InFRM Products Which Might Benefit Transportation

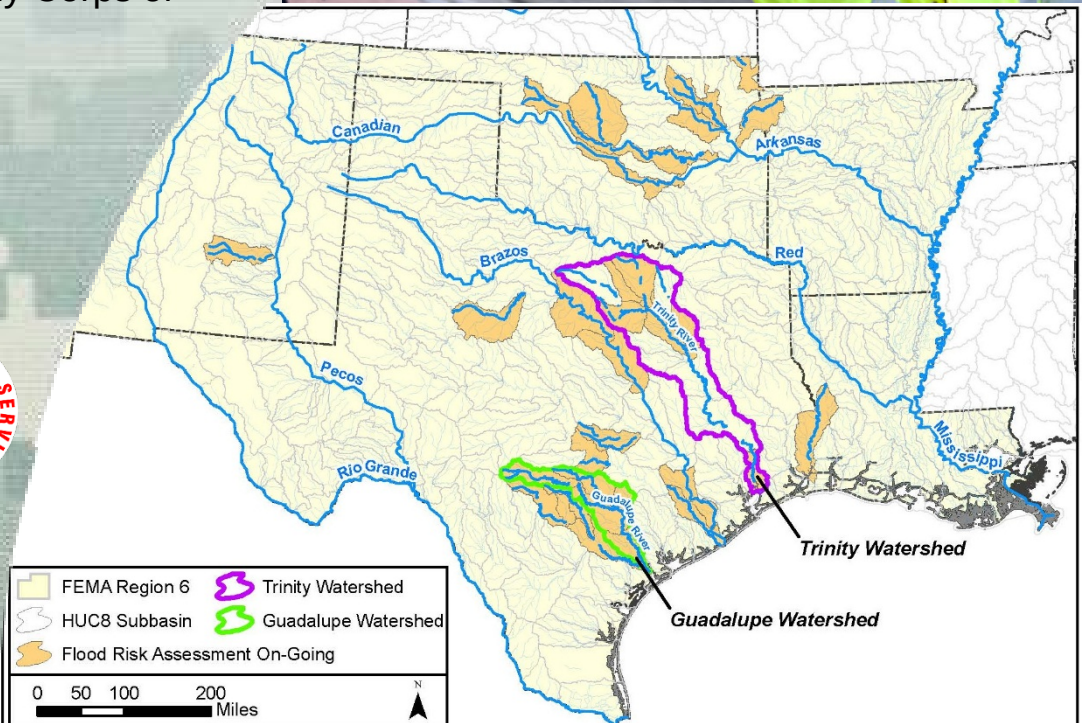
by InFRM

Date: 27 Jan. 2017

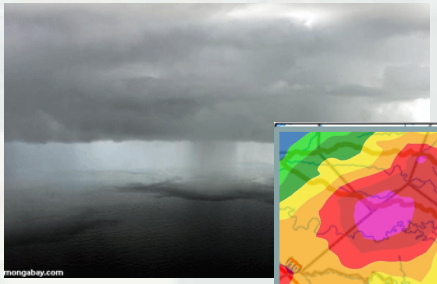
Audience: Surface Transportation Technical Committee (STTC)

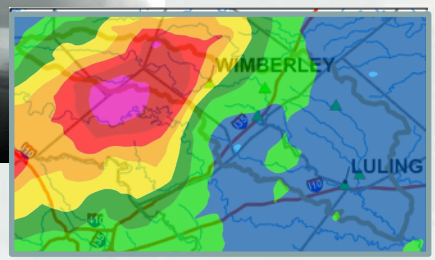
Jerry L. Cotter P.E.

Chief of Water Resources – Fort Worth, US Army Corps of Engineers

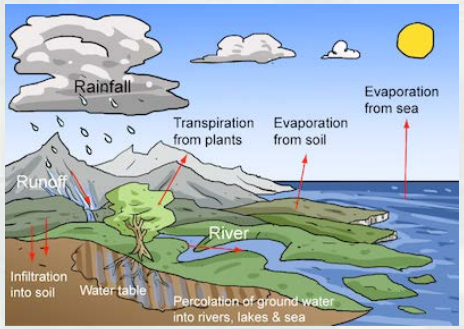


Components of Flood Impact Determinations

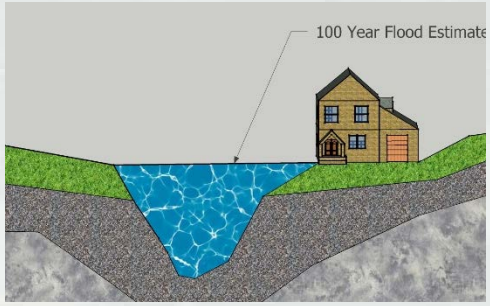




- Meteorology
  - How much rain



- Watershed Hydrology
  - How much runoff

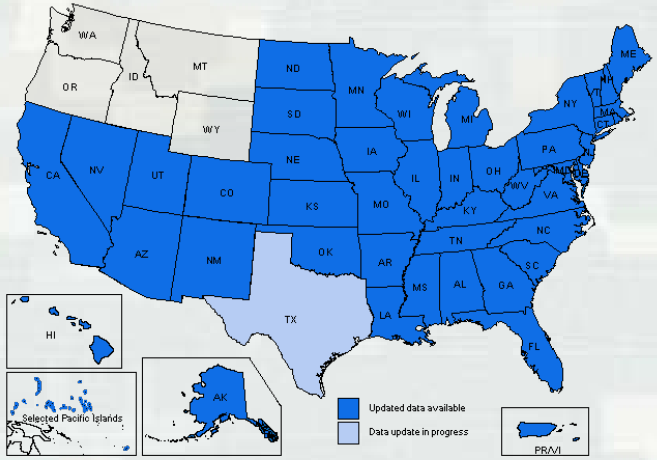


- River Hydraulics
  - How deep will the water get

InFRM
INTERAGENCY FLOOD RISK MANAGEMENT

NOAA Atlas 14 Volume for Texas

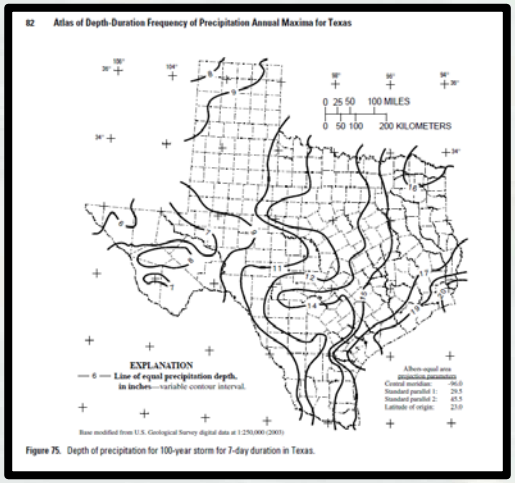
- **What is it:**
  - Important tool in storm water management
  - Precipitation frequency intensity estimates 1-yr to 1000-yr
  - How much rainfall in the 100-yr storm
  - Durations – 5 min. to 60 days



- **What is it used for:**
  - **All infrastructure designs**
  - **Engineering and design:**
    - Storm water run-off
    - Sizing detention basins and outlet structures
    - Bridges and Culverts
  - **Modeling:**
    - Flood risk management studies
    - Flood plain mapping (FIRM's)

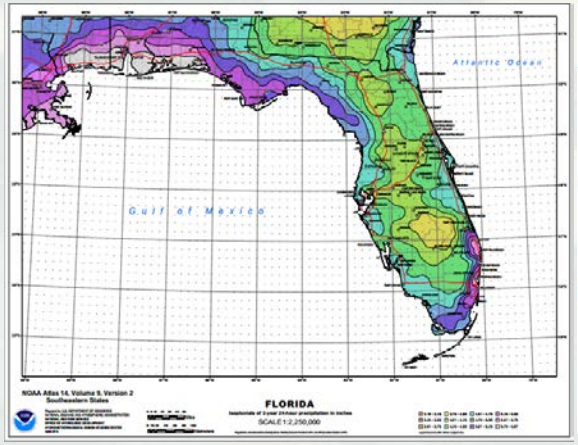
Improvements

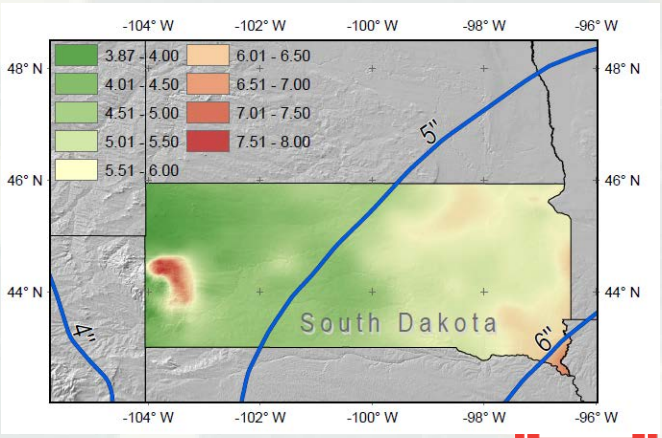
- State of the art technology
- Web based
- GIS formats
- Application accessible



