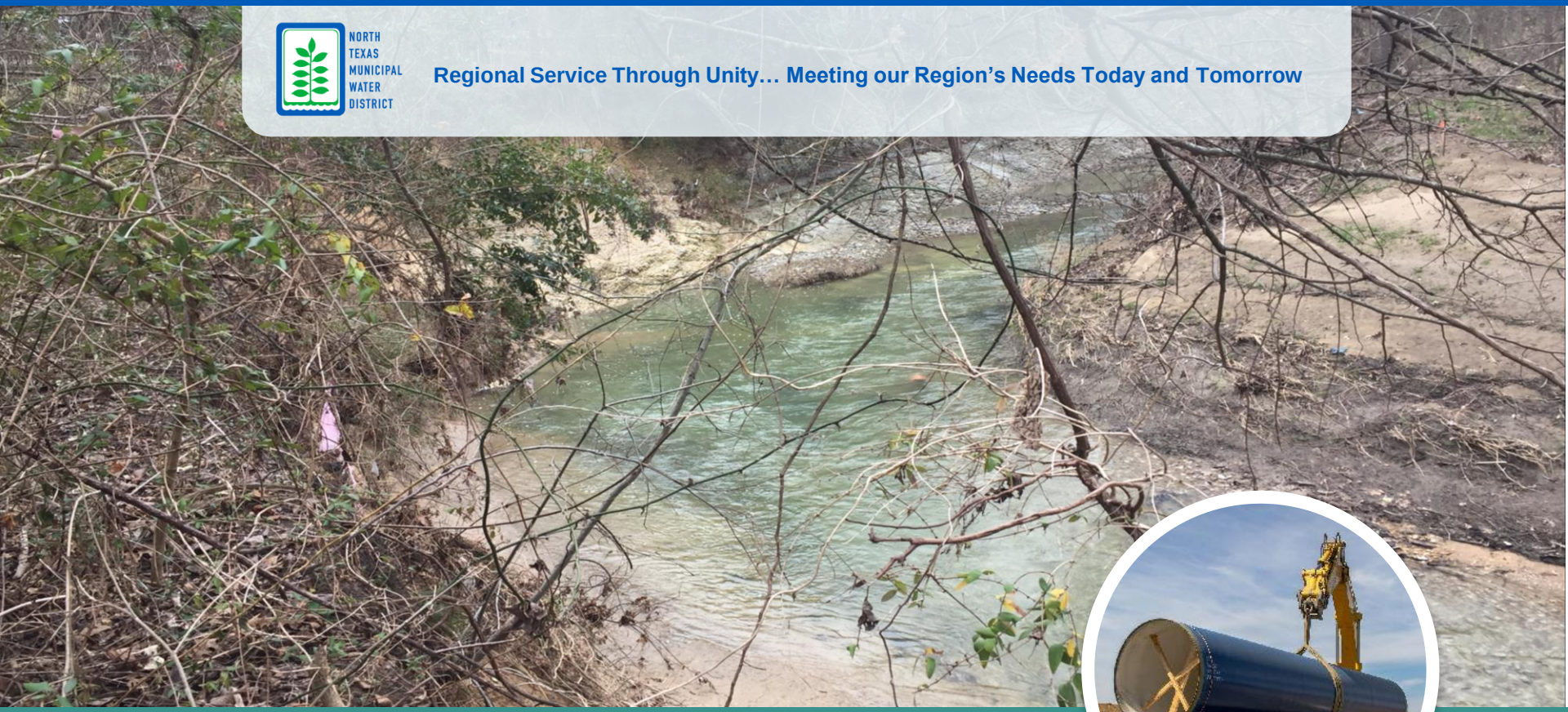
NORTH TEXAS MUNICIPAL WATER DISTRICT

Regional Service Through Unity… Meeting