



North Central Texas
Council of Governments

Technical Advisory Group Meeting #3

October 23, 2023

Welcome and Introductions

- Thanks for attending!
- Please introduce yourself in the chat box.
- Please mute your line and unmute your line when you would like to speak.
- We will also watch the [chat](#) box for questions

Agenda

I. Introduction

II. Recap July 12th Meeting

- a. Update on current progress
- b. Review project team's timeline and schedule

III. Technical Advisory Group Action Items

- a. Education and Outreach
- b. Funding
- c. Data and Technical Topics
- d. Policy

IV. Next Steps

Progress to Date

- 2 Rounds of meetings with stakeholders in the study area
 - 2 Technical Advisory Group meetings
 - 1 Steering Committee meeting
 - 15 Communities have provided GIS and non-GIS data
 - 2 Workshops conducted
 - Green Asset Management with US EPA and City of Denton
 - NCTCOG Flooding, Stormwater and Water Quality Programs webinar
 - Beginning planning for 2 additional workshops
 - 2 Visits to observe challenges faced by small but developing cities
- Acceptance into ULI's Mini-TAP Program
- Awarded grant from FEMA to cover North Study Area and submitted scope for GLO grant



Action Items

ADDRESSING FEEDBACK FROM TECHNICAL ADVISORY GROUP

Education and Outreach

Urban Land Institute

- TSI selected for “mini” Technical Assistance Panel!
- Preliminary topics posed to panel members:
 - Overcoming barriers to nature-based solutions, green infrastructure
 - Implementing above at watershed scale
 - Promoting TSI concepts
 - Easing burden for under-resourced local governments
 - Policy recommendations for sustainable design



Education and Outreach

Urban Land Institute, cont.

- What topics would you like panel members to address re: engaging development, real estate, and insurance sectors?



Education and Outreach

Community Engagement Plan

- For clarification, community = local governments
- Seeking tips to generate greater participation than past TSI subarea meetings
 - Communications goals?
 - Tips for meetings with individual communities?
 - Reaching underserved and under-resourced communities?
 - Strategies that have worked for you?



Funding

FHWA Active Discretionary Grant Programs Eligibility

DISCRETIONARY GRANT PROGRAMS*	State DOT	Metropolitan Planning Organization (MPO)	Local Government/ Agency	Federally-Recognized Indian Tribes	Federal Lands Management Agency (FLMA)	Puerto Rico	Other U.S. Territory	Other Entities*
Rebuilding American Infrastructure with Sustainability & Equity (RAISE)	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Nationally Significant Multimodal Freight & Highway Projects (INFRA)	Yes	Yes <i>(population > 200K)</i>	Yes	Yes	Yes	Yes		Yes
Rural Surface Transportation Grant Program (RURAL)	Yes	Yes <i>(outside urbanized area)</i>	Yes	Yes		Yes		Yes
Safe Streets & Roads for All (SS4A) Program		Yes	Yes	Yes				Yes
Bridge Investment Program (BIP)	Yes	Yes <i>(population > 200K)</i>	Yes	Yes	Yes	Yes		Yes
Reconnecting Communities Pilot Program (RCPP)	Yes <i>(if owner)</i>	Yes <i>(if owner)</i>	Yes <i>(if owner)</i>	Yes <i>(if owner)</i>		Yes <i>(if owner)</i>		Yes <i>(if owner)</i>
Promoting Resilient Operations for Transformative, Efficient, & Cost-Saving Transportation (PROTECT) Program	Yes	Yes	Yes	Yes	Yes <i>(jointly with State DOT)</i>	Yes	Yes <i>(at-risk coastal)</i>	Yes
National Culvert Removal, Replacement, & Restoration Program	Yes		Yes	Yes				

* List does not contain all BIL-authorized grant programs and/or demonstration project opportunities. "Other Entities" may include eligible multi-jurisdictional group, regional transportation authority, special purpose district/public authority with a transportation function, transit agency, multi-state corridor organization, non-profit organization, public toll authority, or partnership between Amtrak & one or more other eligible entities.

Funding

Rebuilding American Infrastructure with Sustainability & Equity (RAISE)

Purpose:	Local & Regional Project Assistance Program – Transportation improvement projects with a significant local or regional impact
Funding:	\$7.5B (FY 22-26) – Advanced Appropriations (General Fund)
Eligible Projects	<ul style="list-style-type: none">• Highway or bridge projects (eligible under Title 23)• Public transportation projects• Passenger or freight rail projects• Port infrastructure investments• Airport surface transportation components• Projects to prevent stormwater runoff, including culvert rehabilitation or replacement• Tribal land surface transportation facility investments
Other Key Provisions	<ul style="list-style-type: none">• Minimum Award Size: Planning – N/A; Capital - \$1 million Rural / \$5 million Urban• Maximum Award Size: Capital: \$25 million (BIL) / \$45 million (FY Appropriations)

Funding

Infrastructure for Rebuilding America (INFRA)

Purpose:	Multimodal Projects Discretionary Grant (MPDG) Program Component #2 (<i>Nationally Significant Multimodal Freight & Highway Projects</i>) – Provide funding for multimodal freight and highway projects of national or regional significance.
Funding:	\$8.0B (FY 22-26), including: <ul style="list-style-type: none">– \$4.8B Contract Authority (Highway Trust Fund)– \$3.2B Advanced Appropriations (General Fund)
Eligible Projects	<ul style="list-style-type: none">• National Multimodal Freight Network (NHFN) highway freight project• National Highway System (NHS) highway or bridge project• Freight-based intermodal, rail, port, or marine highway improvement project• Railway-highway grade crossing or separation project• Wildlife crossing project• Surface transportation project within or functionally connected to an international border crossing
Other Key Provisions	<ul style="list-style-type: none">• Up to 30% (per FY) may used for non-highway freight projects• 15% set aside for small projects (< \$100 million)• 30% set aside for rural area projects

Funding

Rural Surface Transportation Grant Program (RURAL)