Duration	Average recurrence interval (ARI)									
	1	2	5	10	25	50	100	200	500	1,000
5-min	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
10-min	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15-min	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
30-min	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
60-min	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2-hour	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3-hour	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6-hour	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
12-hour	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
24-hour	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2-day	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3-day	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4-day	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7-day	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
10-day	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
20-day	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
30-day	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
45-day	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
60-day	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Current Duration & Intensities





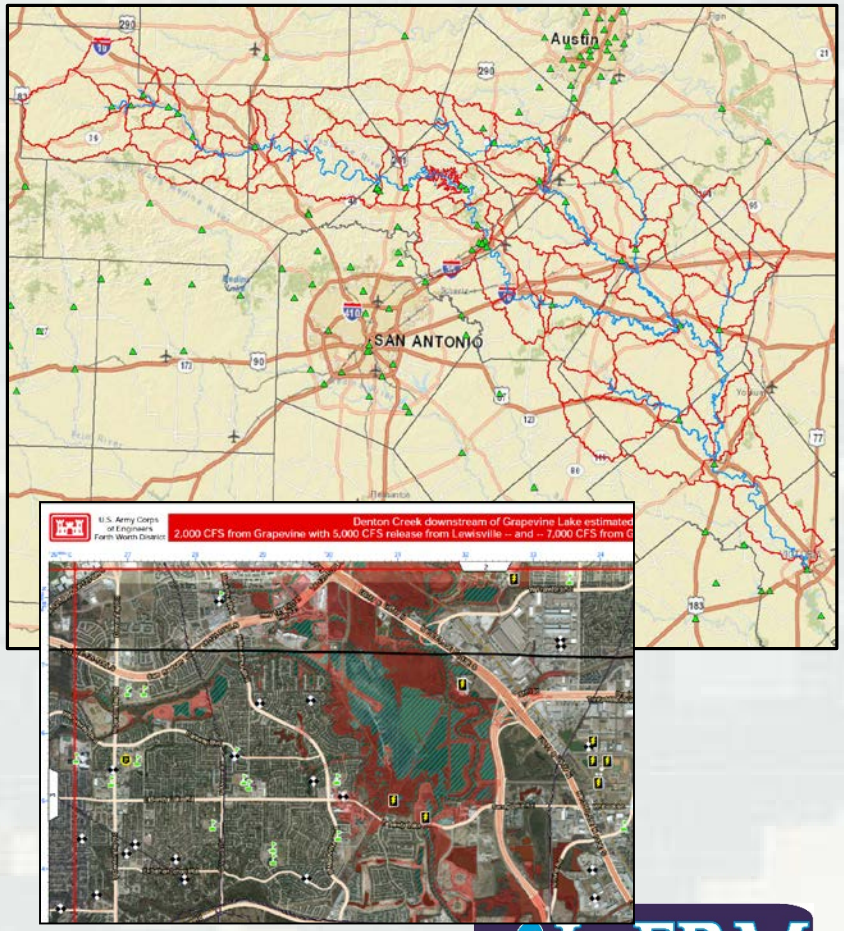
Funding and Project Schedule

- Current Project Schedule
  - Data collection and initial quality control [complete]
  - Technical and statistical analysis [JUNE 2017]
  - Peer review [AUGUST 2017]
  - Web publication [APRIL 2018]

- Budget and additional needs
  - Current contributions of $1.3M
    - Coalition of federal and state agencies along with municipalities
    - TxDOT major contributor
    - USACE
  - $300K needed for base package
  - Depth-Area-Duration Curve scope: $420K
  - Trend Analysis scope: $500K-$1M estimate

Interagency Flood Risk Management Team (InFRM)

- **FEMA** – Lead, funding, NFIP => FIRM's
- **USGS** – Scientific study resources, historical
- **NWS** – Scientific study resources, historical, forecasting responsibility, public facing
- **USACE** – Funding, resources, historical, program management, HHT's
- **Purpose: Decrease uncertainty**
- **Projects**
  - $5 M
  - Watershed hydrology assessments
    - Guadalupe, Trinity, Neches, Red
  - Inundation mapping
  - Web development

