

**OPPORTUNITIES TO EXPAND THE
CORRIDOR DEVELOPMENT CERTIFICATE PROCESS
INTO THE
NORTH CENTRAL TEXAS TSI PROJECT AREA**

OCTOBER 2024



**US Army Corps
of Engineers**
Fort Worth District

PURPOSE/OBJECTIVE

- **NCTCOG and the Texas Water Development Board (TWDB) signed a grant contract agreement in November 2021 and subsequent agreements with other organizations for the development of a Regional Planning Study of Wise County and portions of Dallas, Denton, Ellis, Hood, Johnson, Parker, and Tarrant counties**
- **NCTCOG is lead agency of this effort, known as the integration of Transportation and Stormwater Infrastructure (TSI)**
- **Project team: NCTCOG, U.S. Army Corps of Engineers – Fort Worth District (USACE), Tarrant Regional Water District (TRWD), Texas A&M AgriLife, the University of Texas at Arlington (UTA), and others**
- **Per the Agreement, “development of model regulatory tools cities and counties could integrate into their existing development and planning processes.”**
- **Managing Land Task Deliverable item: “Evaluate opportunities to expand the Corridor Development Certificate process into the Project area”**

CURRENT CDC PROCESS/MODEL EXTENTS

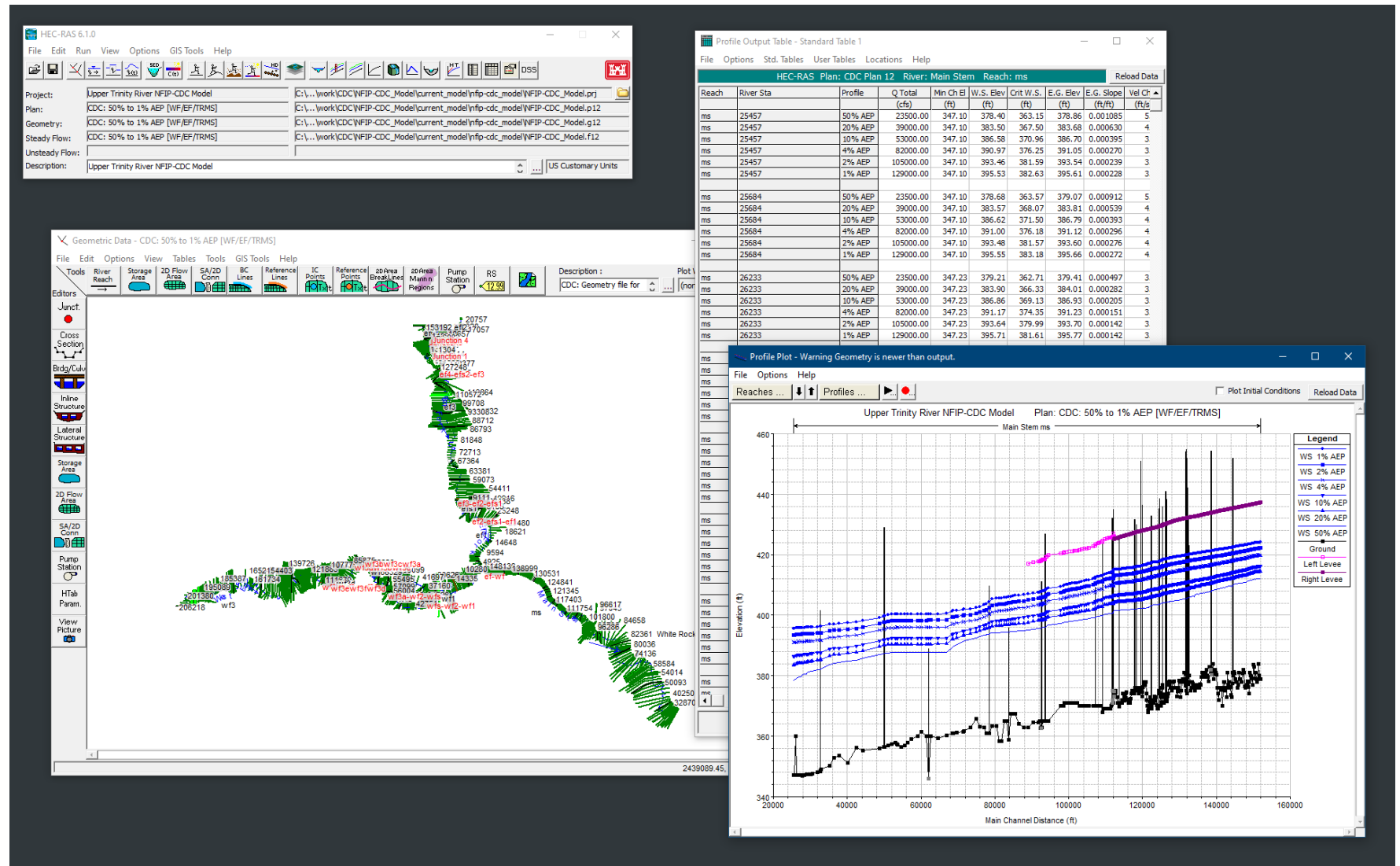
Extents as developed since the beginning of the CDC Process in the early 1990s

