

Memorandum



CITY OF DALLAS

DATE 25 April 2014

TO The Honorable Members of the Transportation and Trinity River Project Committee:
Vonciel Jones Hill (Chair), Lee Kleinman (Vice Chair), Deputy Mayor Pro Tem
Monica Alonzo, Mayor Pro Tem Tennell Atkins, Sandy Greyson, Sheffie Kadane

SUBJECT Update on Dallas Floodway
Environmental Impact Statement (EIS)

On Monday, 28 April 2014, you will be briefed on the Dallas Floodway Project Draft Feasibility Report and Environmental Impact Statement

Please let me know if you have any questions or need additional information.

A handwritten signature in black ink, appearing to read 'Jill Jordan'.

Jill A. Jordan, P.E.
Assistant City Manager



THE TRINITY
DALLAS

C: A.C. Gonzalez, City Manager
Warren M.S. Ernst, City Attorney
Craig D. Kinton, City Auditor
Rosa A. Rios, City Secretary
Daniel F. Solis, Administrative Judge
Ryan S. Evans, (I) First Assistant City Manager
Forest E. Turner, Assistant City Manager

Joey Zapata, Assistant City Manager
Charles M. Cato, (I) Assistant City Manager
Theresa O'Donnell, (I) Assistant City Manager
Jeanne Chipperfield, Chief Financial Officer
Shawn Williams, (I) Public Information Officer
Elsa Cantu, Assistant to the City Manager – Mayor & Council

UPDATE ON DALLAS FLOODWAY

ENVIRONMENTAL IMPACT STATEMENT [“EIS”]

Transportation and Trinity River
Project Committee

Rob Newman

Director, Trinity River Corridor Project,
Fort Worth District

28 April 2014

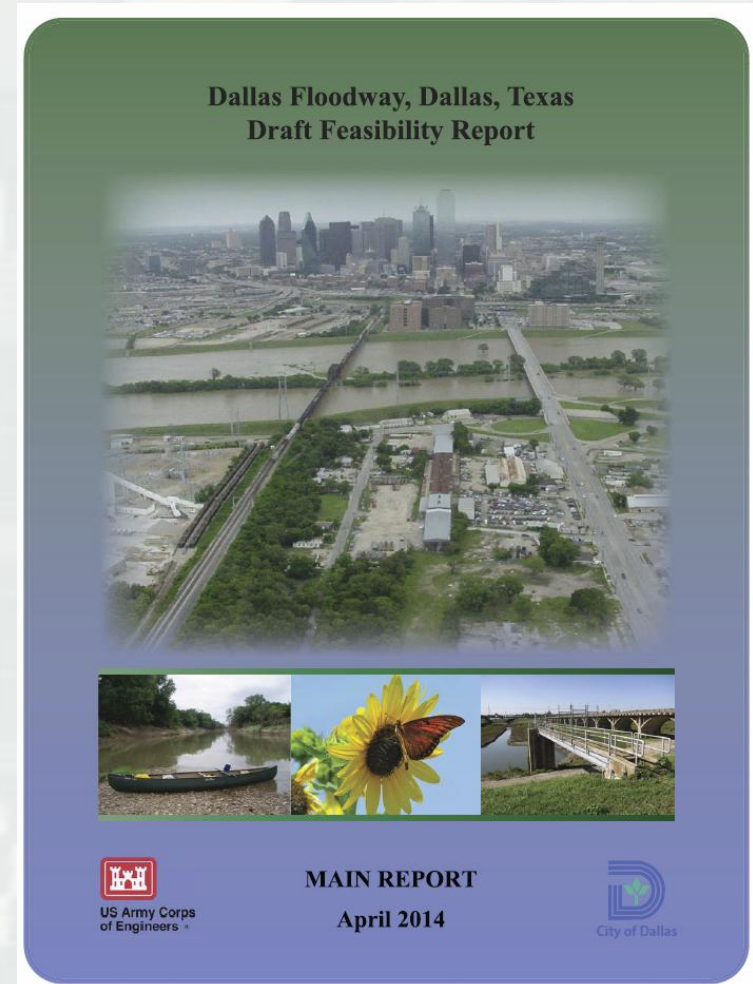


US Army Corps of Engineers
BUILDING STRONG



Purpose of Today's Briefing

- Update the Transportation and Trinity River Committee on the progress of the project since the 21 August 2013 City Council
- Outline steps to sign a Record of Decision ["ROD"] on the Dallas Floodway Project