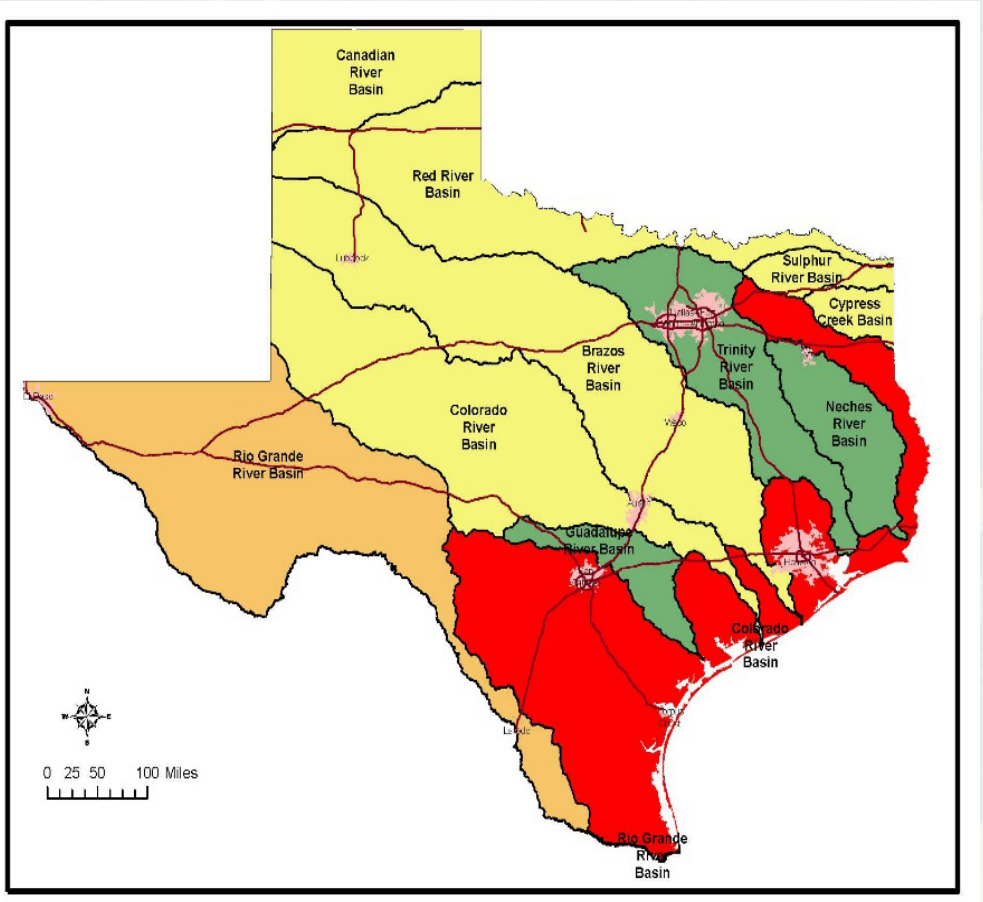


InFRM
INTERAGENCY FLOOD RISK MANAGEMENT

Watershed Hydrology Assessments

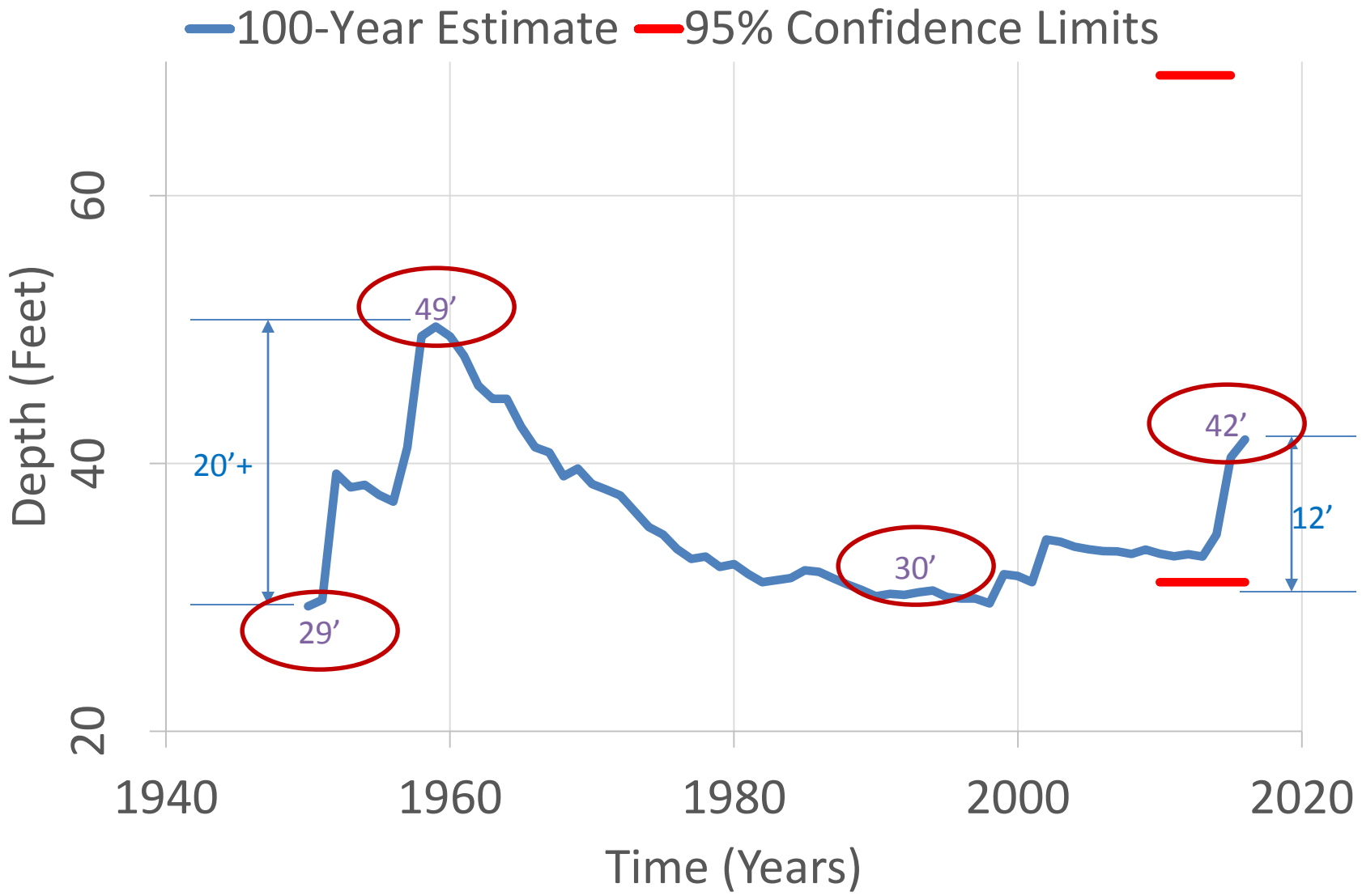
FEMA Region 6

- Infrastructure design and NFIP discharges
  - 2-yr, 5-yr, 10-yr, 25-yr, 50-yr, 100-yr, 250-yr, 500-yr
- Existing conditions
- Future conditions
- Climate change impacts (DOD funded)
- $11 million investment