- Clear Fork ~12.4 miles
- West Fork ~58 miles
- Elm Fork ~ 29 miles
- Trinity River main stem ~23.5 miles
- Total ~123 miles



CURRENT CDC PROCESS/MODEL EXTENTS

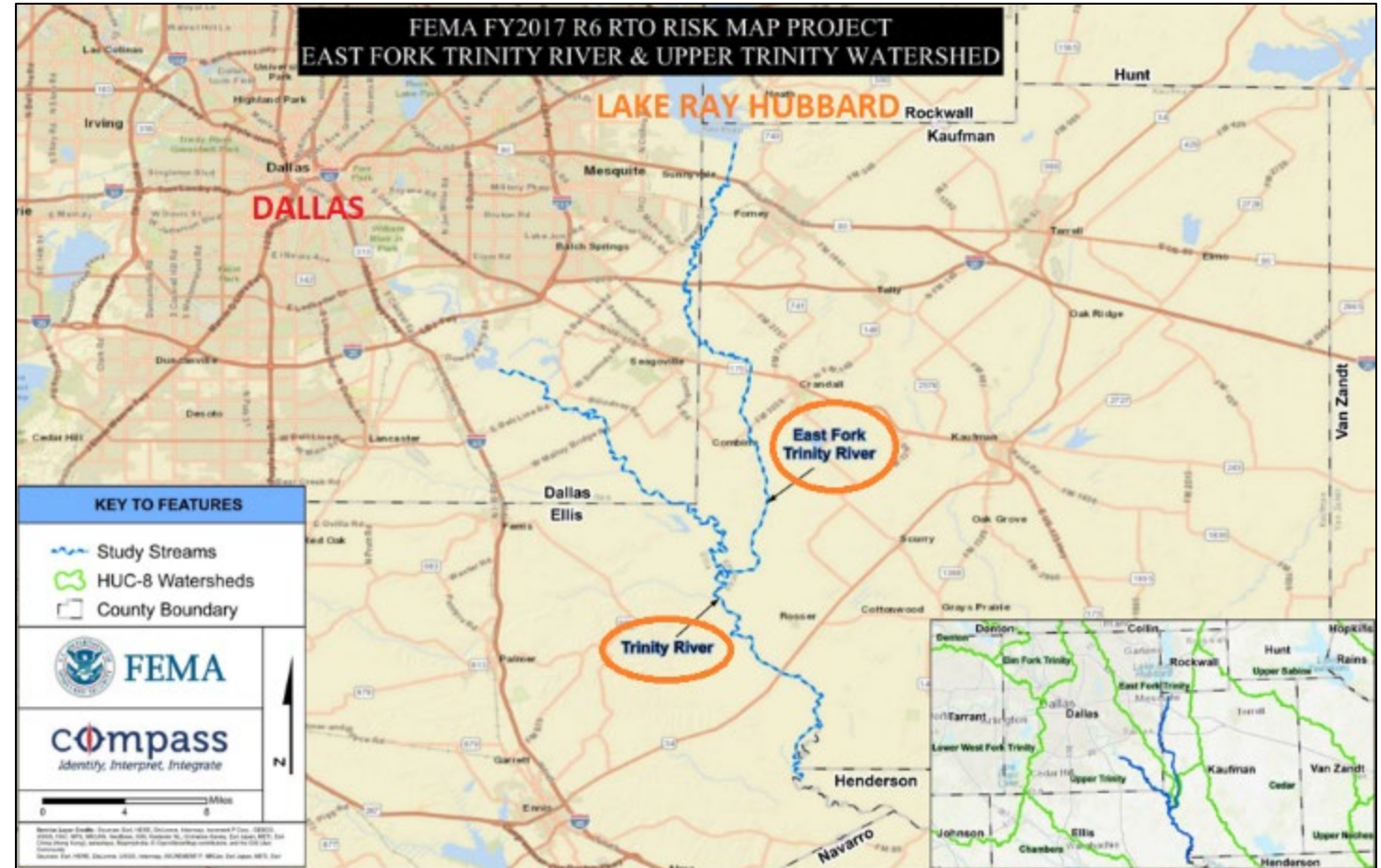
- The CDC Model uses watershed flood event flows and floodplain information to compute water surface elevations