Purpose:	Multimodal Projects Discretionary Grant (MPDG) Program Component #3 – Improve and expand rural area surface transportation infrastructure to increase connectivity, improve people/freight movement safety & reliability, generate economic growth, & enhance quality of life.
Funding:	\$2.0B (FY 22-26) – Contract Authority (Highway Trust Fund)
Eligible Projects	<ul style="list-style-type: none">• National Highway Performance Program (NHPP), Surface Transportation Block Grant (STBG), or Tribal Transportation Program highway, bridge, or tunnel project• National Highway Freight Program (NHFP) highway or freight improvement project• Highway safety improvement project• Publicly-owned highway/bridge project improving rural area economic accessibility• Integrated mobility management system, transportation demand management system, or on-demand mobility service improvements
Other Key Provisions	<ul style="list-style-type: none">• 10% set aside for small projects (< \$25 million)• 25% set aside for Appalachian Development Highway System (ADHS) projects• 15% set aside for Rural Roadway Lane Departure projects

Funding

Safe Streets & Roads for All (SS4A) Program

Purpose:	Support local initiatives to prevent transportation-related death and serious injury on roads/streets (commonly referred to as “Vision Zero” or “Toward Zero Death” initiatives).
Funding:	\$5.0B (FY 22-26) – Advanced Appropriations (General Fund)
Eligible Projects	<ul style="list-style-type: none">• Developing Comprehensive Safety Action Plans (Planning Grant)• Conducting planning, design, and development activities for infrastructure projects and strategies identified in Comprehensive Safety Action Plans• Carrying out projects and strategies identified in Comprehensive Safety Action Plans
Other Key Provisions	<ul style="list-style-type: none">• Sets aside not less than 40% of total funding (per FY) for Planning Grants.• Requires considering, among other factors, the likelihood of a project significantly reducing or eliminating fatalities and serious injuries involving various road users, including pedestrians, bicyclists, public transportation users, motorists, & commercial operators.

Funding

Bridge Investment Program (BIP)

Purpose:	Improve bridge/culvert condition, safety, efficiency, & reliability.
Funding:	\$12.5B (FY 22-26), including: <ul style="list-style-type: none">– \$3.3B Contract Authority (Highway Trust Fund)– \$9.2B Advanced Appropriations (General Fund)
Eligible Projects	<ul style="list-style-type: none">• Replace, rehabilitate, and/or preserve one or more bridges on the National Bridge Inventory (NBI) database• Replace or rehabilitate culverts to improve flood control and enhance habitat connectivity for aquatic species
Other Key Provisions	<ul style="list-style-type: none">• 50% of funds reserved for large projects (> \$100 million) with option for multi-year funding agreements.• \$40 million (per FY) set aside for Tribal transportation bridges (administered under the Tribal Transportation Program)

Funding

Reconnecting Communities Pilot Program (RCPP)

Purpose:	Restore community connectivity by removing, retrofitting, or mitigating highways or other transportation facilities that create barriers to community connectivity, whether through mobility, accessibility, or economic development.
Funding:	\$1.0B (FY 22-26), including: <ul style="list-style-type: none">– \$500M Contract Authority (Highway Trust Fund)– \$500M Advanced Appropriations (General Fund)
Eligible Projects	<ul style="list-style-type: none">• Community connectivity planning studies• Capital construction projects, including the removal and replacement of eligible transportation facilities
Other Key Provisions	<ul style="list-style-type: none">• Planning grants (\leq \$2 million) may be obtained through State/Territory DOTs, MPOs, local/tribal governments, & non-profit organizations.• For capital construction grants (\geq \$5 million), applicant/implementing agency must be the owner of an eligible facility or provide written support documentation from the facility owner.

Funding

Promoting Resilient Operations for Transformative, Efficient, & Cost- Saving Transportation Projects (PROTECT) Program

Purpose:	Conduct resilience-based planning, construct infrastructure/community resilience & adaptation improvements, add/improve evacuation routes, & increase durability of at-risk coastal infrastructure.
Funding:	\$1.4B (FY 22-26) – Contract Authority (Highway Trust Fund)
Eligible Projects	<ul style="list-style-type: none">• Highway, transit, intercity passenger rail, & port facilities• Resilience/adaptation planning activities, including Resilience Improvement Plans, evacuation planning/preparation, & capacity-building• Resilience-based construction activities• Evacuation route construction or improvements
Other Key Provisions	<ul style="list-style-type: none">• Higher Federal cost share (from 80% to 90%) if eligible entity develops a Resilience Improvement Plan (or within a State or MPO area with a Resilience Improvement Plan) incorporated into the State/MPO long-range transportation plan.• 40% of funds available for construction of new capacity.

Funding

Efforts to Support Smaller Cities in Developing Grant Applications

- What information would be most useful to smaller cities and communities?
- What resources or assistance would be most helpful?
- What are the current challenges smaller cities and communities face when applying for grants or hearing about them?
- Do communities have dedicated staff for grant applications or do they use consultants?