our Region's Needs Today and Tomorrow





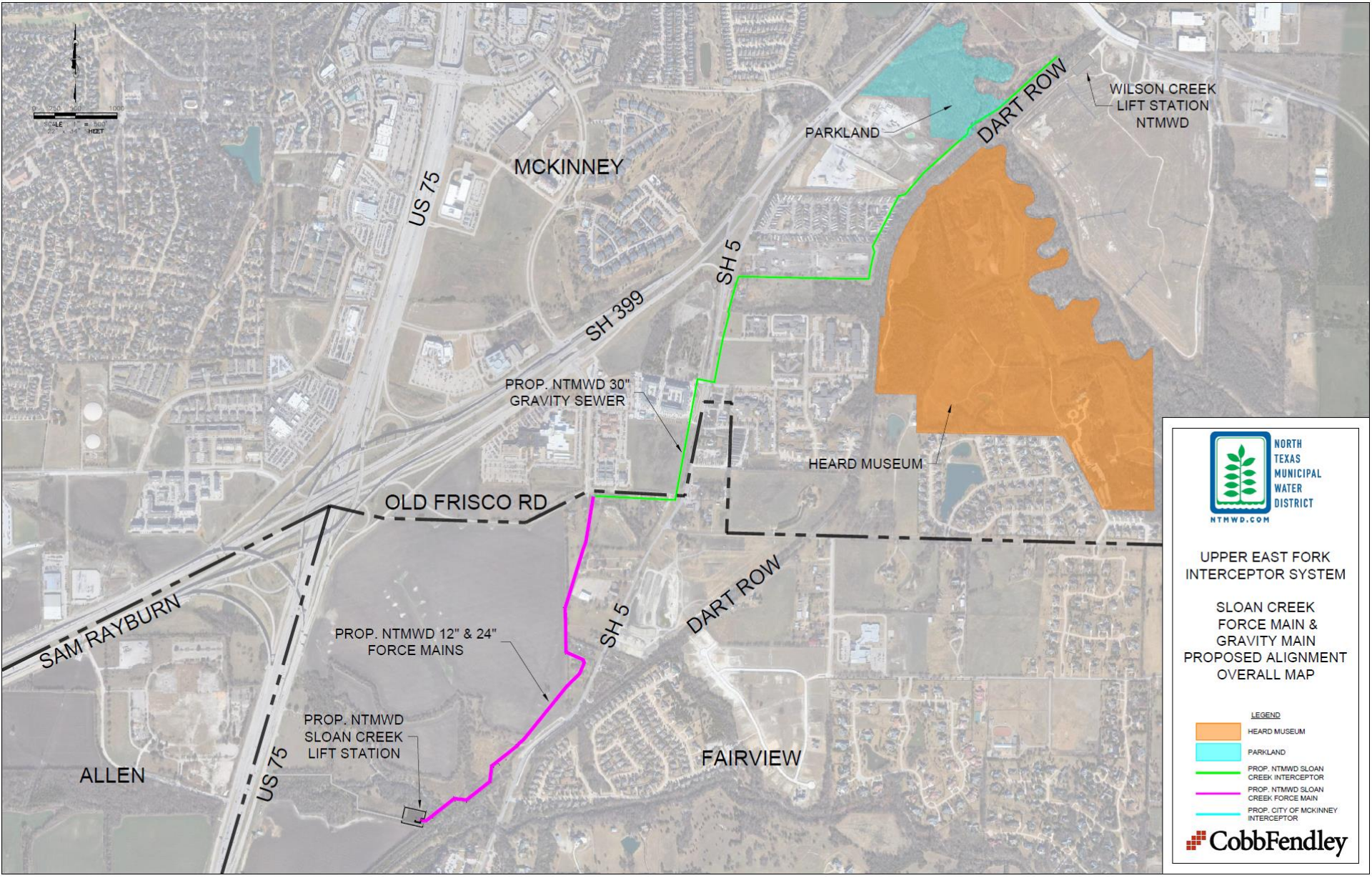
# SLOAN CREEK FORCE MAIN