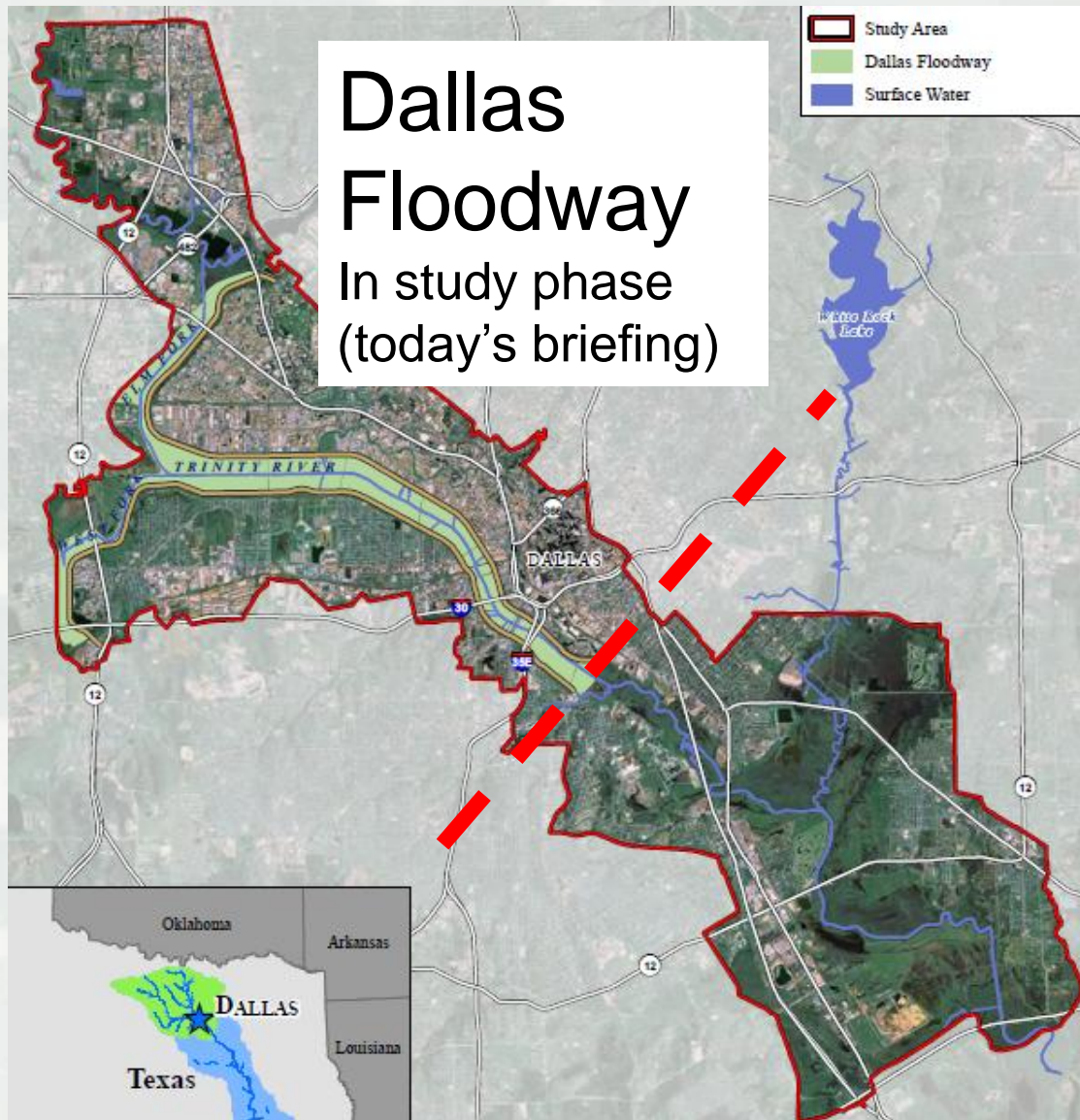


Outline of Today's Briefing

- Review Flood Risk Management Plan
- Results Comprehensive Analysis
- Overview Recommended Plan for Dallas Floodway Project
- Path Forward to the signed ROD