Preparing for Discretionary Grant Opportunities

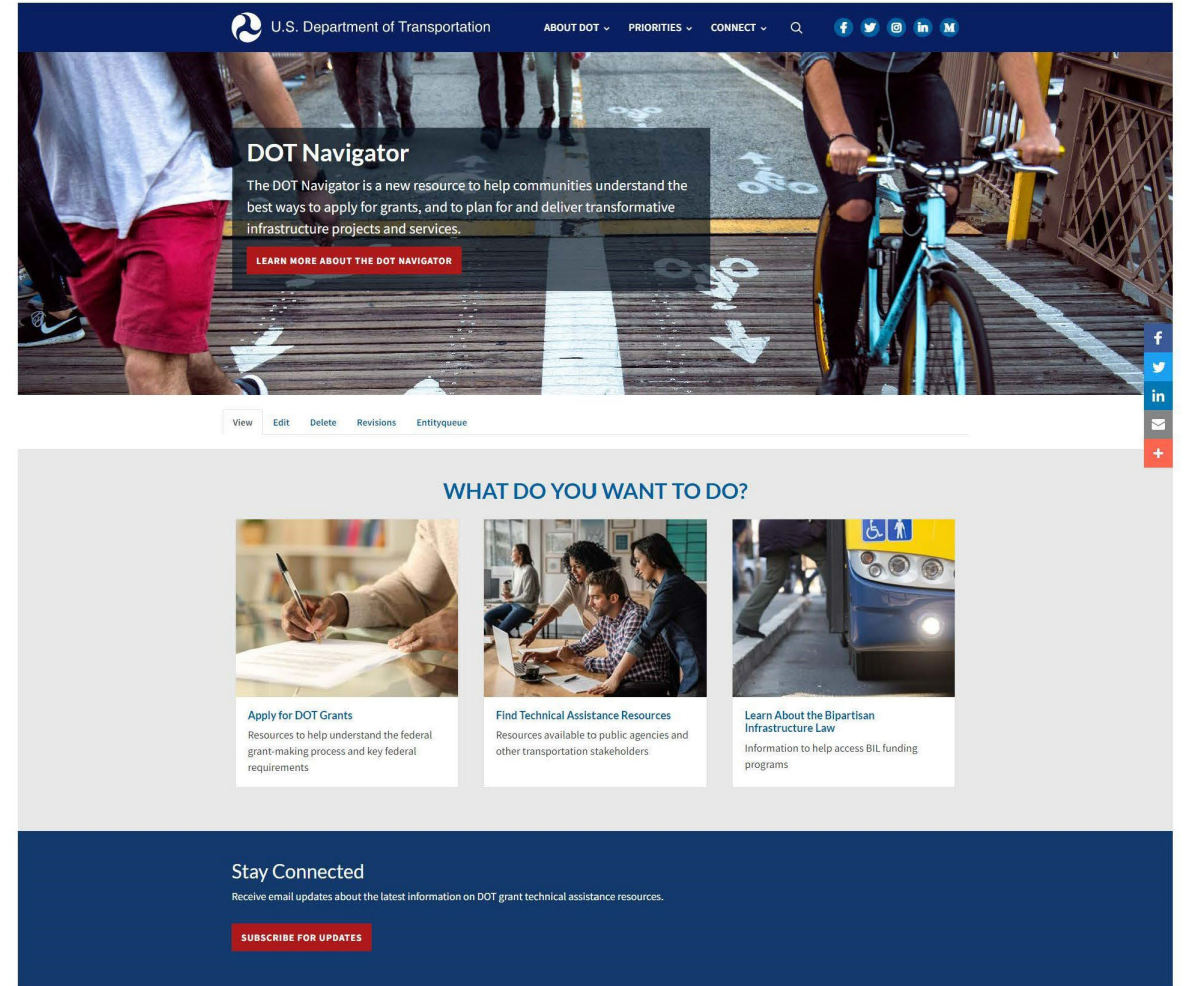
DOT Navigator

Coordinating & Improving Access to USDOT Technical Assistance Resources

<https://transportation.gov/dot-navigator>

▣ Sample Grant Application Resources:

- Overview of USDOT Funding/Financing
- USDOT Discretionary Grant Process
- Understanding Federal Match Requirements
- Federal Tools – Determination of Area of Persistent Poverty (APP) & Historically Disadvantaged Community (HDC) Status
- Maximizing Award Success
- Is Federal Funding the Right Fit for My Organization?

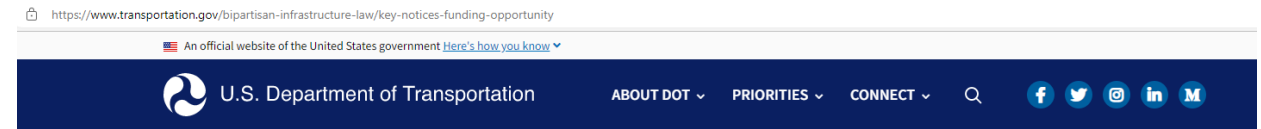


The screenshot shows the DOT Navigator website homepage. At the top, there is a dark blue navigation bar with the U.S. Department of Transportation logo and menu items: ABOUT DOT, PRIORITIES, and CONNECT. Below the navigation bar is a large hero image of a person riding a bicycle on a wooden boardwalk. Overlaid on the image is the text: "DOT Navigator" and "The DOT Navigator is a new resource to help communities understand the best ways to apply for grants, and to plan for and deliver transformative infrastructure projects and services." A red button labeled "LEARN MORE ABOUT THE DOT NAVIGATOR" is positioned below the text. Below the hero image is a row of social media icons (Facebook, Twitter, Instagram, LinkedIn, YouTube) and a red plus sign. Below the social media icons is a row of menu items: View, Edit, Delete, Revisions, and Entityqueue. Below the menu items is a section titled "WHAT DO YOU WANT TO DO?" with three cards: "Apply for DOT Grants", "Find Technical Assistance Resources", and "Learn About the Bipartisan Infrastructure Law". Below the cards is a "Stay Connected" section with a red button labeled "SUBSCRIBE FOR UPDATES".

Preparing for Discretionary Grant Opportunities (cont.)

FY 23 Checklist

- 1) Coordinate between agencies and engage stakeholders.
- 2) Get familiar with the USDOT Key Notices of Funding Opportunity (NOFO) Calendar.
- 3) Budget for and secure non-Federal match.
- 4) Ensure project is on (and correctly listed in) the State/ MPO Transportation Improvement Program (TIP/STIP). If not, identify process/timing for addition or modification.
- 5) Be ready to apply for/administer Federal funds.
- 6) Know your **Justice40 Initiative** designated U.S. Census tracts.
- 7) Prepare your capital project's benefit-cost analysis (if applicable).
- 8) Budget for meaningful public involvement.
- 9) Build a strong workforce development and labor plan.
- 10) In seeking funds, understand the National Environmental Policy Act (NEPA) and other Federal requirements.



Key Notices of Funding Opportunity

In order to provide stakeholders with more visibility into upcoming funding opportunities, DOT is publishing a list of anticipated dates for upcoming Notices of Funding Opportunity (NOFOs) for key programs within the Bipartisan Infrastructure Law (BIL) and the Inflation Reduction Act (IRA), as well as adjacent programs that support BIL and IRA objectives. This list is not comprehensive and will be updated periodically with additional programs and revised dates as appropriate.