## April, 2022

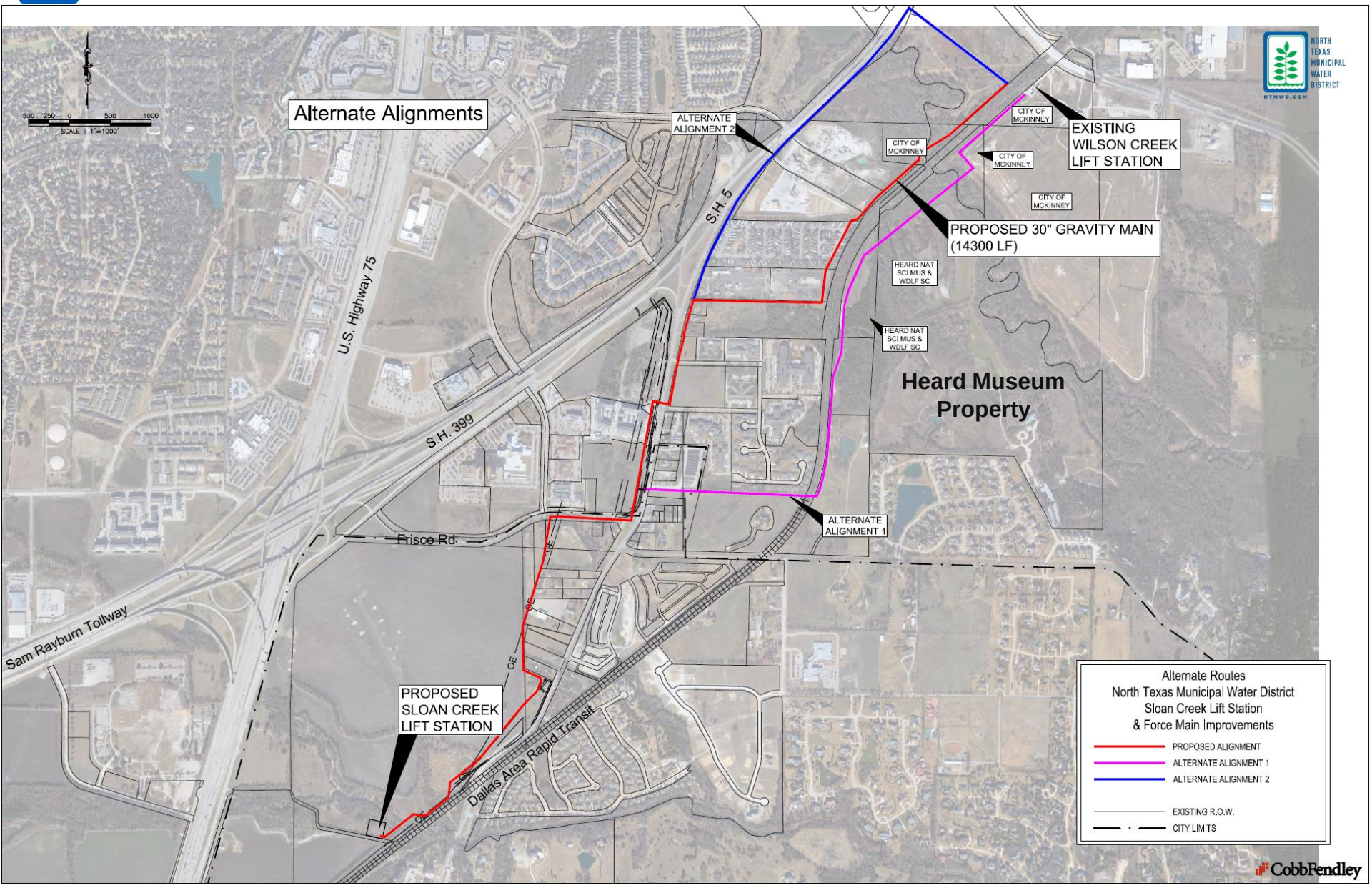
## McKinney City Council

McKINNEY TEXAS
Unique by nature.