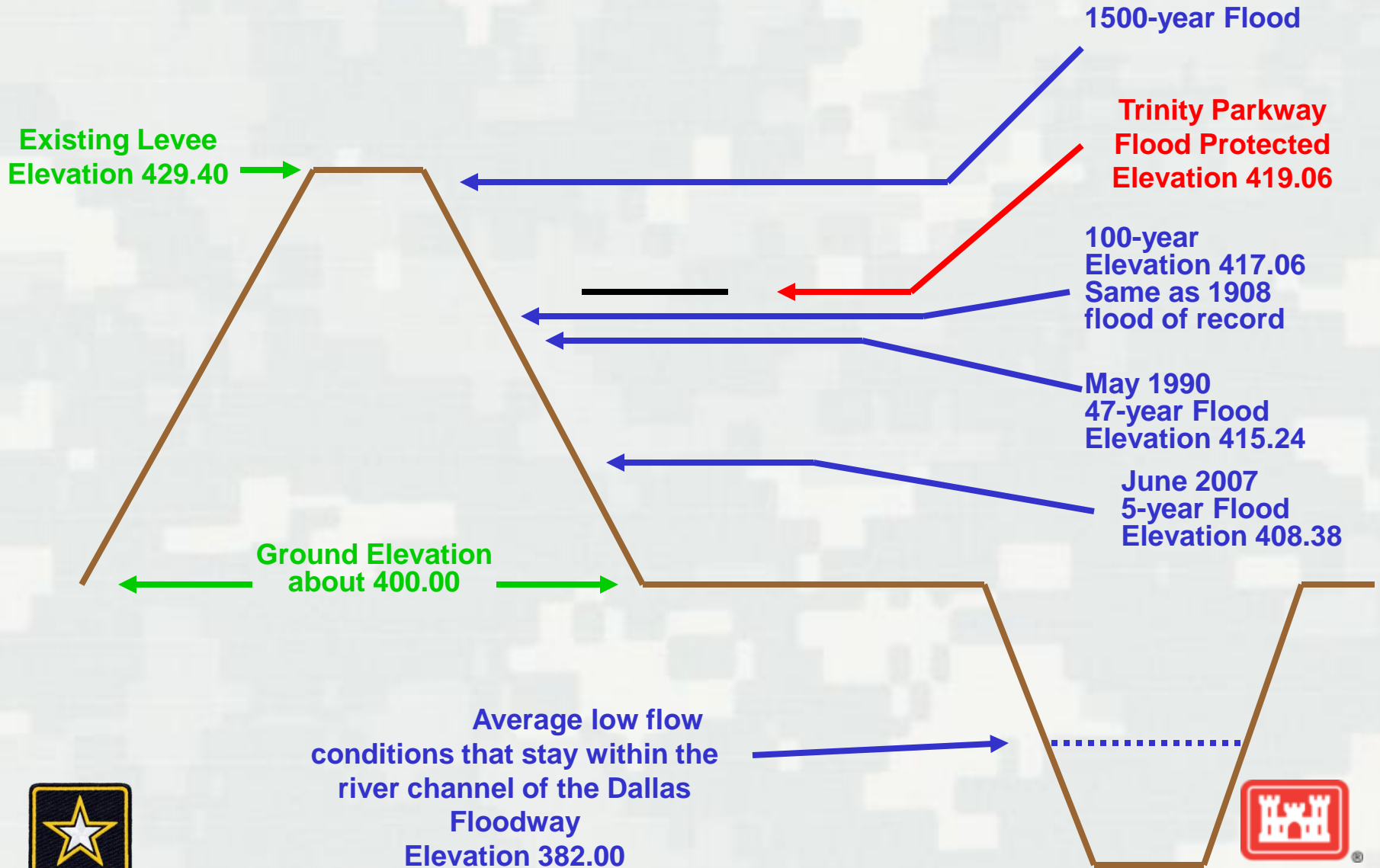
Two (2) Federal Projects in the Floodway