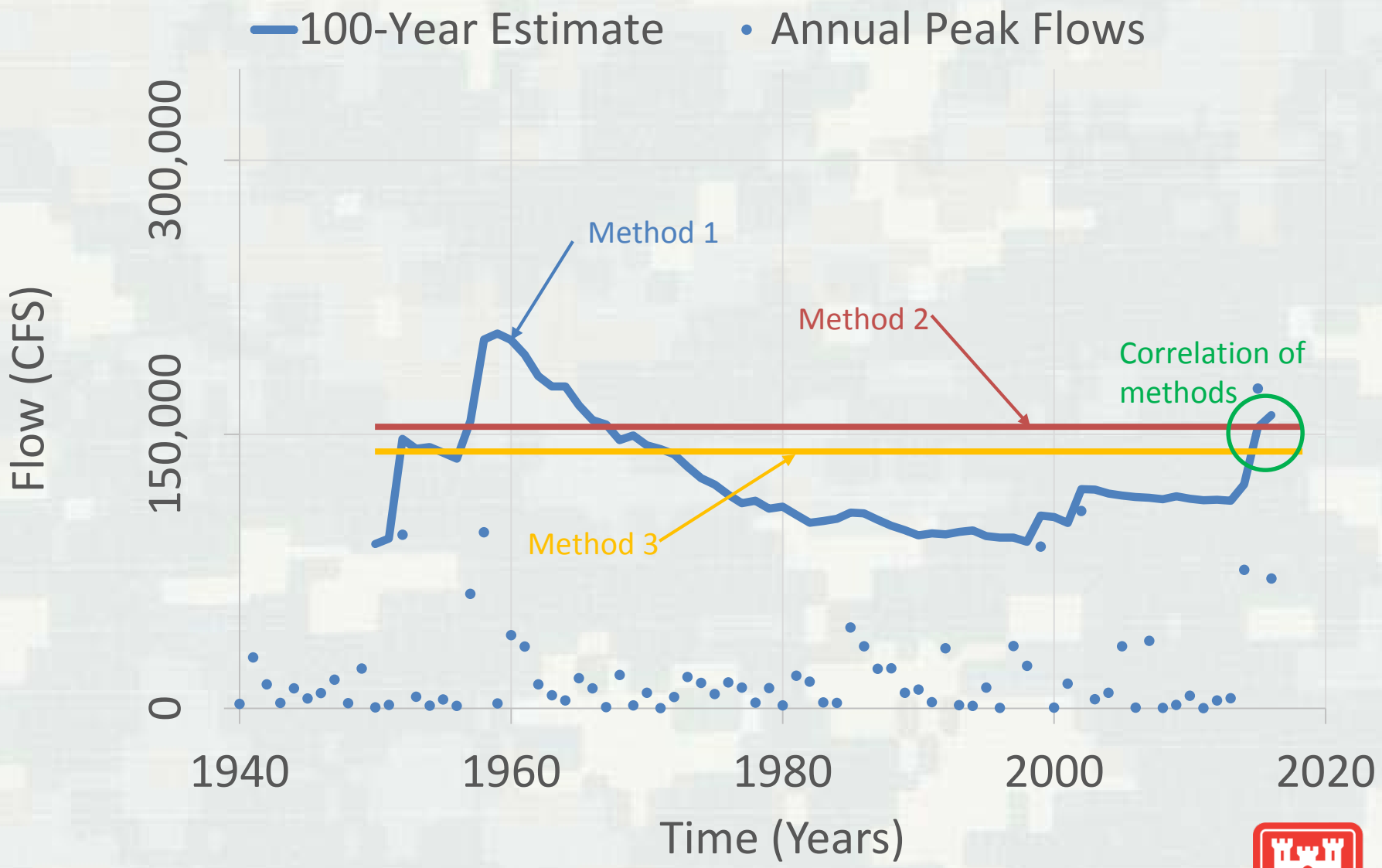


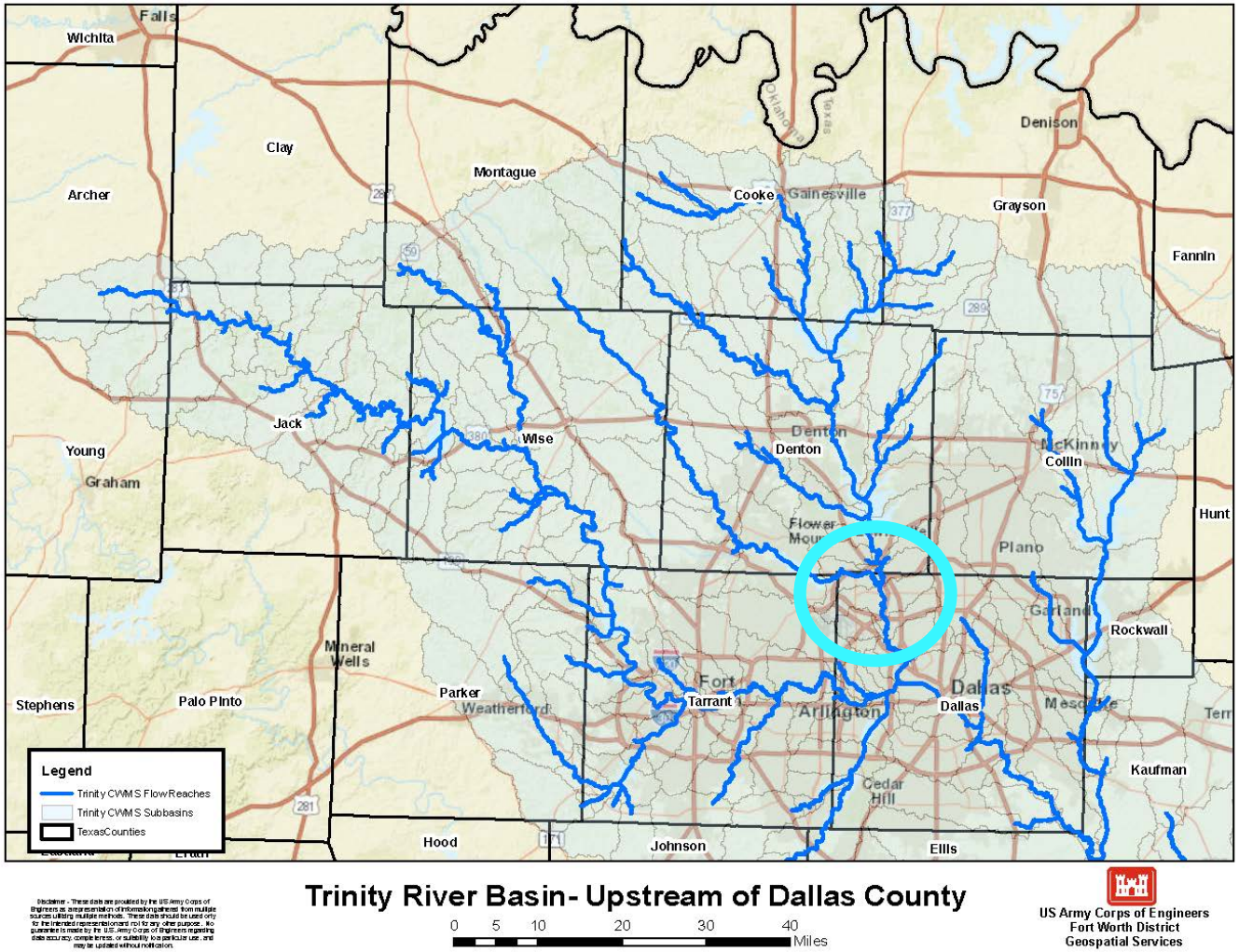
InFRM
INTERAGENCY FLOOD RISK MANAGEMENT

100-Year Depth Estimates - Statistical - Wimberley



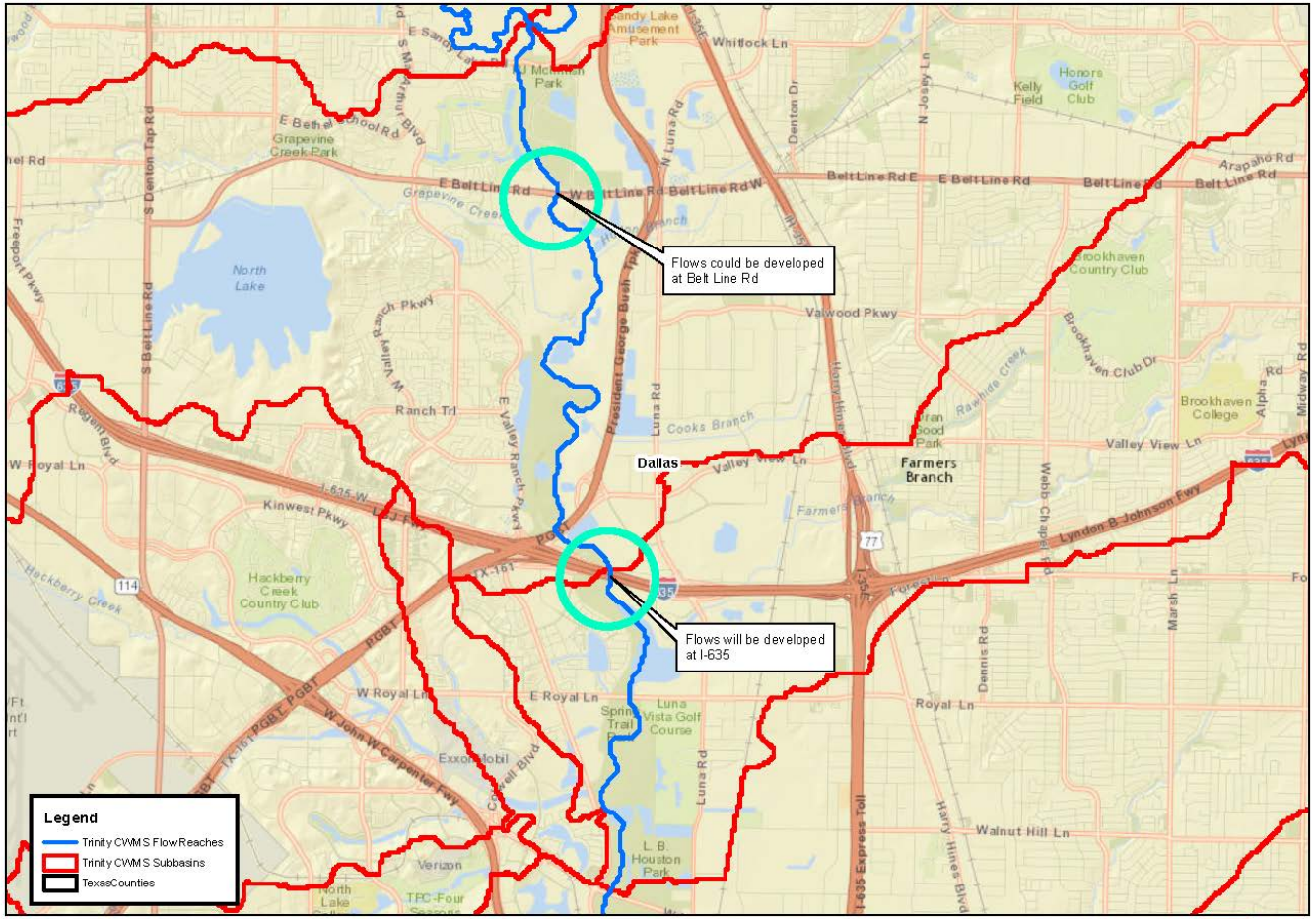
100-Year Flow Estimates - Model - Wimberley





Trinity River Basin- Upstream of Dallas County

US Army Corps of Engineers
Fort Worth District
Geospatial Services



Disclaimer - These data are provided by the US Army Corps of Engineers as a representation of information gathered from multiple sources utilizing multiple methods. These data should be used only for the intended representations and not for any other purpose. No guarantee is made by the U.S. Army Corps of Engineers regarding data accuracy, completeness, or suitability for a particular use, and may be updated without notification.

Trinity River Basin- Road Crossing

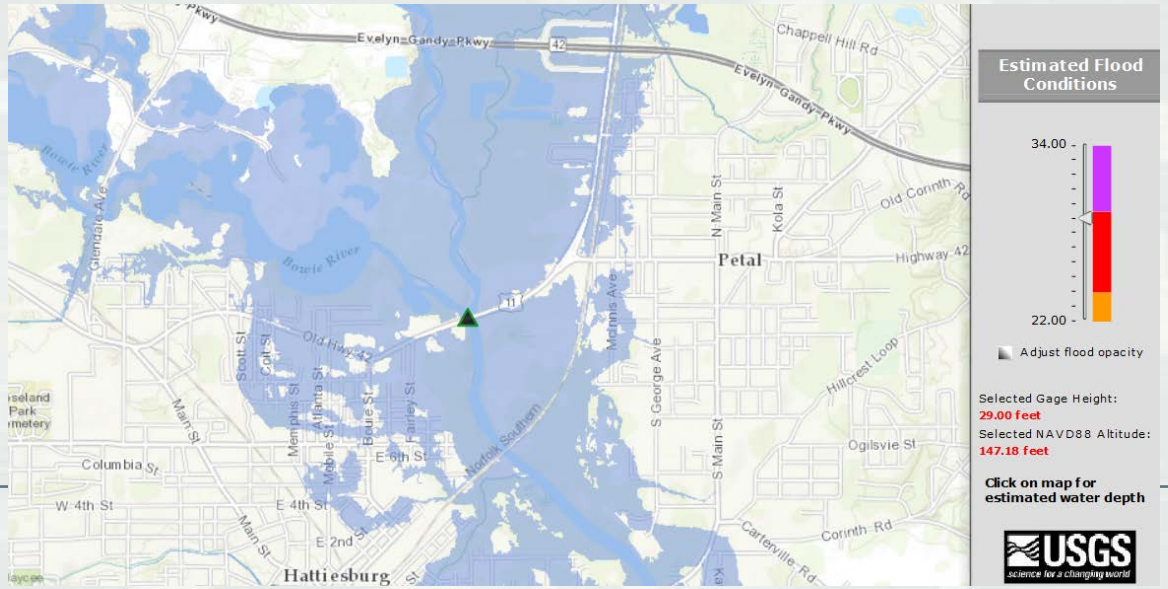
0 0.5 1 2 3 4 Miles

US Army Corps of Engineers
Fort Worth District
Geospatial Services

BUILDING STRONG®

InFRM Flood Inundation Mapping Program Goals

- Develop inundation mapping products for Texas
- Series of inundation maps
  - Readily available to emergency managers via web
  - Begin at minor flood state, end at max expected flood
  - Produced at appropriate intervals for the reach (1’ max)
  - Correlated to nearest NWS-RFC forecast point
  - Maps automatically update when new forecast is released