Opening Date	NOFO	Operating Administration/Office	Closing Date (to be added for each program after the NOFO is issued)
1/27/2023	Buses and Bus Facilities	Federal Transit Administration	4/13/2023
1/27/2023	Low or No Emission Vehicle	Federal Transit Administration	4/13/2023
Winter 2023	Charging and Fueling Infrastructure	Federal Highway Administration	
Winter/Spring 2023	Promoting Resilient Operations for Transformative, Efficient, and Cost Saving Transportation (PROTECT) – Discretionary	Federal Highway Administration	
February 2023	Commercial Driver's License Program Implementation	Federal Motor Carrier Safety Administration	
February 2023	Commercial Motor Vehicle Operator Safety Training	Federal Motor Carrier Safety Administration	

<https://www.transportation.gov/bipartisan-infrastructure-law/key-notices-funding-opportunity>

Data and Technical Topics

Bridgeport Flooding Examples



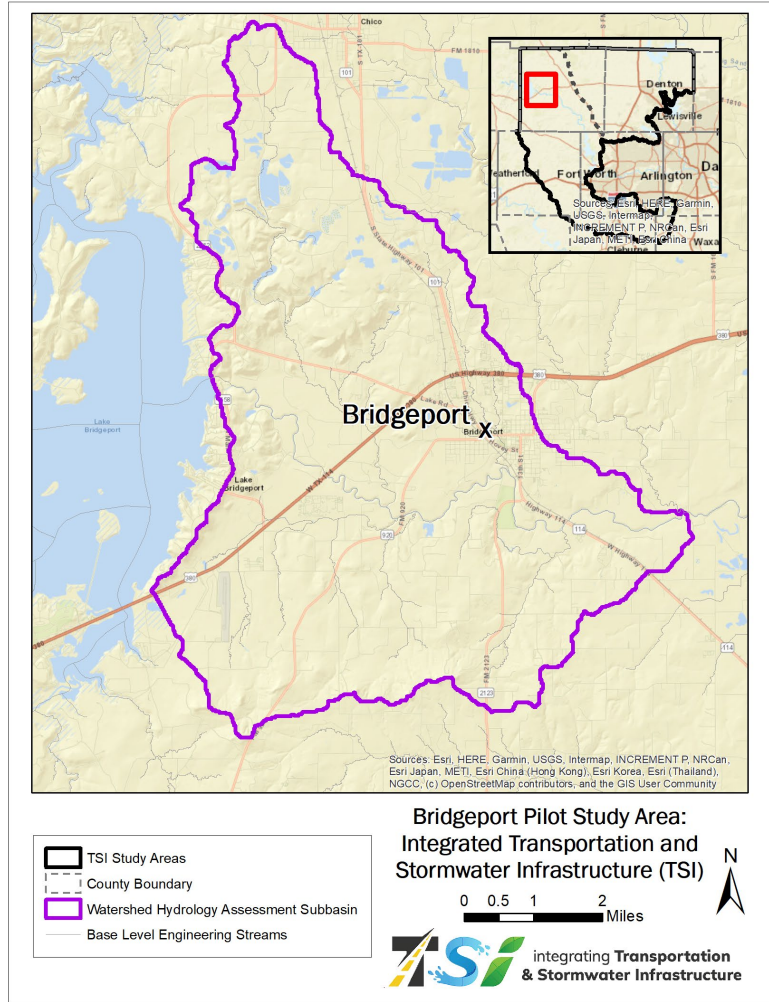
1990 flooding at Harwood Park in Bridgeport (Source: TRWD)



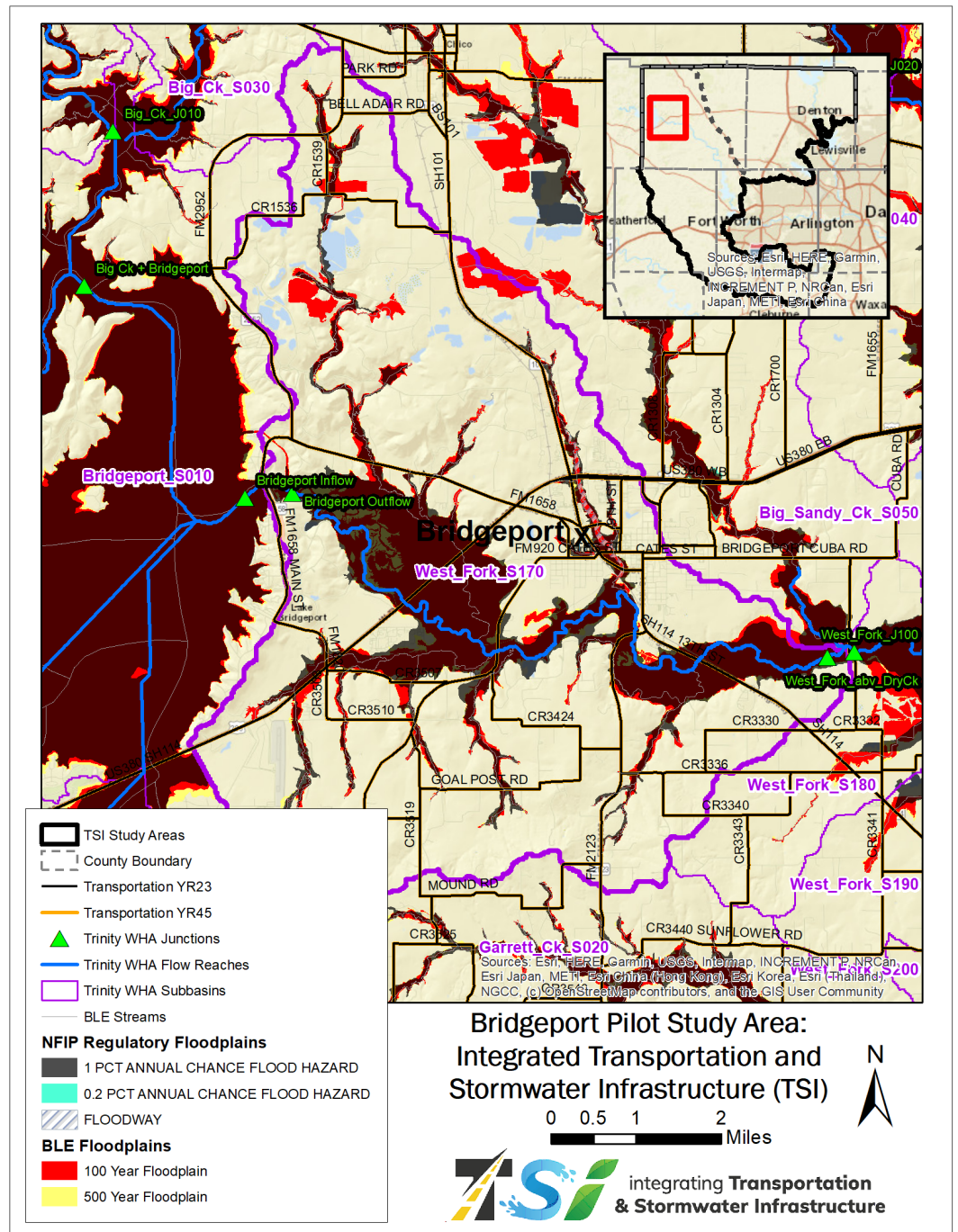
2021 Lake Bridgeport Spillway (Source: TRWD)

Data and Technical Topics

Bridgeport Pilot Study Area & Flooding Concerns

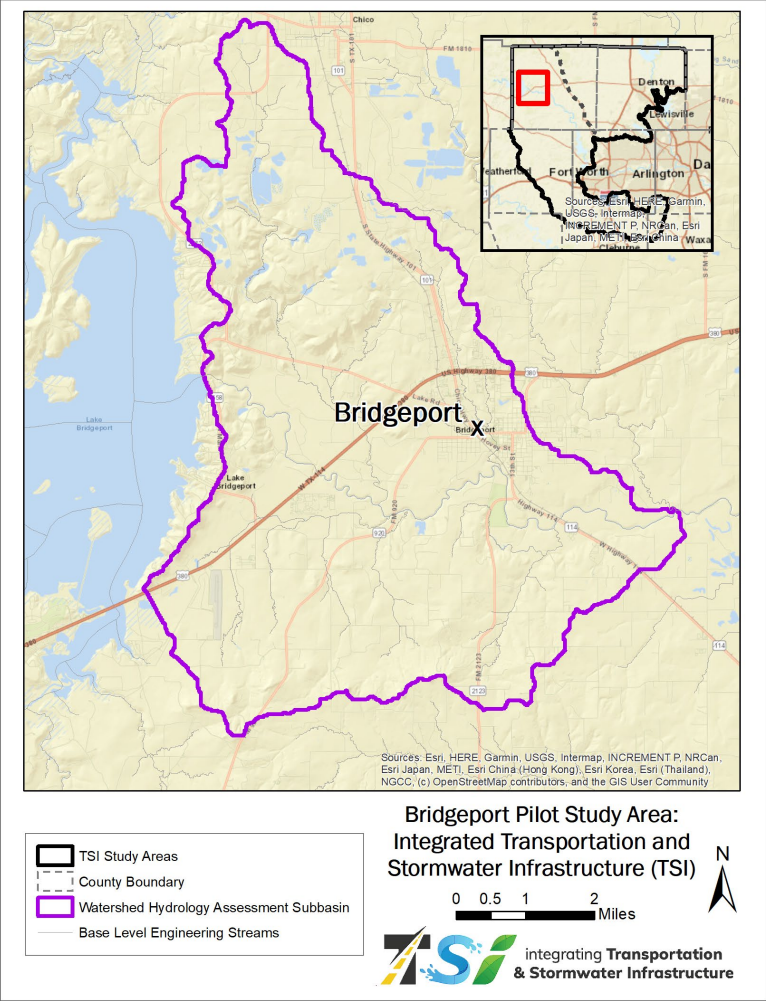


Bridgeport Pilot Study Area (40 Square Miles)



Data and Technical Topics

Bridgeport Pilot Study Scoped Tasks



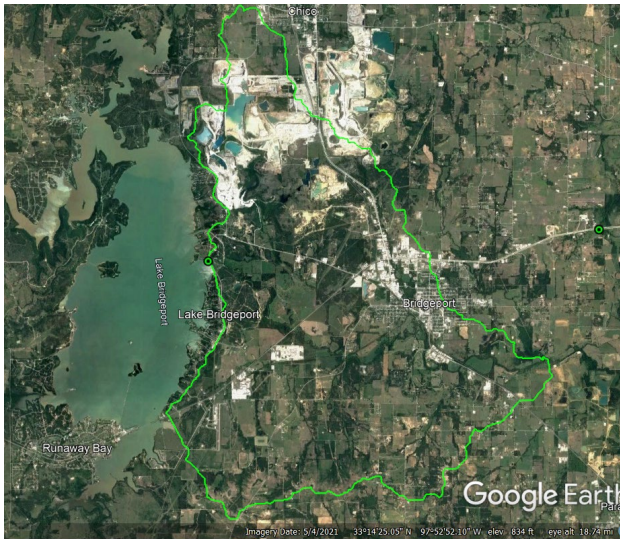
Pilot Study Deliverables

1. Retrieval and documentation of existing H&H information for inclusion in literature review
2. Coordination with planning, transportation, and environmental reviews
3. Enhanced hydrologic modeling for the Bridgeport Area of the Trinity River Watershed Hydrology Assessment (WHA) study
4. Enhanced hydraulic modeling for the Bridgeport Area of the FEMA Base Level Engineering (BLE) study
5. Summary of findings and recommendations for expanded services

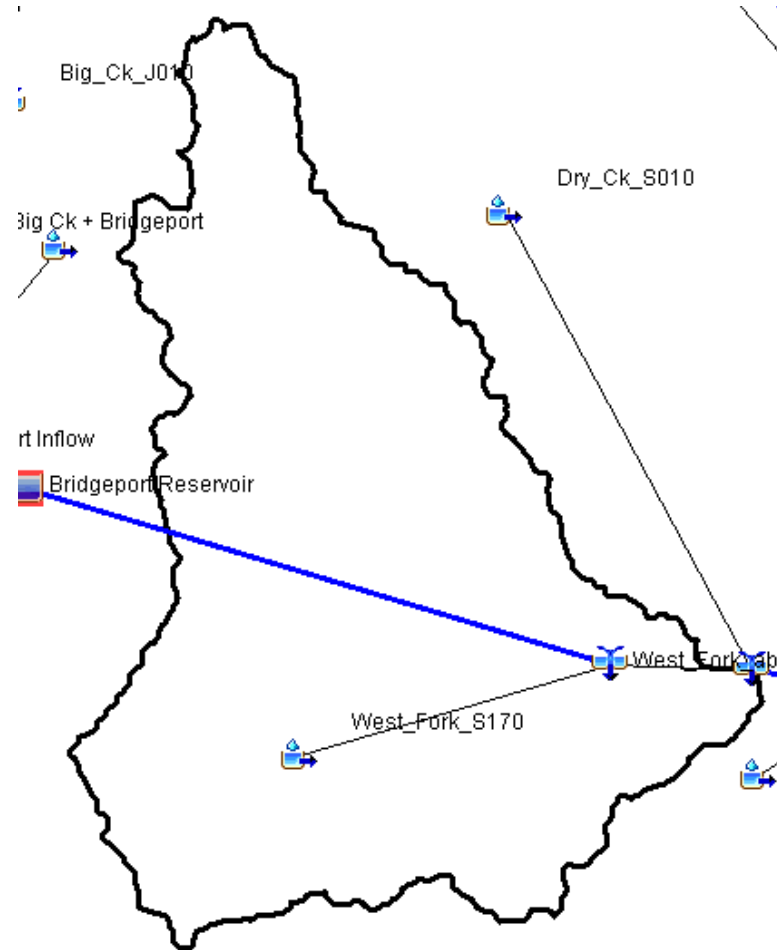
Data and Technical Topics

Hydrology Approach

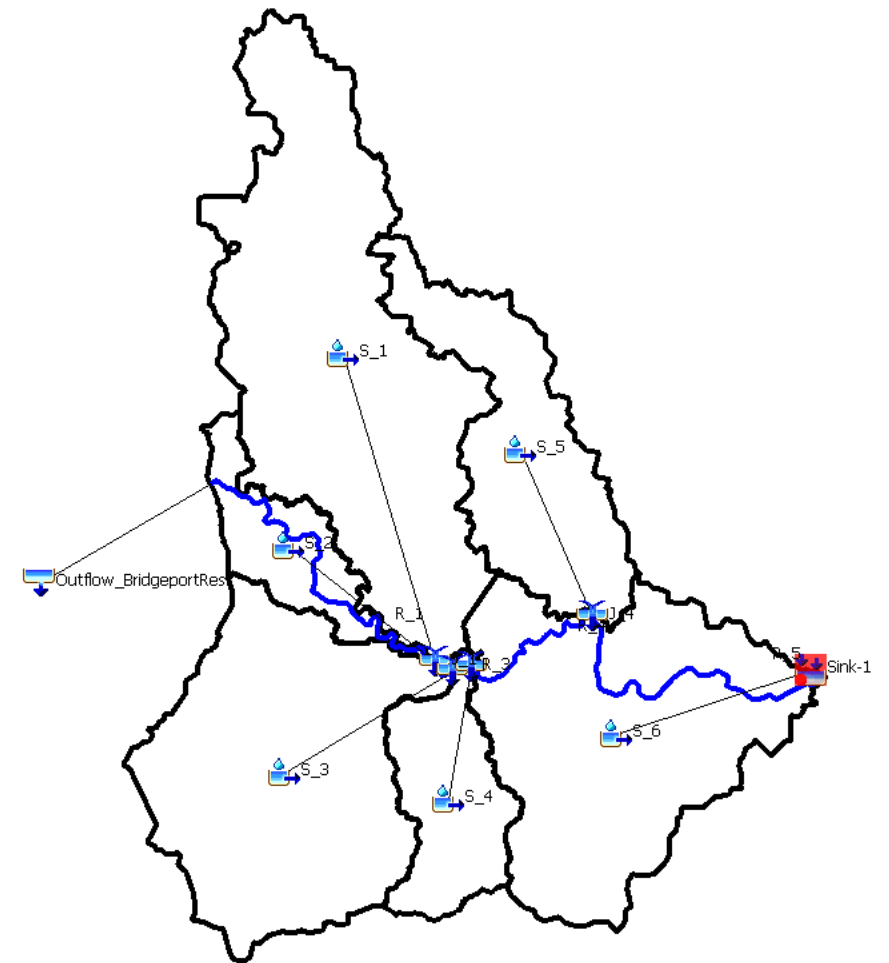
- Source: InFRM Watershed Hydrology Assessment
- Subdivided WHA into multiple subbasins to provide additional detail



InFRM WHA (Single Subbasin)



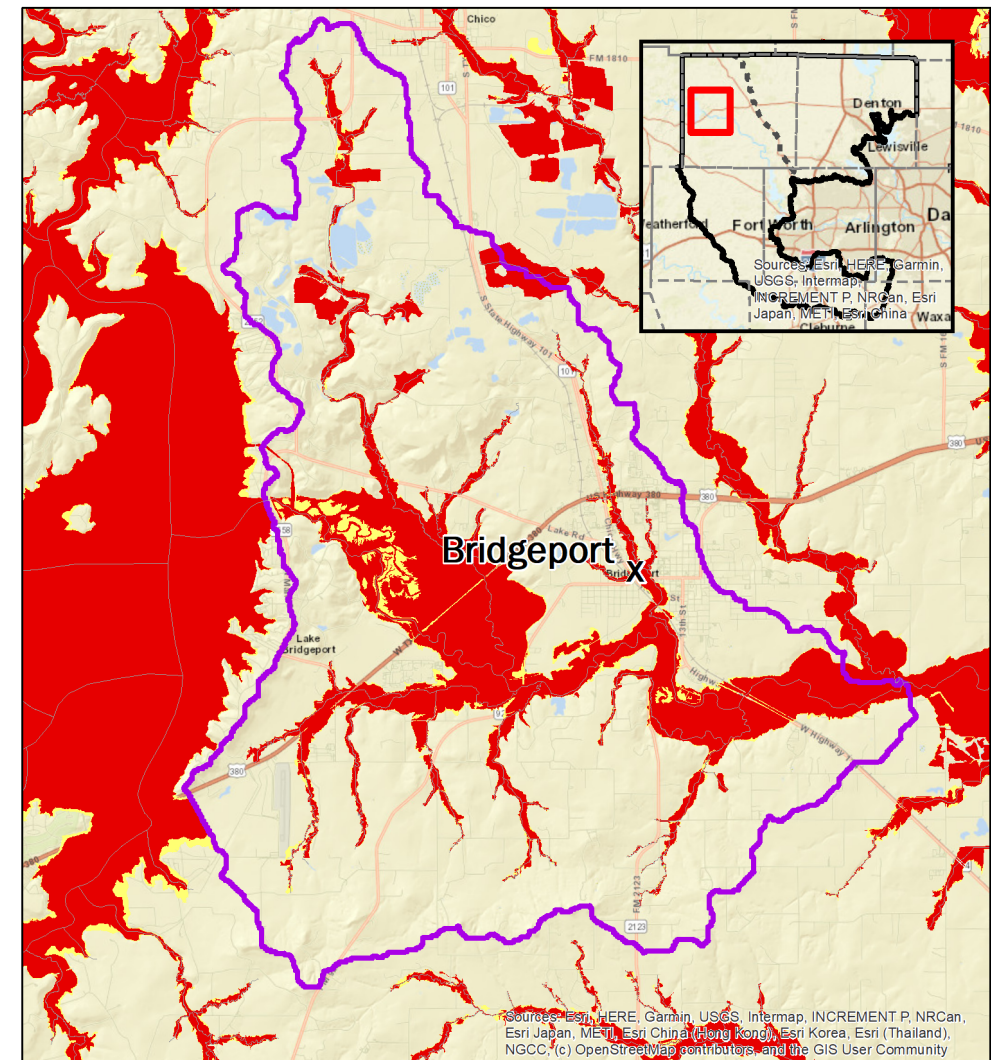
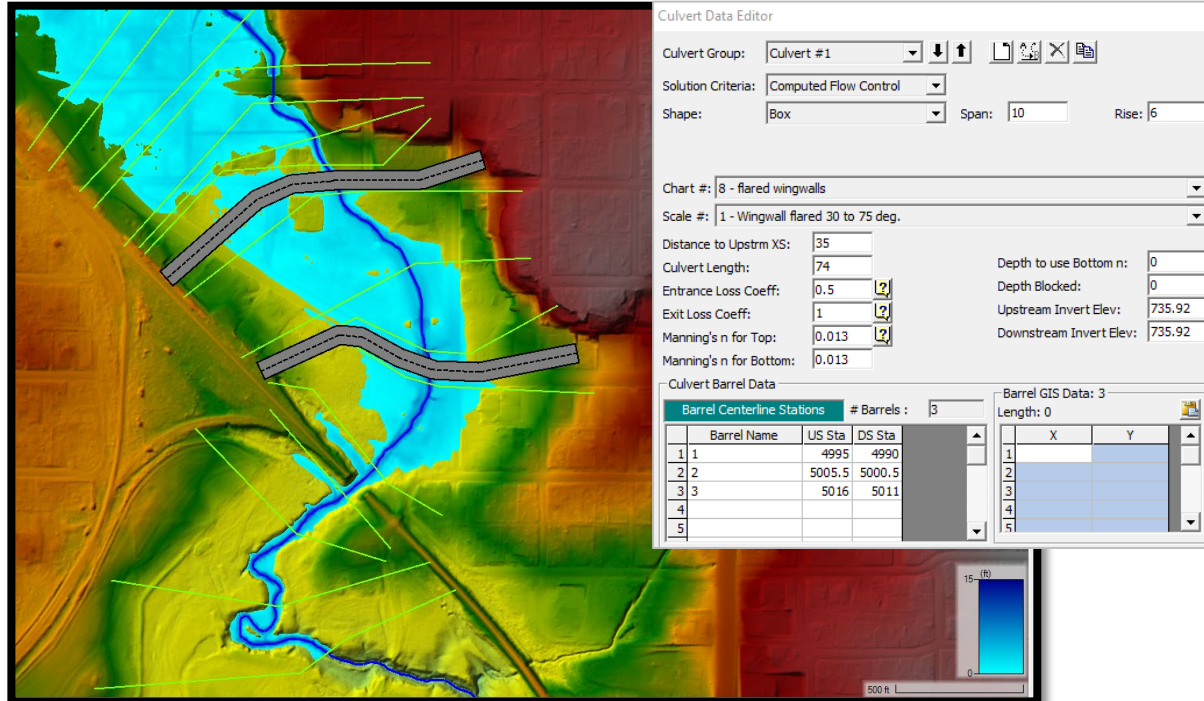
New Detailed Model (Multiple Subbasins)

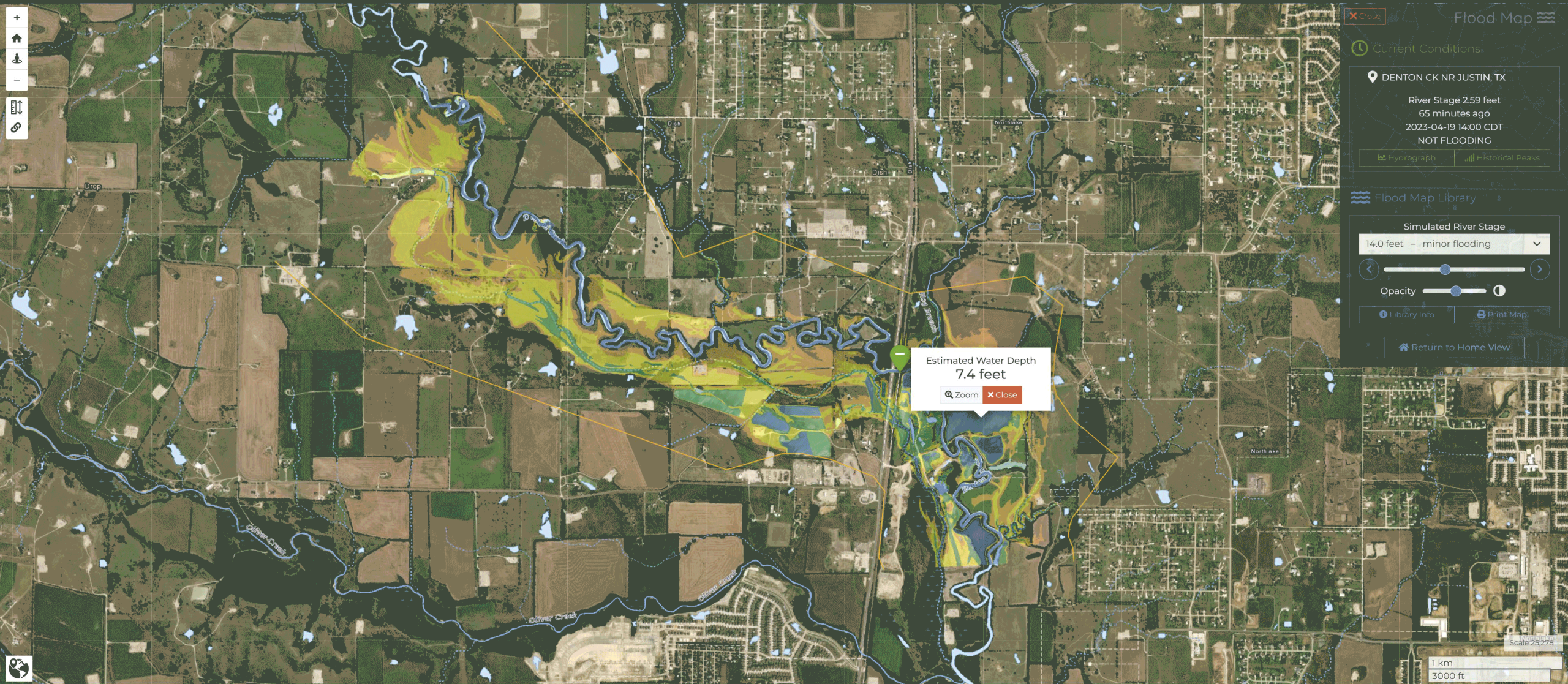


Data and Technical Topics

Hydraulics Approach

- Source: FEMA Base Level Engineering Data
- Add detail, urban drainage, determine environmental constraints (minimum flows)





Flood Map

Close

Current Conditions

DENTON CK NR JUSTIN, TX

River Stage 2.59 feet
65 minutes ago
2023-04-19 14:00 CDT
NOT FLOODING

Hydrograph Historical Peaks

Flood Map Library

Simulated River Stage

14.0 feet -- minor flooding

Opacity

Library Info Print Map

Return to Home View

Estimated Water Depth
7.4 feet
Zoom Close

Data and Technical Topics

Seeking Stormwater Data – Less Urban Areas

- Data to support riverine modeling
- Downstream release from reservoirs, detention ponds
 - Any factors that could increase flow or affect aquatic populations
- Streams
 - Channelized or natural?
 - Width of riparian area?

Data and Technical Topics

Seeking Stormwater Data – More Urban Areas

- Data to support urban drainage modeling
- Gray infrastructure
- Inputs to models¹ of soil and water assessment, ecosystem functioning, and storm water management, including locations of:
 - Detention ponds
 - Nature based solutions
 - Green stormwater infrastructure
 - Velocity control efforts
 - Erosion control efforts
 - BMPs

Data and Technical Topics

Aquifer Recharge / Aquifer Storage and Recovery

	Aquifer Recharge	Aquifer Storage and Recovery
Goal	Replenish aquifer, typically for environmental goals	Store water during wet periods that can be recovered for drinking water during dry periods
Feasibility/ Business Case	Lower	Higher because of water supply use
Method	Infiltration pond	Injection well
Location	Less control over where water goes	More control over water goes

Data and Technical Topics

More on Aquifer Storage and Recovery

- Can be used for drought preparedness – a “savings account” of water
- Need to “cycle test” to identify where injected bubble of water will drift to and test for chemical incompatibility
- Need to study economic feasibility
- Can extend water supply but not necessarily eliminate need for reservoir
- Example: Tarrant Regional Water District pilot study
 - \$8 million for consulting, design, testing, drilling
 - Approximately 11 years from beginning of feasibility study to end of cycle testing

Policy

Water Rights Workshop/Webinar

- Target audience: City and county staff, others?
- Target date/time: Spring 2024, 1.5 hours
- Specific topic ideas:
 - Groundwater and surface water law
 - Diffused surface water (aka stormwater or rain or snow)
 - Waters of the U.S. – implications for infrastructure, next steps for Texas, guidance specific to TSI work
 - Waters of the State of Texas
- What specific topic ideas and speaker recommendations does the group have?

Policy

Wise County Flooding Outreach

- Many flood studies in Wise County:
 - TSI Bridgeport Pilot Study (USACE)
 - Upper West Fork Risk Discovery (NCTCOG)
 - Wise County Flood Depth Surface Elevation Visualization (Texas A&M)
 - Model Enhancement Study (USACE)
 - Flood Decision Support Toolbox (USGS)
 - COMMON VISION Program and CDC Process (NCTCOG)
- Bring study leaders and city/county staff together to discuss studies and flooding issues

Policy

Review of New Texas Legislation

HB 3699/HB14: Platting, shot clock, and delegation

HB 586: Annexation of Right of Way (ROW)

SB 929: Non-conformity and zoning notices

SB 2038: Extra-Territorial Jurisdiction (ETJ) disannexation

HB 2127: Preemption of certain municipal and county regulations

HB 3582: Composition and use of money in the flood infrastructure fund

HB 4742: Study by TWDB to address issues with artificial drainage systems

SB 28: Financial assistance and programs administered by TWDB

SB 28/SJR 75: Texas Water Fund and the New Water Supply for Texas Fund

Next Steps

Next Steps

- Draft Community Engagement Plan
- Plan additional workshops
- Begin environmental planning work and Environmental Literature Review
- Applying modeling findings from the Pilot Study to the larger Study Area
- Project future stormwater fees
- Administrative tasks

Contacts

Kate Zielke

Program Supervisor, NCTCOG

KZielke@nctcog.org

817-695-9227

Susan Alvarez, PE, CFM

E&D Department Director, NCTCOG

Salvarez@nctcog.org

817-704- 2549

Jai-W Hayes-Jackson, CFM

Planner, NCTCOG

jhayes-jackson@nctcog.org

817-695-9212

Jeff Neal

Senior Program Manager, NCTCOG

jneal@nctcog.org

817-608-2345

Matt Lepinski, PE

Water Resources Engineer, USACE

Matthew.T.Lepinski@usace.army.mil

817-266-6520

Fouad Jaber, PhD, PE

Professor and Extension Specialist, Texas A&M AgriLife Extension

Fouad.Jaber@ag.tamu.edu

972-952-9672

Nick Z. Fang, PhD, PE

Associate Professor, The University of Texas at Arlington

NickFang@uta.edu

817-272-5334

Aaron Hoff

Watershed Programs Manager, TRWD

Aaron.Hoff@trwd.com

817-720-4453