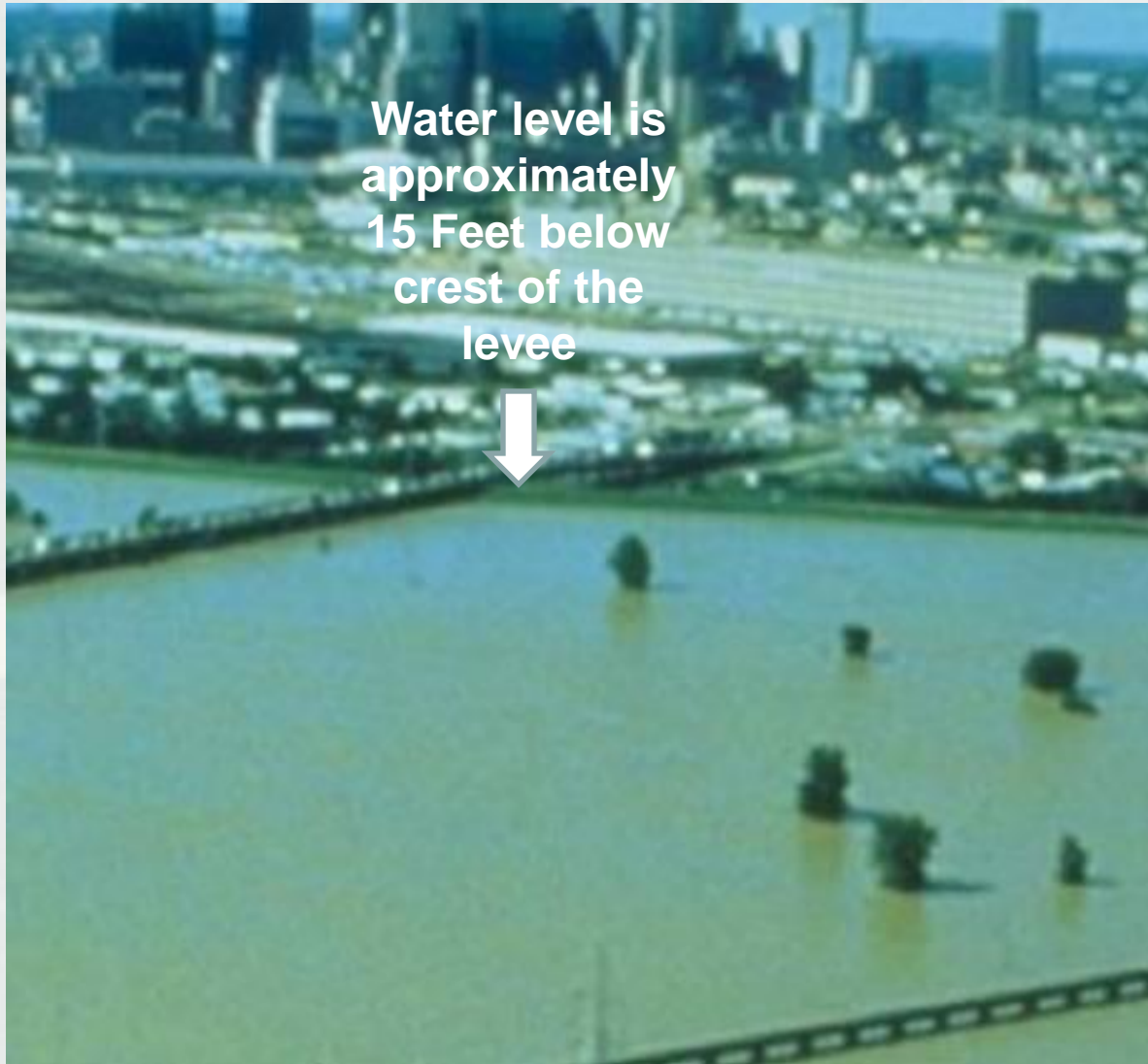
Dallas
Floodway
Extension
In construction
phase