# PROJECT LOCATION

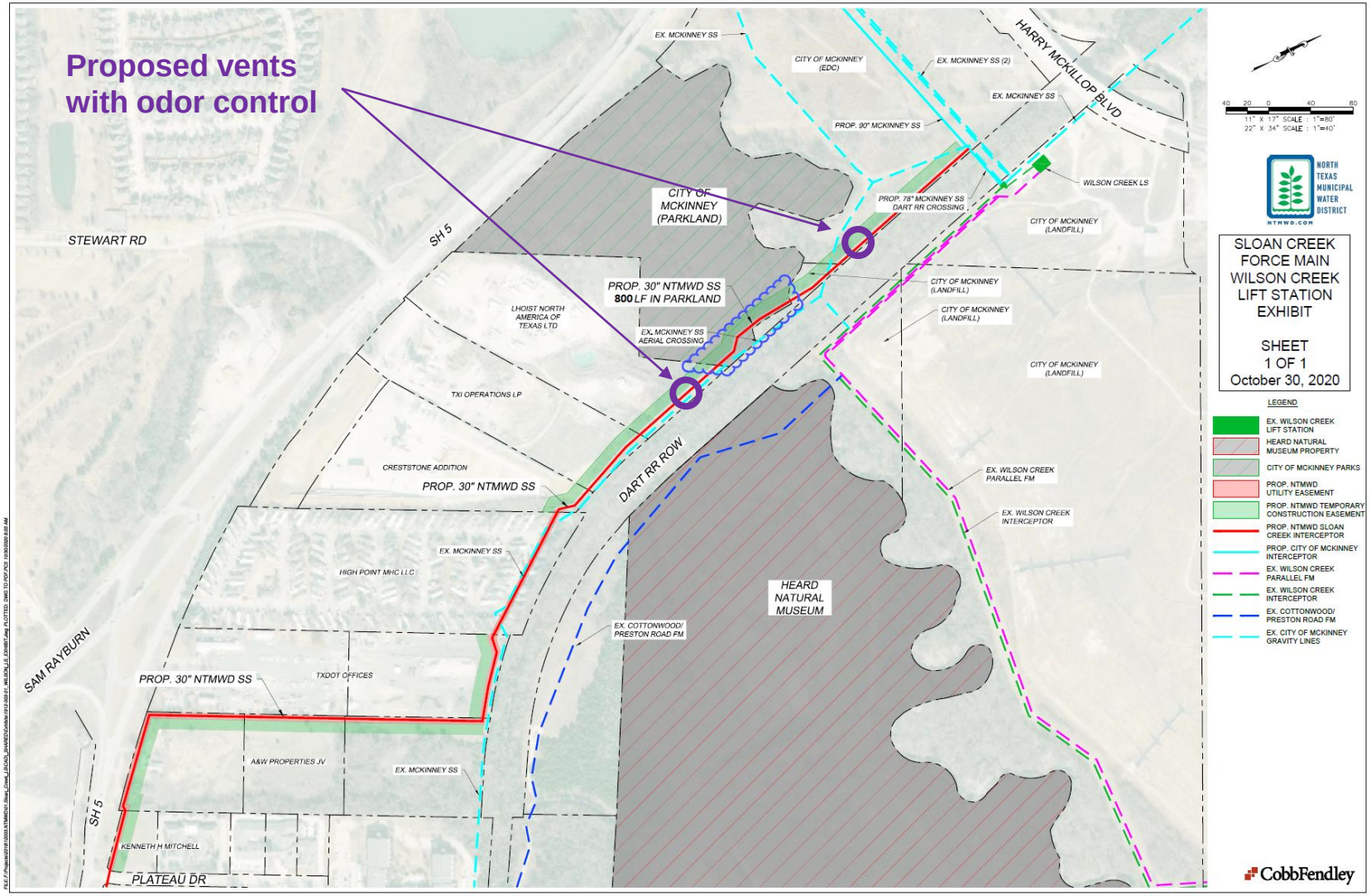


# ALTERNATE FORCEMAIN ALIGNMENTS HAVE DRAWBACKS



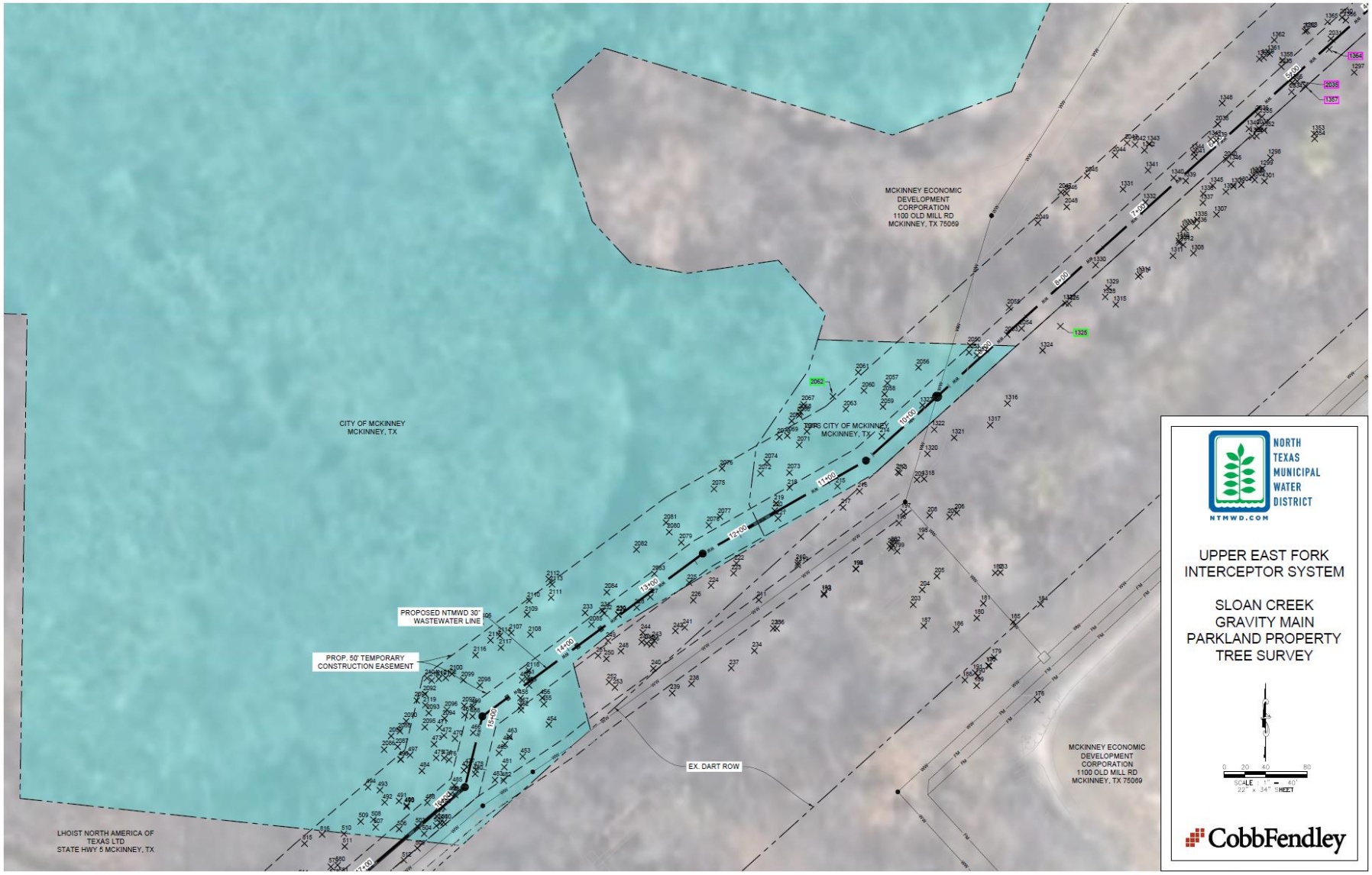
# PREFERRED ALIGNMENT THRU MCKINNEY

- **There are NO Above Ground Appurtenances Within Parkland**
  - Manholes will be flush with the ground within the parkland
  - Vents are positioned outside of parkland