EXPANSION OF CDC PROGRAM/MODEL

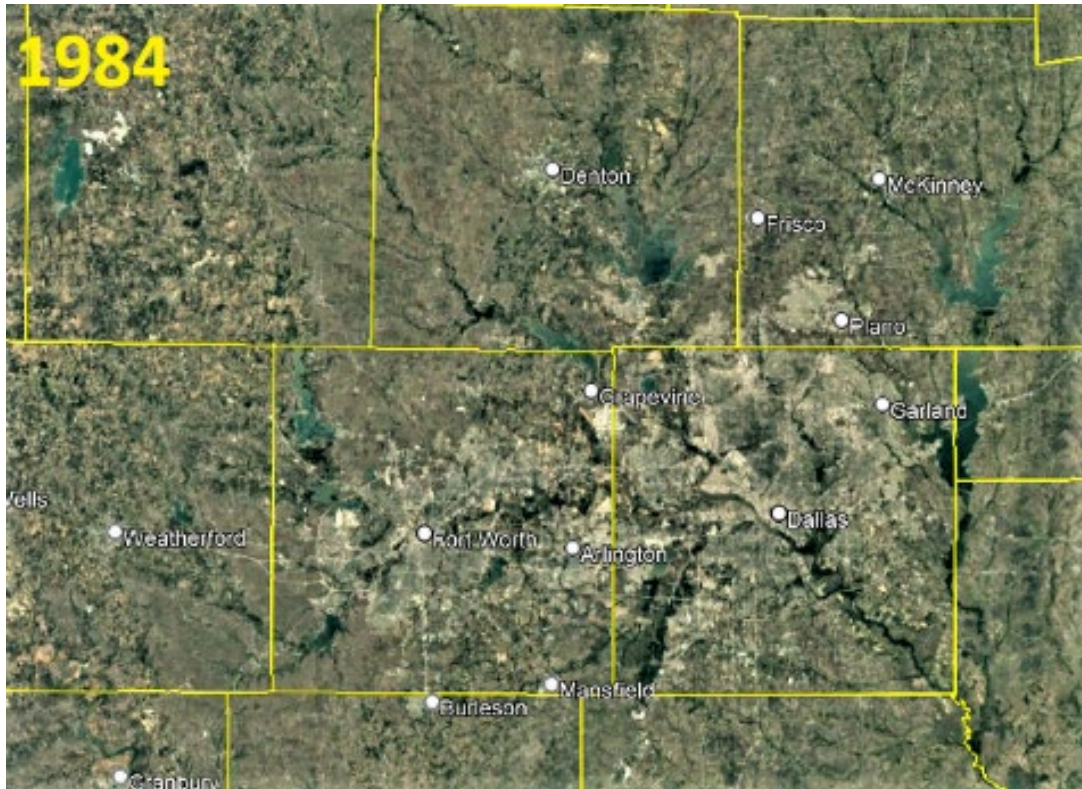
Expansion to the east (Kaufman County) and south (Henderson County). Work is ongoing – final adoption anticipated for 2025.