Levee Section at Commerce Water Surface Elevations



1990 Flood Event



Water level is
approximately
15 Feet below
crest of the
levee



Review of the Flood Risk Management Plan



Review of Flood Risk Management Plan

- United States Army Corps of Engineers [“Corps”] and City of Dallas [“City”] utilized an integrated approach for identifying a Flood Risk Management Plan for improving the levee system
- Utilized results from risk assessment and economic analyses
- Analyzed both structural and non-structural measures



Review of Flood Risk Management Plan

Non-structural measures initially considered by the Corps

- Flood Forecasting and Warning
- Floodplain Management
- Flood Proofing
- Raising Structures in Place
- Structure Relocation
- Permanent Evacuation



Flood Risk Management Plan

Structural measures initially considered by the Corps

- Channel widening
- Vegetation removal
- Floodwalls
- Levee armoring *[i.e. covering the levee with concrete]*
- Seepage cut-off walls as flood risk management
- Controlled overtopping with levee raises *[i.e. creating a known point for the flood waters to spill over the levee into the protected side]*



Flood Risk Management

Tentatively Selected Plan Identified

Three (3) recommended actions:

- About \$10 million dollars total
 - AT&SF Bridge modifications/partial removal
 - Raise the levees to contain a 277,000 cubic feet per second [“cuffs”] flow
 - This flow equates to a 2,500-year flood event
 - Improvements to the City’s Emergency Action Plan



Flood Risk Management Plan

Modification of the AT&SF Bridge



- Retain a 350-foot section of historic wooden trestle associated with the Santa Fe Trestle Trail



Flood Risk Management Plan

Modification of the AT&SF Bridge



- Remove embankments and remaining narrowly spaced wooden piers that block flood flows



Comprehensive Analysis



Comprehensive Analysis

The Water Resources Development Act in 2007 [“WRDA 2007”] directed the Corps to ensure that the Balanced Vision Plan and Interior Drainage Plan are “technically sound” and “environmentally acceptable”

- Technical soundness is determined by completing comprehensive analysis of hydrology and hydraulics* [“H&H”], geotechnical, and civil design
- Environmental acceptability is determined by completing National Environmental Policy Act [“NEPA”] process



**H&H analysis determines the amount of runoff, depth, extent, and velocity of the flood waters coming down the river*



Comprehensive Analysis

Comprehensive Analysis compared three (3) alternatives:

- **Alternative 1 (No-Action):** No additional projects except those already approved for construction (Horseshoe, Sylvan, Pavaho Wetlands, East Bank/West Bank Interceptor, Baker Pump Station, Pavaho Pump Station, Santa Fe Trestle Trail, and Dallas Water Utility Pipelines)
- **Alternative 2:** Projects to be built including the Balanced Vision Plan [“BVP”] projects, Interior Drainage Plan [“IDP”] projects, and Trinity Parkway 3C
- **Alternative 3:** Alternative 2 with slight variations minus the Trinity Parkway 3C



Comprehensive Analysis Results

Alternative 1 (No Action)

- H&H

- Meets 1988 Trinity River Environmental Impact Record of Decision [“TREIS ROD”] Criteria

- Geotechnical

- No impacts

- Civil Design

- No impacts

- Environmental

- No additional impacts



Comprehensive Analysis Results

Alternative 2

H&H

- While it does not meet TREIS ROD Criteria, the Corps is proposing a variance because deviations are insignificant
 - With removal of the AT&SF bridge the floodway becomes more efficient in conveying floodwaters
 - Potential for water surface rise of about one inch downstream of the floodway for the 100-year and SPF flood events due to valley storage loss