# ENVIRONMENTAL IMPACT

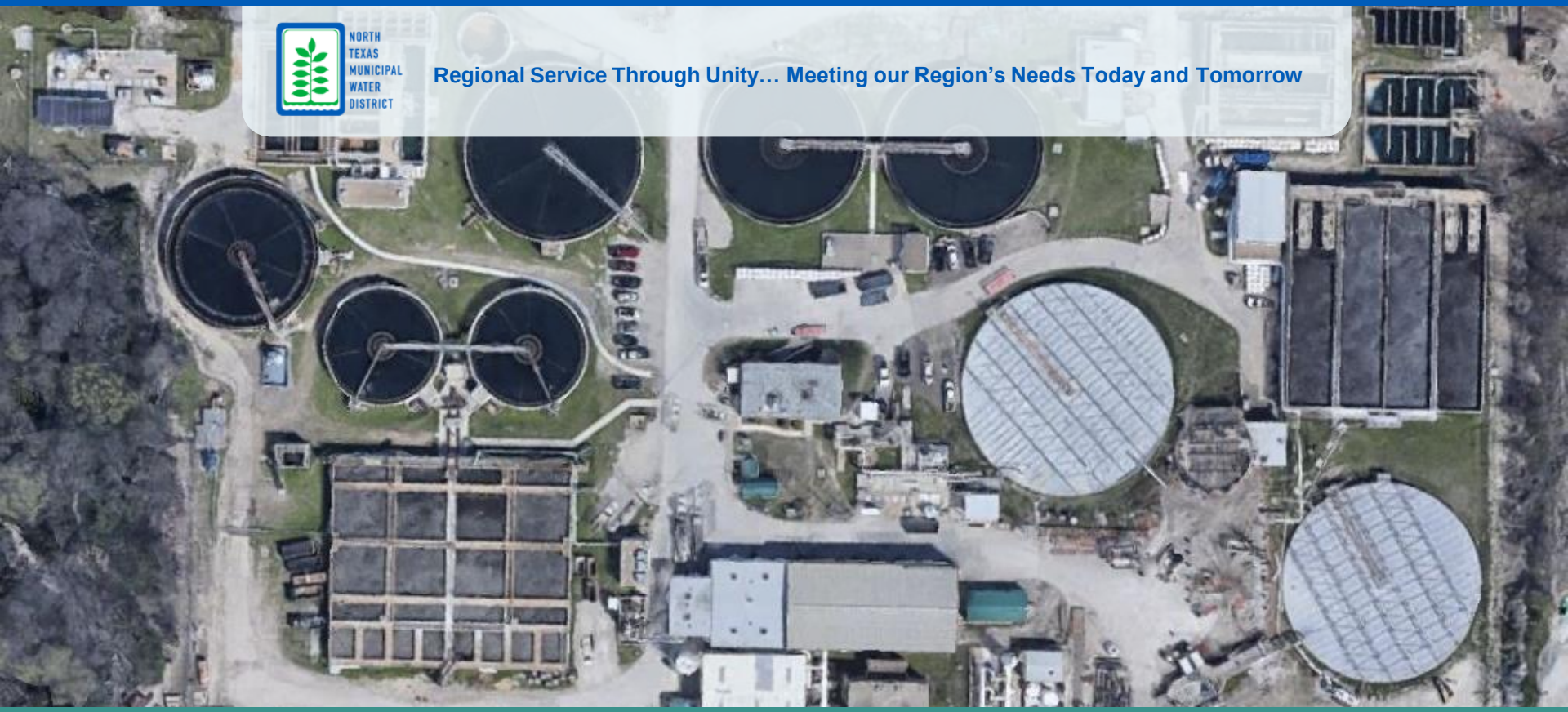
## Any impact to trees will be managed in accordance with City of McKinney Tree Preservation Ordinance