InFRM
INTERAGENCY FLOOD RISK MANAGEMENT

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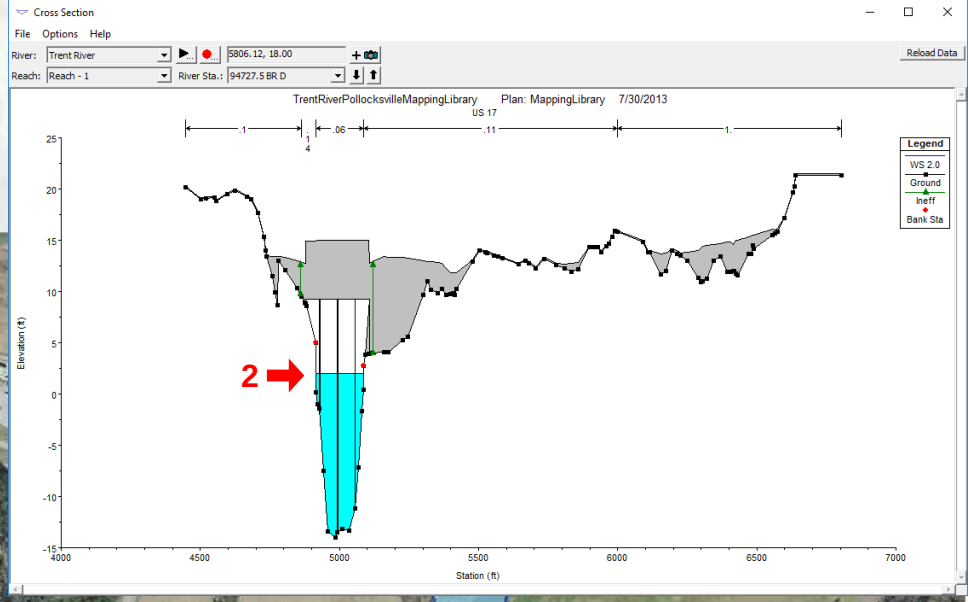

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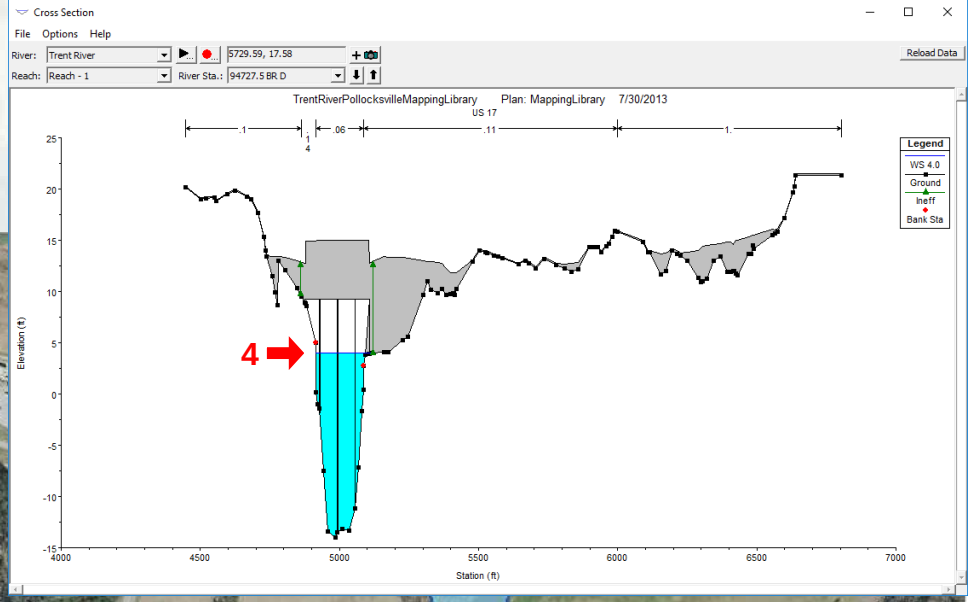

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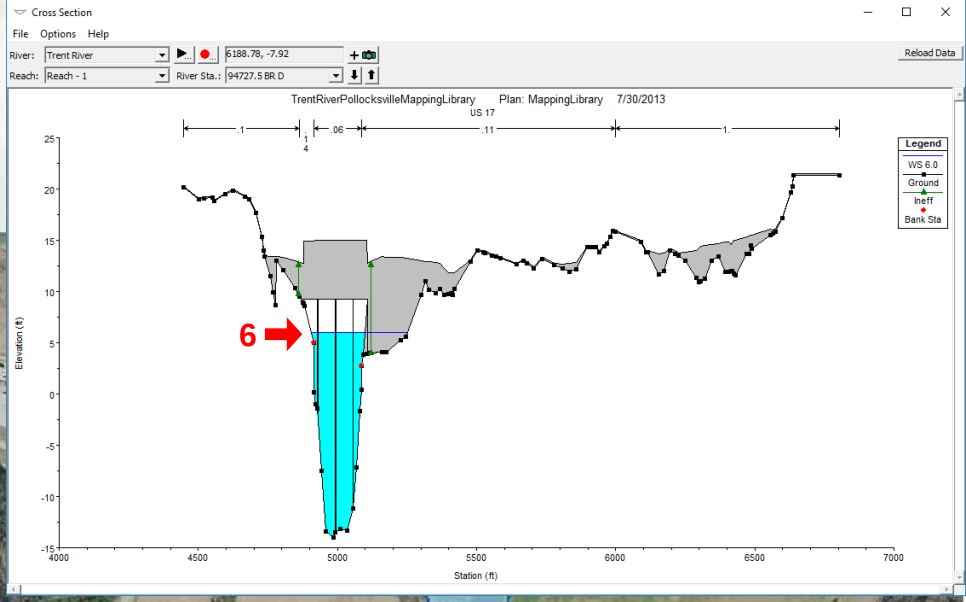

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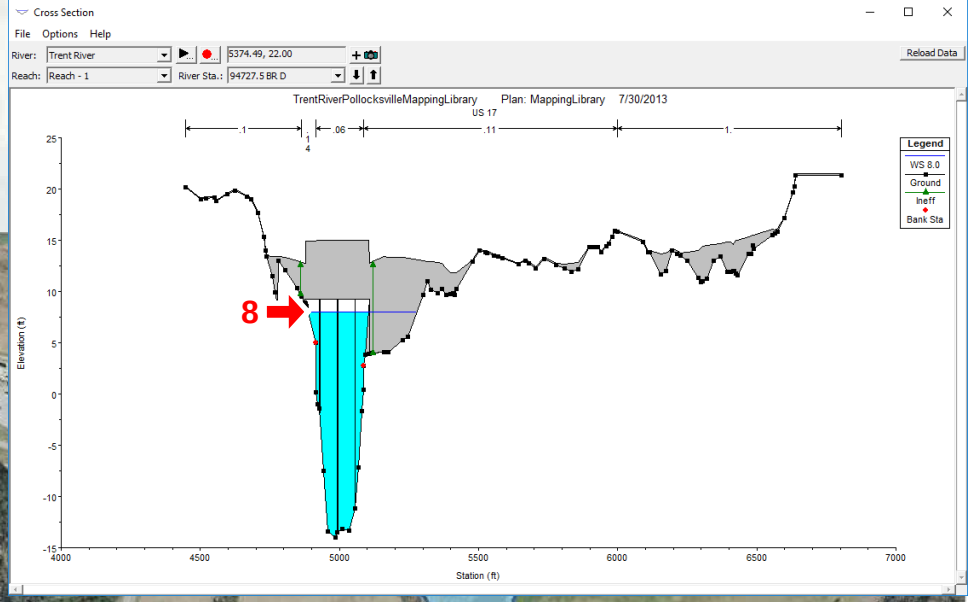

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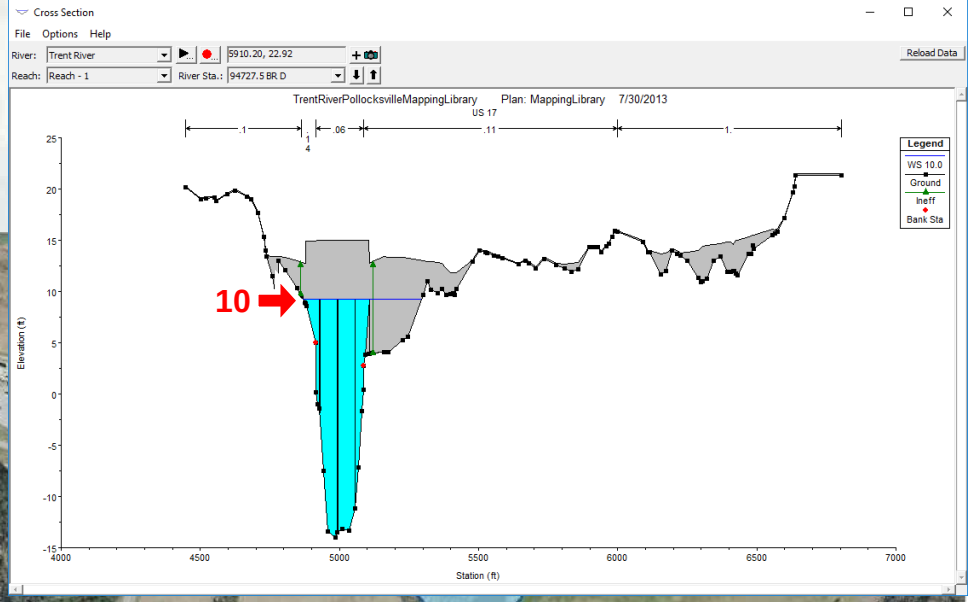

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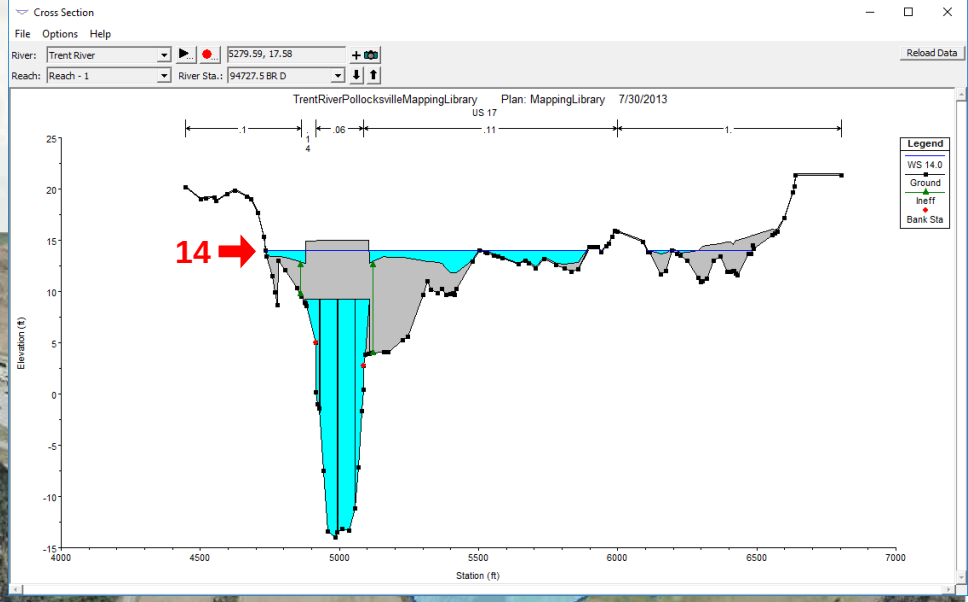

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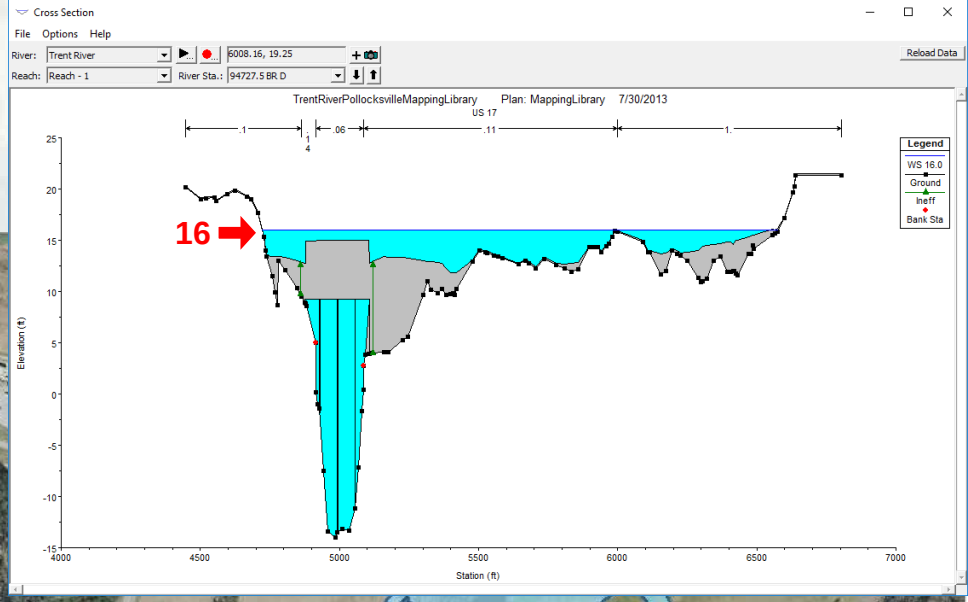


Questions?

US Army Corps of Engineers

Jerry L. Cotter, P.E.

Chief Water Resources

U.S. Army Corps of Engineers

Fort Worth District (SWF)

819 Taylor Street

Fort Worth, TX 76102

(817) 886-1549 TEL

(817) 454-1290 CEL

Jerry.L.Cotter@usace.army.mil

TEXPRESS LANES EDUCATION CAMPAIGN

Amanda Wilson, AICP

Surface Transportation Technical Committee

January 27, 2017

CAMPAIGN OVERVIEW

Coordination of Regional Transportation Agencies

Messaging and Talking Points

Communications Plan Elements

Next Steps

REGIONAL COORDINATION

RTC Workshop Held January 2016

Transportation Agency PIOs Met Through 2016

Communications Plan and Messaging Developed

Collateral Materials Produced

MESSAGING THEMES

Benefits of TEXpress Lanes

Real-world User Testimonials

Educational Components

- How To Use TEXpress Lanes
- Why TEXpress Lanes Have Been Used
- System of TEXpress Lanes, Discuss Projects Separately

Use of Analogies and Humor

TALKING POINTS

It's all About Options for Drivers Who Want a More Reliable Commute

Drivers can Choose to Pay a Toll for a Reliable Trip with Predictable Travel Experience

TEXpress Lanes Lower the Stress of Commuting

Using TEXpress Lanes Produces Far-reaching Benefits

TALKING POINTS

TEXpress Lanes are Easy to Use

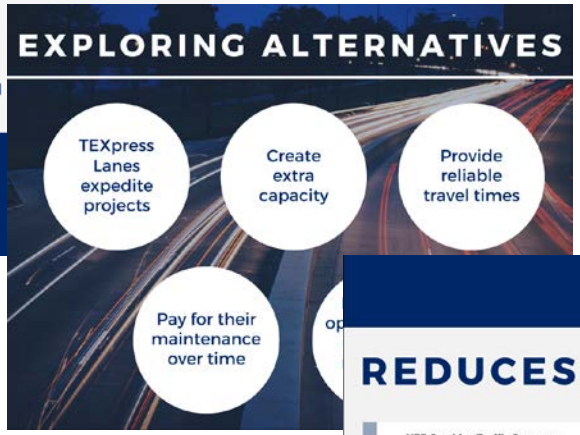
TollTag, TxTag or EZ Tag Customers and Carpoolers get the Lowest Toll Rates

Payment for Driving on TEXpress Lanes is Easy, Too

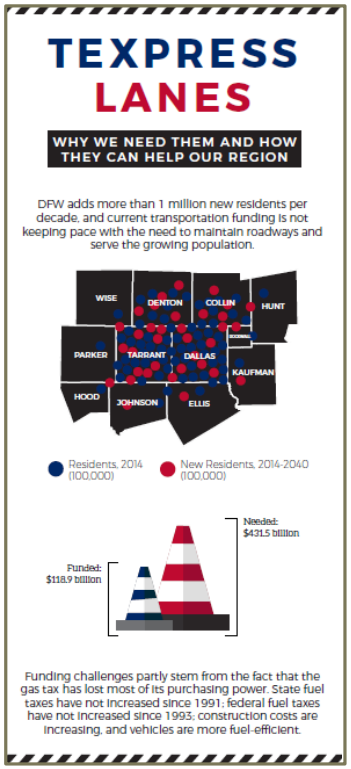
Corridors with TEXpress Lanes Have Been Improved or Completely Rebuilt

COMMUNICATIONS PLAN ELEMENTS

FOCUS ON STAKEHOLDERS



- Presentation
- Pocket Card
- White Paper
- Economic Development
- Myths and Facts



COMMUNICATIONS PLAN ELEMENTS

FOCUS ON GENERAL PUBLIC

Real World Testimonials

Social Media Messages

Short Articles

Humorous Videos

Educational Elements

Direct to **www.TEXpressLanes.com**

NEXT STEPS

Finalize Communications Plan Elements

Provide RTC Members with Online Toolkit for Presentations and Meetings with Stakeholders

Work with Partners to Distribute General Public Elements

Proactively Schedule Opportunities to Distribute the Information to the Community

Fiscal Year 2017
Federal Highway Administration
10 Year Preliminary Engineering Audit

Surface Transportation
Technical Committee
January 27, 2016

BACKGROUND

- Federal Highway Administration (FHWA) audits projects with federal funding for the preliminary engineering (PE) phase to ensure timely implementation.
- Once federal funding is obligated:
  - If not advanced to another phase within 10 years, the State and/or implementing agency will have to repay FHWA for any PE expenditures to date.
  - Time extensions may be requested for extenuating circumstances.
- The PE audit is independent of the federal inactive projects review effort.