Comprehensive Analysis Results

Alternative 2

- Geotechnical

- Trinity Parkway would add width to the base of the levee, thereby strengthening the levee from potential internal erosion
- Cut-off walls maybe required along the portions of the levees where the river is relocated closer to the levees
- Lakes depth, with the proposed clay liner, does not substantially increase seepage risk

- Civil Design

- Minor overlap of designs for BVP, IDP and local features occur, but can be corrected during future design with minimal effort

- Environmental

- Net increase in wetland and river ecosystem habitat quality



Comprehensive Analysis Results

Alternative 3

•H&H

- While it does not meet TREIS ROD Criteria, the Corps is proposing a variance because deviations are insignificant
 - With removal of the AT&SF bridge the floodway becomes more efficient in conveying floodwater
 - Potential for water surface rise of about one inch downstream of the floodway for the 100-year and SPF flood events due to valley storage loss

•Geotechnical

- Same as Alternative 2 improvements to levee, but without full Parkway benching

•Civil Design

- Same as Alternative 2 with more recreation features

• Environmental

- Net increase in wetland and river ecosystem habitat quality



Comprehensive Analysis

Conclusions

- Trinity Parkway, BVP and IDP features have been determined individually to be technically sound at current level of design
- Potential negative impacts related to deviations from 1988 ROD criteria are insignificant; a variance to ROD is currently proposed
- With slight modifications of the expected design refinements, all features would function on a comprehensive system wide level from a Corps Civil Works perspective



Comprehensive Analysis

Environmental Acceptability

- Final Determination is not made until Corps Headquarters signs the ROD
- Before the ROD is signed, Corps solicits public and agency comments
- Granting of Section 404/408 Permits will follow signing of ROD
- Section 404/408 Permits gives City approval for construction of the project



Recommended Plan



Recommended Plan

- WRDA 2007, Section 5141, authorized \$459 million total budget for Recommended Plan
 - Includes cost share of 65% federal and 35% non-federal
 - The city can spend a portion of its cost share portion before the Corps begins spending money



Recommended Plan

- The cost share portion of the project cannot exceed the WRDA authorization of \$459 million plus inflation
 - The cost share portion includes flood risk reduction and ecosystem restoration
- Remaining BVP and IDP projects will be constructed by the City through the Section 408 process
- Accommodates Trinity Parkway construction by other entity (Alternative 2)



Recommended Plan (Alt 2)

Flood Risk Management

•Levee

- Raise levee low spots along 9.3 miles of levees to meet 277K flow
- Low spots to be filled from borrow pit of future site of West Dallas Lake
- Modify AT&SF Bridge
- 3:1 to 4:1 slopes may be funded by City

•Interior Drainage

- Baker Pump Station
- Able Pump Station
- Hampton Pump Station



Recommended Plan (Alt 2)

Ecosystem Restoration

- **River Relocation**

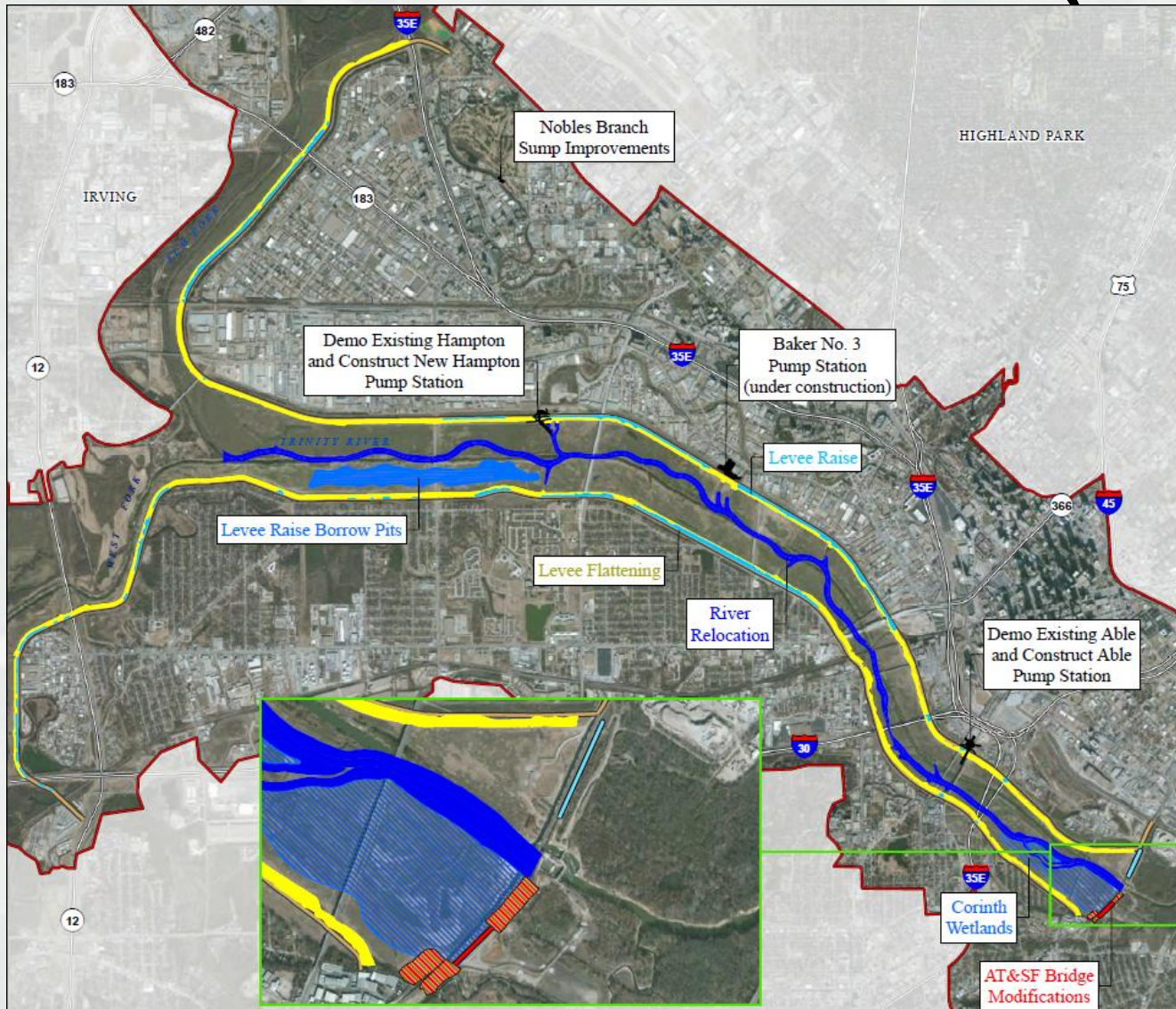
- Adds meanders back to river
- Builds habitat pools to improve aquatic diversity

- **Corinth Wetlands**

- Expands existing wetland; Corps participates in excavation and plantings
- City may construct recreational features such as boardwalks and trails



Recommended Federal Plan (Alt 2)



Recommended Plan (Alt 2)

Cost Sharing Summary

- Total Cost: \$529.1 million
- Federal Cost: \$343.9 million
- Non-Federal Share: \$185.2 million
 - 5% cash on Flood Risk Management: \$10.4 million
 - Estimated Credit: \$115.5 million
 - Lands, Easements, Rights of Ways and Relocations: \$59.3 million
- Bottom line for City: $\$10.4 + \$59.3 = \$69.7$ million still needed



Path Forward



Next Milestones

- 45-day public comment period started 18 April 2014
- Corps Dallas Floodway Public Hearing on Draft EIS
 - 8 May 2014, L1FN Auditorium, Dallas City Hall
 - Open house at 5:30 p.m., hearing begins at 6 p.m.
- Complete drafting Final EIS and Feasibility Report for Dallas Floodway Project and signing of Record of Decision, by Assistant Secretary of Army for Civil Works, anticipated December 2014
- Once the project is approved, Federal funding will require Federal Appropriations



Questions/Comments?