- East Fork ~29 miles
- Trinity River main stem ~30 miles
- Total ~59 miles



WHY EXPANSION?

- **Development growth to the east and west (and north and south)**
- **Increased in impervious cover creating increased runoff**
- **Local and regional challenges (transportation, water quality, open space)**



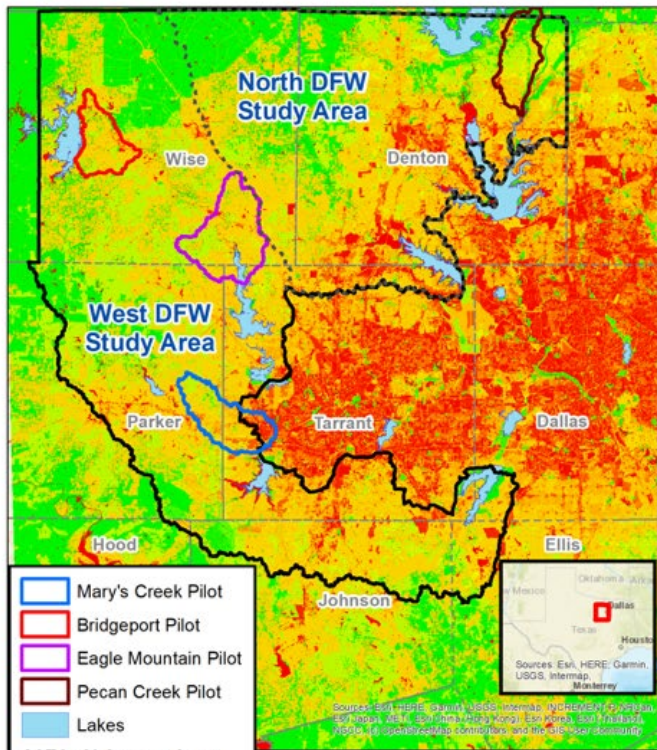
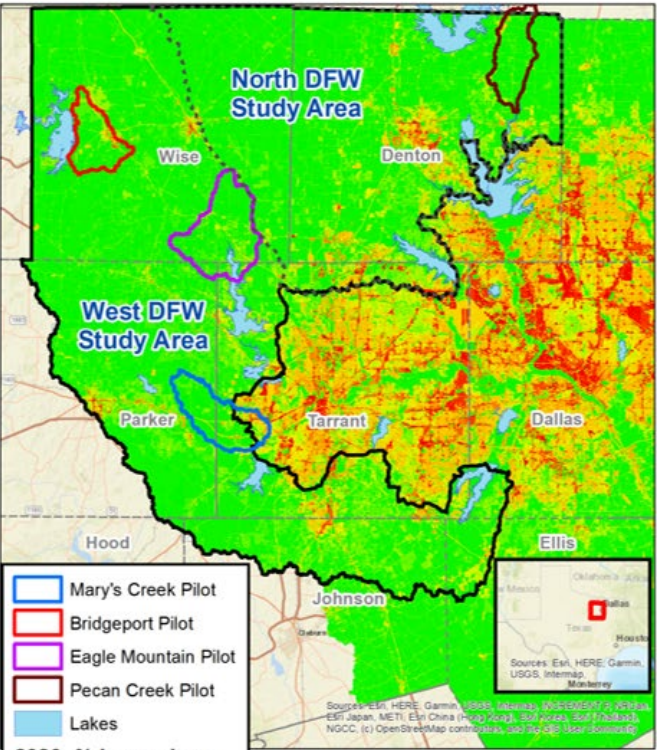
WHY EXPANSION?

Typical Urbanization Adds Impervious Surfaces

2020 (6.4% Impervious)



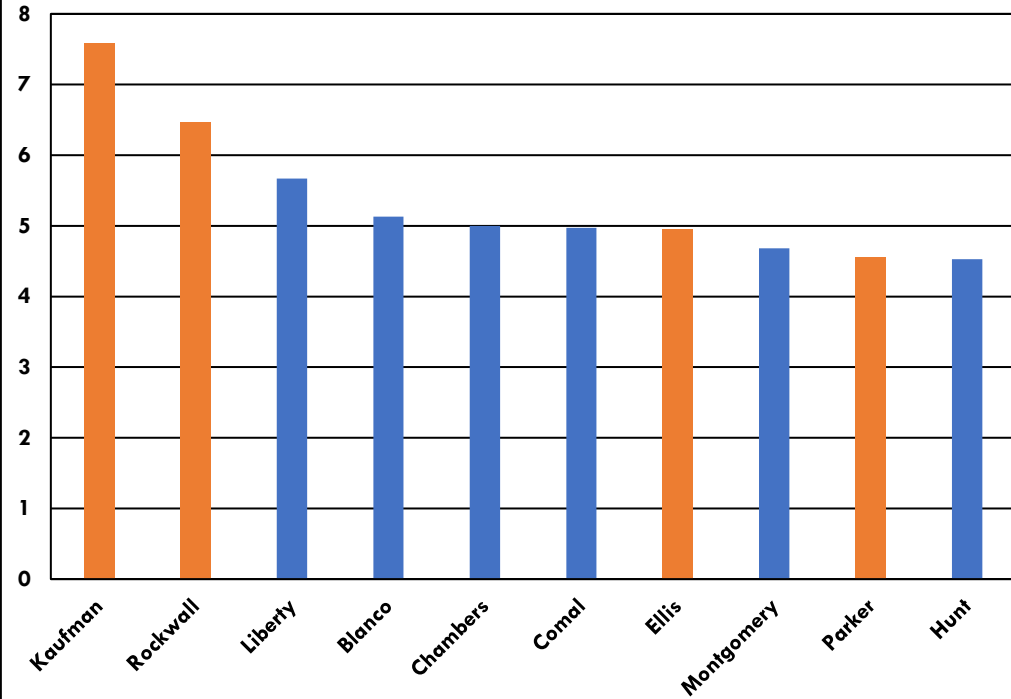
2070 (35.2% Impervious)



