

LITTLE BLUE RIVER FLOOD RISK MANAGEMENT/ ECOSYSTEM RESTORATION STUDY

Lee's Summit City Council Meeting
July 8 2025

U.S. