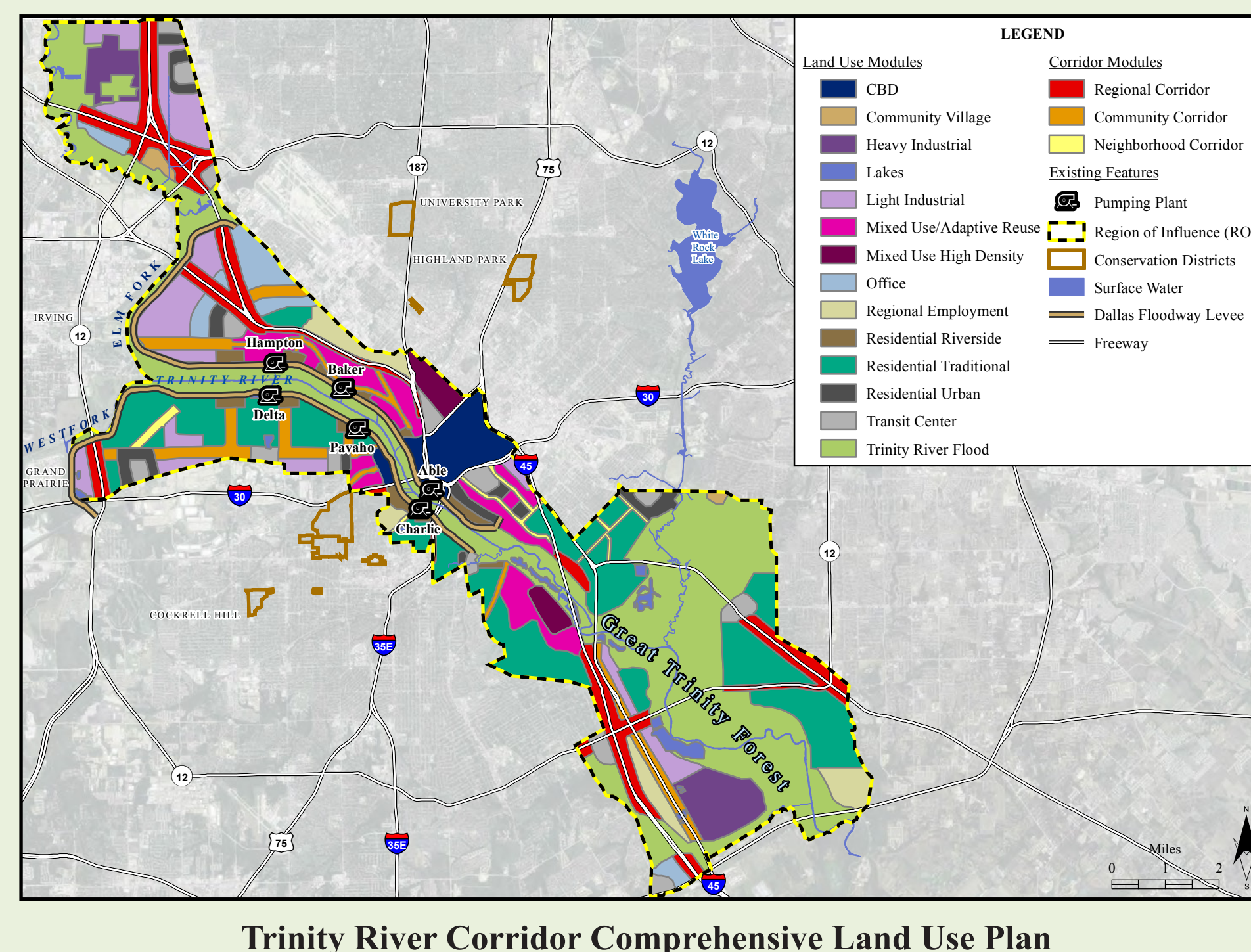


Environmental Consequences: Land Use, Geology and Soils, Hydrology and Hydraulics, and Water Resources

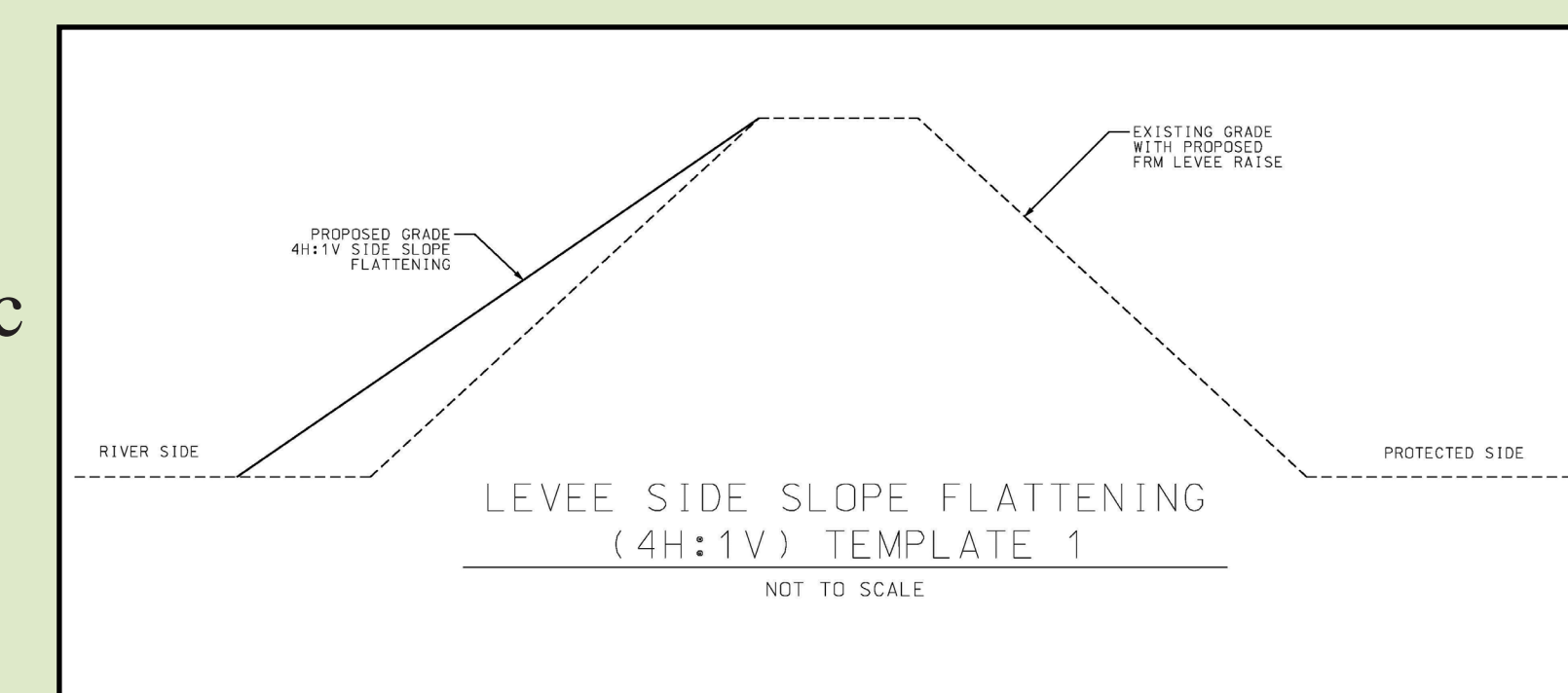
LAND USE

- ◆ **Impact Summary:**
Beneficial impacts
- ◆ The Proposed Action would be consistent with current zoning and the Trinity River Corridor Comprehensive Land Use Plan.



GEOLOGY AND SOILS

- ◆ **Impact Summary:**
Less than significant impacts
- ◆ Proposed flood risk management elements would have less erosion potential and be more stable, thus reducing risk associated with geologic hazards (e.g., slumps and slides).
- ◆ Proposed recreation and landscaping features would further stabilize soils.



HYDROLOGY AND HYDRAULICS

- ◆ **Impact Summary:**
Less than significant impacts
- ◆ The plan with the highest performing flood risk and life safety benefits for the City of Dallas would be achieved.
- ◆ The Proposed Action would not meet the Trinity River Environmental Impact Statement criteria for the 100-year water surface or valley storage, but potential negative impacts are insignificant, and a variance to the criteria is recommended.
- ◆ Water surface elevations of the 100-year flood would be contained by the levees.

Frequency Flows at Dallas for Existing and Future Conditions

Location	100-Year Flood Event Water Surface Elevation (feet)			Standard Project Flood Event Water Surface Elevation (feet)		
	Existing Condition	Proposed Action	Difference	Existing Condition	Proposed Action	Difference
West & Elm Fork Confluence	423.27	423.09	-0.18	435.43	435.01	-0.42
Hampton Bridge	420.32	419.91	-0.41	432.93	432.31	-0.62
Commerce Bridge	416.83	416.64	-0.19	429.04	428.57	-0.47
DART Rail Bridge	413.91	413.63	-0.28	425.42	424.51	-0.91

WATER RESOURCES

- ◆ **Impact Summary:**
Significant adverse impacts during construction; Beneficial impacts during operation
- ◆ Direct impacts to jurisdictional wetlands and waters of the U.S. would be offset by Balanced Vision Plan (BVP) features.
- ◆ The Proposed Action would result in a net gain of 1,735 linear feet for the Trinity River; a net gain of 240 acres of other waters; and a net gain of 12 acres of wetlands.

Jurisdictional Wetlands and Other Waters of the U.S. in the Study Area under the Proposed Action

Project Component	Trinity River (linear feet/acres)	Other Waters (acres)	Wetlands (acres)
Project Impacts			
BVP Study FRM	-	0.70	0.94
BVP Study Ecosystem	38,232/134.2	21.82	146.96
BVP Study Recreation	-	0.25	18.21
Interior Drainage Plan Improvements	-	0.06	0.27
Total Impact	38,232/134.2	22.83	166.37
Wetlands or Other Waters Created or Enhanced by the BVP Study			
River Relocation	39,967/209.7	2.99	-
West Dallas Lake	-	122.87	7.07
Urban Lake	-	84.19	2.01
Natural Lake	-	49.45	6.53
Drainage Sumps	-	3.09	-
Other Open Waters	-	0.22	-
Stormwater Management Wetlands	-	-	46.12
Corinth Wetlands	-	-	83.78
Forested Ponds	-	-	9.76
River Terraces	-	-	23.26
Total Created or Enhanced	39,967/209.7	262.81	178.53
Net Gain (Loss)	1,735/75.5	239.98	12.16
Net Functional Gain (Loss)	6,938	N/A	50.35