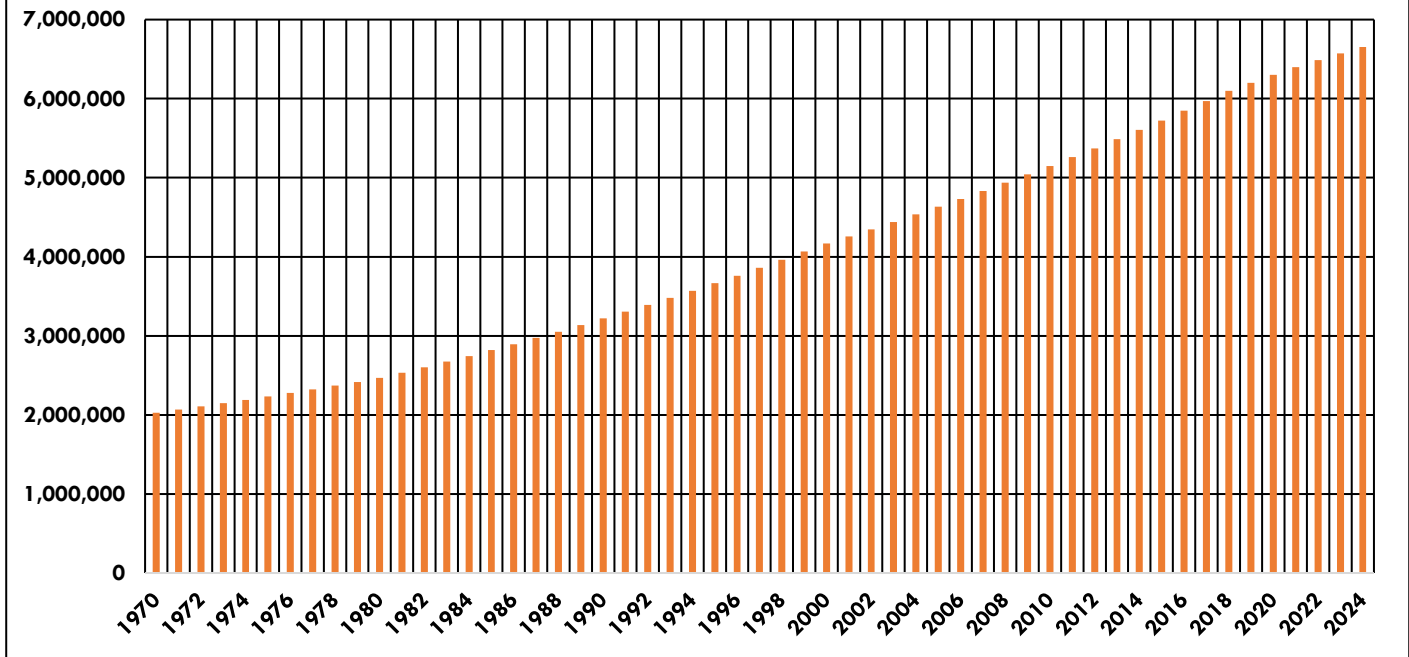
WHY EXPANSION?

Population growth

Texas Fastest Growing Counties % Change in Population



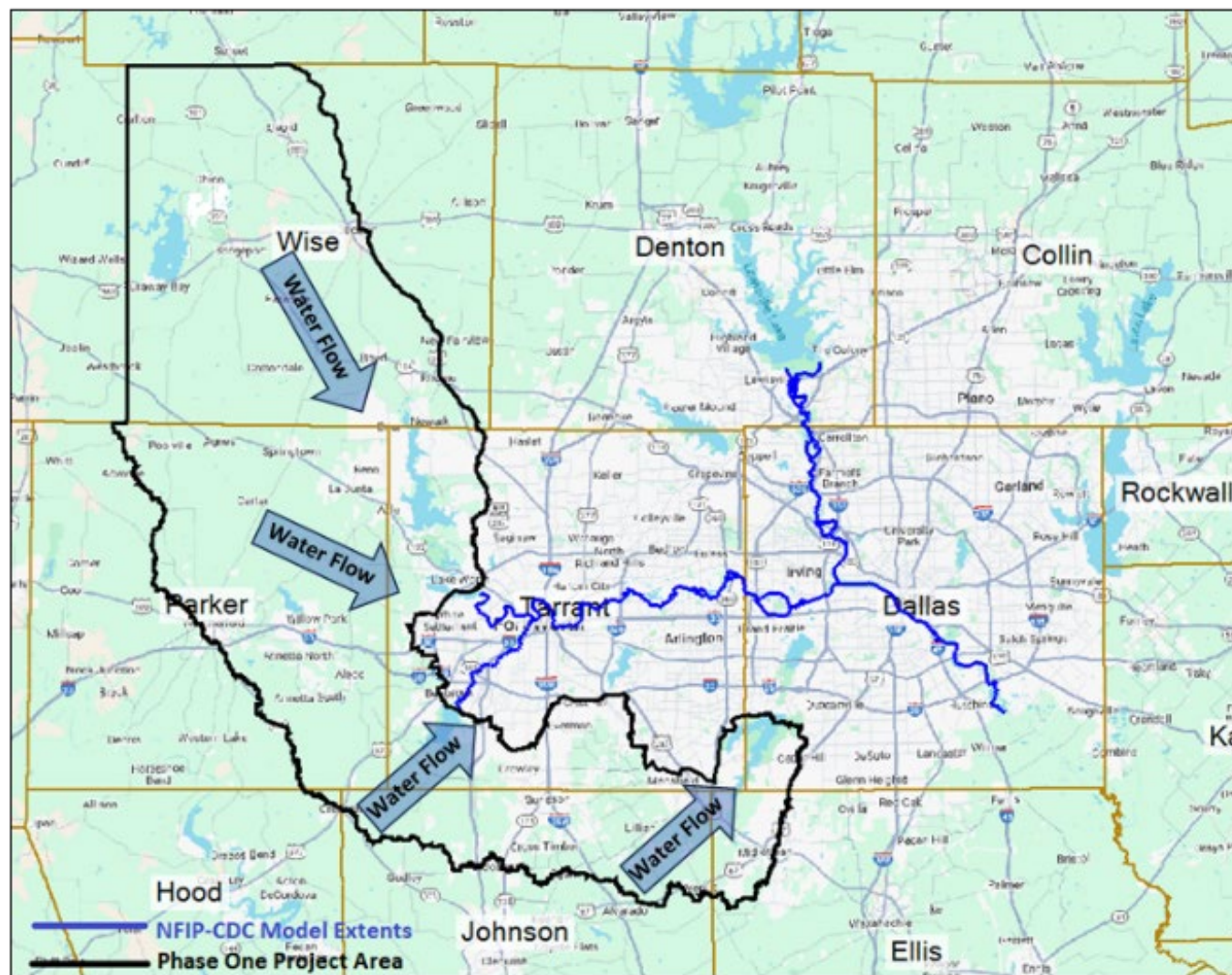
Dallas - Fort Worth Metro Area Historical Population Data 1970 - 2024



PROJECT AREA

West DFW Study Area

- Dallas County
- Ellis County
- Hood County
- Johnson County
- Parker County
- Tarrant County
- Wise County
- Mansfield, Burleson, Midlothian, Weatherford, Crowley, Decatur, Bridgeport
- ~ 1,690 square miles



OPPORTUNITIES TO EXPAND INTO THE PROJECT AREA

- **USACE developed “Evaluation of Opportunities to Expand the Corridor Development Certificate Process into the North Central Texas TSI Project Area” 2024**

- **Plan of Implementation**
 - 1. Solicit stakeholder interest by establishing a Technical Advisory Group, conducting training opportunities, preparing and issuing surveys, hosting scenario planning workshops throughout the Project Area**

 - 2. Meetings/workshops with the participation of NCTCOG staff, floodplain administrators/staff of current member communities, and USACE**

OPPORTUNITIES TO EXPAND INTO THE PROJECT AREA

- Plan of Implementation (continued)

- 3. Recommended meeting agenda

- History of the CDC program
 - Benefits of the CDC program
 - CDC administrative procedures (reviews, fees)
 - The Technical Review process
 - Comparisons with the NFIP program and policies, modeling procedures
 - How to integrate the CDC in local ordinances
 - Discuss local master development plans and future land use for each community/county
 - Hydrology and hydraulics modeling
 - How the CDC program be applied to the stakeholder area of interest
 - Display NCTCOG/CDC program online products