# CLOSING THOUGHTS

- **The new regional Sloan Creek Lift Station and Sloan Creek Force Main/Gravity Sewer will retain residual capacity in the Cottonwood Creek Trunk Sewer**
  - McKinney can utilize the Cottonwood Creek Trunk Sewer for a longer period of time
  - Gravity line could serve as a potential point of entry to the UEFIS for McKinney

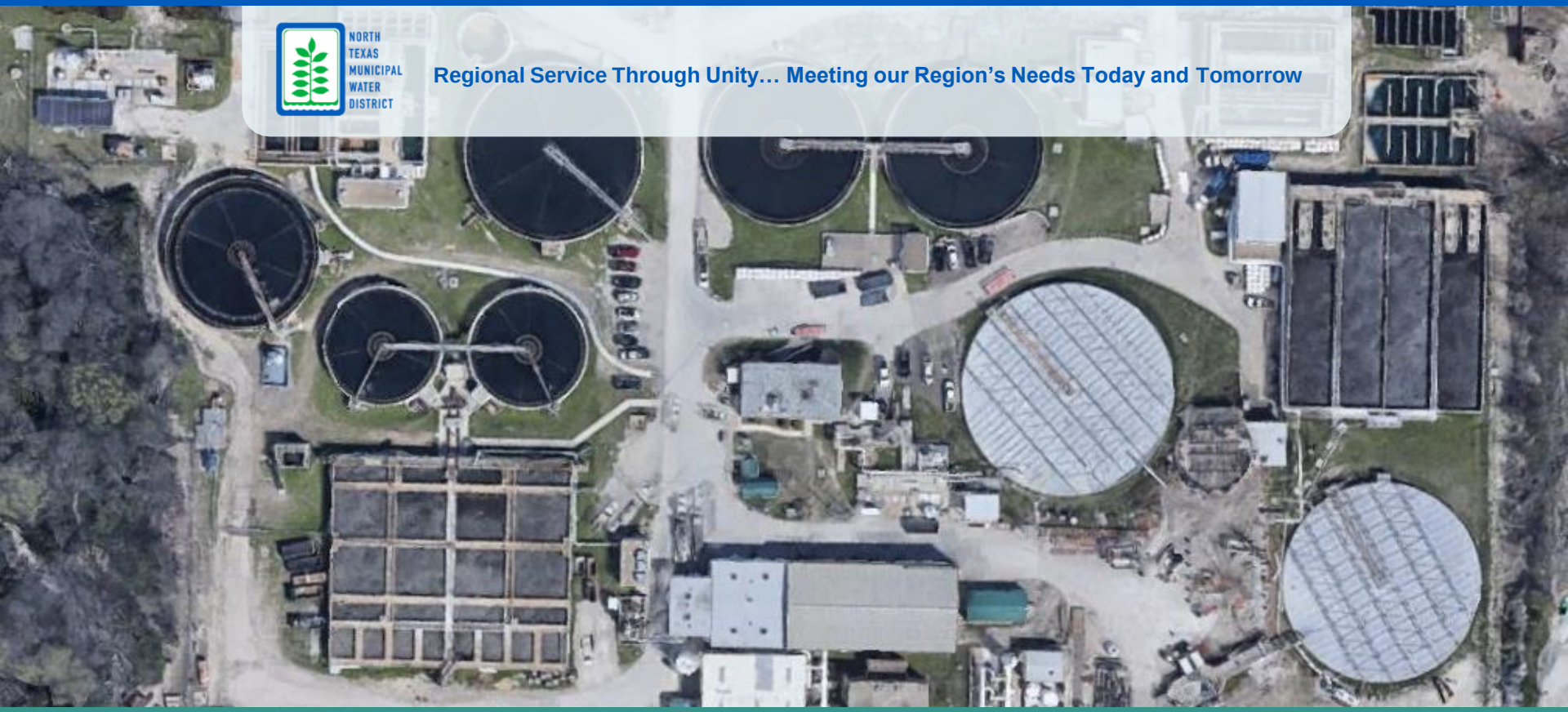
- **Proposed alignment has smallest easement footprint/fewest impacts**
  - 800 linear feet impact on designated parkland versus **1400** linear feet
  - Avoids impact to sensitive forested wetlands habitat
  - Required appurtenances of sewer line will not interfere with use or prevent enjoyment of parkland
  - Least cost for UEFIS members