PE AUDIT SUMMARY

- 10 projects in the region are subject to the audit.
- The projects are available in Electronic Items 7.1 and 7.2.

TOTAL PROJECTS SUBJECT TO PE AUDIT	10
PROJECTS SET TO LET IN FY 2017	6
PROJECTS AT MOST RISK OF LOSING FUNDING	4
PE OBLIGATIONS ON RTC-SELECTED PROJECTS	$3,516,744
PE OBLIGATIONS ON TxDOT-SELECTED PROJECTS	$2,170,000
TOTAL PE OBLIGATIONS	$5,686,744

ACTIONS TO DATE

- Texas Department of Transportation (TxDOT) district staff has reached out to the local entities to gather the details necessary to justify a time extension.
- North Central Texas Council of Governments (NCTCOG) staff is also working with implementing agencies through the MPO Milestone Policy Effort.
  - Approved by Regional Transportation Council (RTC) on April 14, 2016
  - Agencies with projects selected for RTC funding 10 or more years ago will be subject to cancellation.
  - Intent is to avoid RTC-selected projects on these types of lists (i.e., PE Audit or FHWA Inactive Projects)
- NCTOG will continue to track these projects through the MPO Milestone Policy tracking effort.

IS YOUR PROJECT ON THE LIST?

- If an agency's project is on the PE Audit list:
  - Agencies need to advance project to the next phase of project delivery by September 30, 2017 (end of FY 2017) or as soon as possible
  - Show substantial progress to hopefully get an extension from FHWA
  - Coordinate actively with TxDOT and NCTCOG on project progress.

CONSEQUENCES OF PE AUDIT

- If the next phase is not initiated in time and an extension is not granted:
  - Obligated funds must be paid back to the federal government.
  - Agencies need to be prepared to remit funds to TxDOT for any expended funds.
- PE funds lost in the region during the FY 2016 audit totaled $1,661,800

HOW DO YOU KEEP YOUR PROJECT OFF THE PE AUDIT LIST?

- Project schedules need to be realistic and achievable when established.
- Identify actions to help avoid missing key steps in the project delivery process that can impact the project timeline (e.g., coordinate with TxDOT regularly)
- Agencies must be sure to submit invoices to TxDOT for reimbursement on a regular and timely schedule.
- Agencies can coordinate with TxDOT and NCTCOG for project delivery guidance and assistance.
- Communicate project schedules frequently with TxDOT and NCTCOG staff.

WHAT ARE WE DOING TO HELP YOU?

- We are alerting agencies if they make it onto the list to enable agencies to be proactive
- NCTCOG staff monitors project delivery and status on a regular basis.
- Through initiatives like the MPO Milestone effort, NCTCOG hopes to identify projects that may be subject to the PE Audit before they make it on the FHWA list.

CONTACT/QUESTIONS?

Adam Beckom, AICP
Principal Transportation Planner
Ph: (817) 608-2344
abeckom@nctcog.org

Gregory White
Transportation Planner
Ph: (817) 695-9278
gwhite@nctcog.org

Clean Cities Annual Report and Fleet Recognition

Surface Transportation Technical Committee
Pamela Burns

January 27, 2017

Dallas-Fort Worth
CLEAN CITIES

Metropolitan Transportation Plan Policy Bundle

Voluntary List of Policies

50% Adoption of Relevant Policies to be Eligible for Transportation Development Credits to Help Offset Future Projects

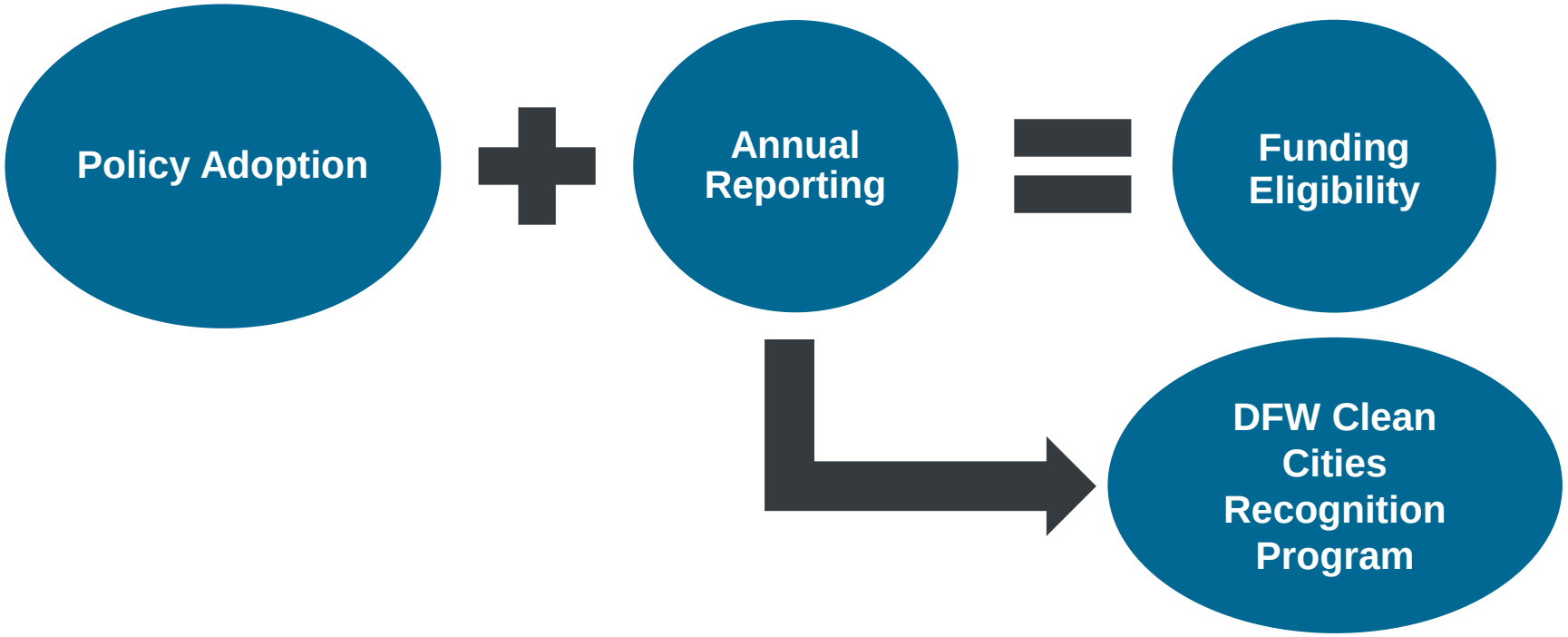
Clean Fleet Policy Applicable for: Cities, Counties, NTTA, School Districts, Transit Agencies, TxDOT

- **Air Quality: Clean Fleets**
- **Air Quality: Clean Construction**
- **Air Quality: Idling Restrictions**

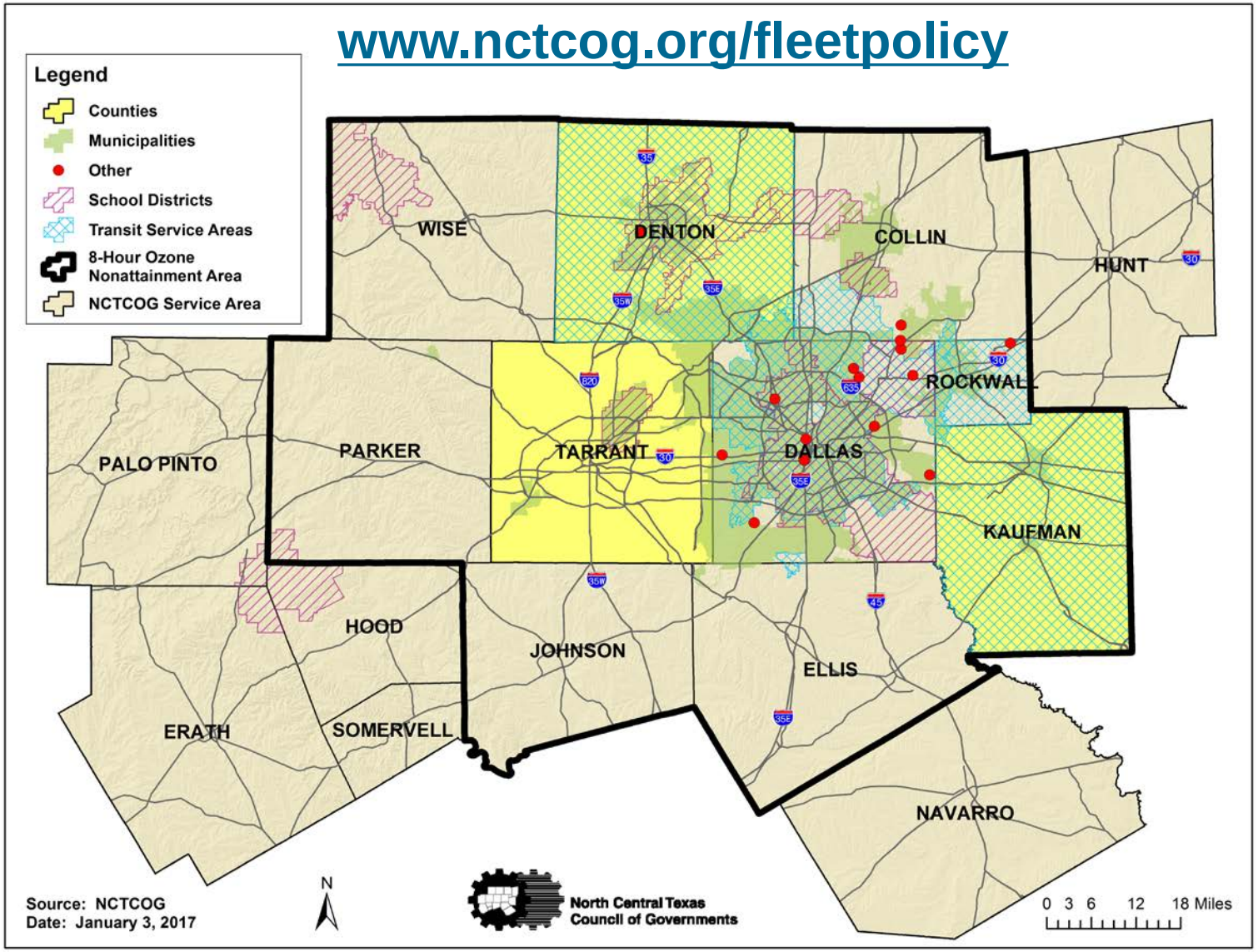
www.nctcog.org/policybundle

Clean Fleet Policy Implications

RTC Funding Eligibility



Clean Fleet Policy Adoptees



DFW Clean Cities Annual Report

DOE Goal to Save 2.5 Billion Gallons of Petroleum Per Year by 2020

DFWCC Goal to Increase Petroleum Reduction by 15% Every Year

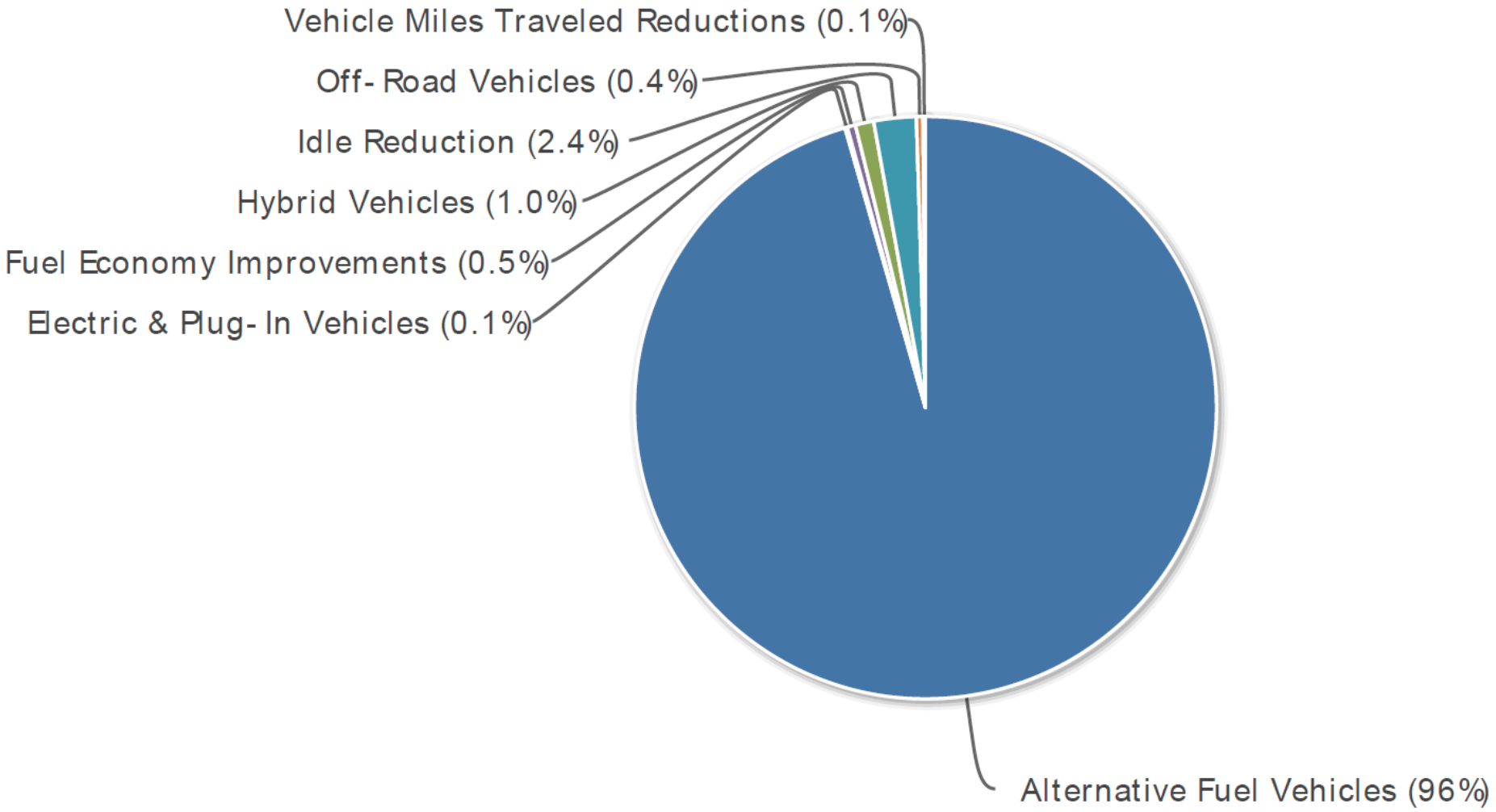
Combined Effort with Clean Fleet Policy

Report due March 1 Annually

www.dfwcleancities.org/annualreport

2015 Petroleum Reduction

23,255,172 gallons



Policy Goals and Recognition Criteria

Emissions Reductions

- Anti-idling Policy
- Training and Orientation
- On-board Technology
- Vehicle Prioritization

Fuel Reduction

- Eco-driving Policy
- Right-sizing Vehicles to Operation
- Alternative Fuel/Hybrid Vehicles

Partnership

- Promotion of Clean Fleet Policy/DFWCC to Partners
- Active in DFWCC Activities
- Reduce Environmental Impacts
- Annual Reporting

Familiarity with Air Quality and Petroleum Reduction Goals

- New Hire Orientation
- Driver Pledges
- Attend NCTCOG Trainings
- Performance and Recognition
- Shared Resources

Outstanding Fleet Award Winners

Silver Awards

City of Euless

City of Carrollton

Town of Addison

Bronze Awards

City of Coppell

City of Fort Worth

City of Grapevine

City of Richardson

City of Rockwall

City of Southlake

Dallas Area Rapid Transit

Denton ISD

Town of Flower Mound

Outstanding Fleet

Dallas-Fort Worth CLEAN CITIES

Contact Information

Pamela Burns
Communications Supervisor
pburns@nctcog.org
817-704-2510

Dallas-Fort Worth
CLEAN CITIES

Lori Clark
Principal Transportation Planner
lclark@nnctcog.org
817-695-9232

Kenny Bergstrom
Communications Specialist
kbergstrom@nctcog.org
817-704-5643

People Mover Recommendations