OPPORTUNITIES TO EXPAND INTO THE PROJECT AREA

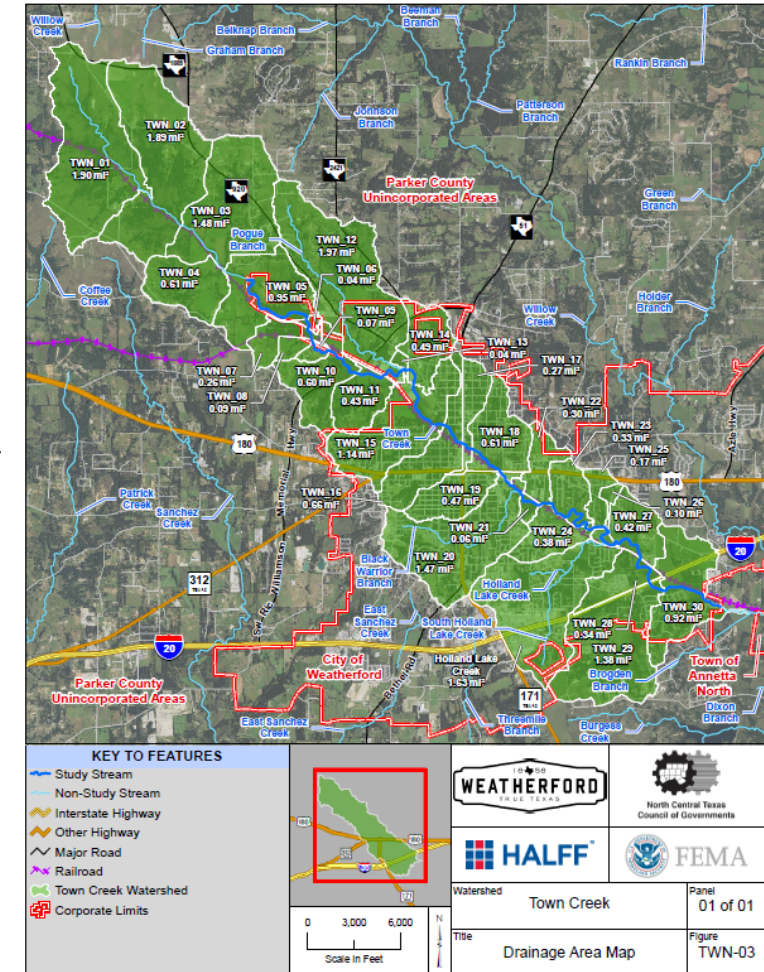
- Plan of Implementation (continued)

- 4. Perform a pilot study

- Identify a community through the previous efforts
 - Deliverable products will include hydrology and hydraulic modeling and Standard Operating Procedure to serve as a guide for implementation of future studies

EXPANSION OF THE CDC PROGRAM INTO WEATHERFORD

- City of Weatherford expressed interest in participating in a Pilot Study in May 2024
- Several meetings between Weatherford and USACE HH staff
- USACE developed a Scope/Plan of Procedure specific for Weatherford in August 2024
- Specific study tasks. Specific study tasks, including modeling, are as follows:
 1. Obtain and update the Town Creek HEC-RAS model
 2. Obtain and update the Town Creek HEC-HMS model
 3. Develop future land use HEC-HMS model
 4. Develop future flows
 5. Incorporate CDC Flows into HEC-RAS model



EXPANSION OF THE CDC PROGRAM INTO WEATHERFORD

- **Specific study tasks (continued)**
 - 6. Compare Model with FEMA model**
 - 7. Floodplain Delineations**
 - 8. Incorporate into NFIP-CDC Model**
 - 9. Documentation**

- **Deliverables**
 - 1. Town Creek HEC-RAS model incorporated into the regional NFIP-CDC Model**
 - 2. Town Creek HEC-HMS future watershed conditions model**
 - 3. Town Creek CDC 1% and 0.2% AEP flood event delineations**
 - 4. Project study report**

- **Funding/schedule: USACE will pursue additional federal funds to complete the technical portion of this pilot study given the limited budget for this TSI task - anticipated completion is 2026**

THE FUTURE

The path forward:

- **The Weatherford study to serve as a catalyst for future studies**
- **Engagement with other communities to ensure a tailored approach**
- **Document findings, recommendations, and next steps related to expanding CDC program into TSI project area**

THANK YOU