# SLOAN CREEK FORCE MAIN AND CITY OF MCKINNEY

## QUESTIONS?

NORTH TEXAS MUNICIPAL WATER DISTRICT



# SLOAN CREEK FORCE MAIN AND CITY OF MCKINNEY

## QUESTIONS?

NORTH TEXAS MUNICIPAL WATER DISTRICT

# ADVANTAGES & DISADVANTAGES OF EACH ALIGNMENT OPTION

| OPTION | GENERAL DESCRIPTION (*Starting at Old Frisco Rd*) | ADVANTAGES | DISADVANTAGES |
|---|---|---|---|
| **Proposed Alignment (Feasible, Optimal, and Recommended Alignment)** | Route parallel to east side of SH5, parallel to west side of DART ROW, and to the NTWMD Wilson Creek Lift Station | • Connects to NTMWD MPTS upstream of DART ROW<br>• Avoids future SH5 widening and eminent domain<br>• Avoids sensitive forested wetlands | • Less impactful to properties<br>• Traverses through >0.6 acres of permanent easement and >0.9 acres of temporary easement for a total of >1.5 acres of disturbance to City designated parkland |
| **Alternative Alignment 1** | Route across and parallel to DART ROW on east side to the NTMWD Wilson Creek Lift Station | • Avoids City-designated parkland<br>• Avoids future SH5 widening and eminent domain | • Requires DART ROW crossing<br>• Traverses and disturbs highly sensitive forested wetlands environment<br>• Public impacts with the construction through Heard Museum property |
| **Alternative Alignment 2** | Route parallel to east side of SH5, across DART ROW, and to the NTMWD Wilson Creek Lift Station | • Avoids sensitive forested wetlands | • Impacted by future SH5 widening and eminent domain<br>• Constraining and difficult topography likely requiring extensive and expensive trenchless construction methods<br>• Option requires a larger and more extensive easement along the frontage of City property |

# SLOAN CREEK FORCE MAIN (SCFM) AND CITY OF MCKINNEY

## Project Background and Overview

- NTMWD has identified the need for an additional force main and gravity sewer to serve continued development in the area around US75 and Sam Rayburn Tollway

- The existing Cottonwood Creek Trunk Sewer (CCTS) does not have residual capacity to serve the projected growth.

- The SCFM will divert flows away from CCTS leaving the remaining capacity for additional development that could benefit McKinney

- The gravity portion of the line could serve as an additional entry point for McKinney into the Upper East Fork Interceptor System (UEFIS) of which McKinney is a member

# BENEFITS TO MCKINNEY FROM THE SCFM PROJECT

- **The Sloan Creek Force Main diverts future flows away from the Cottonwood Creek Trunk Sewer**
  - With the Sloan Creek Force Main providing service to meet Allen and Fairview's growth, new flows are diverted away from the Cottonwood Creek Trunk Sewer (CCTS).
  - Remaining capacity in the CCTS is retained for the benefit of McKinney

- **Potential Point-of-Entry for McKinney's future growth**
  - The project is being funded through the Upper East Fork Interceptor System (UEFIS), of which McKinney is a member.
  - The gravity portion of the SCFM can serve as a potential point-of-entry for McKinney into the UEFIS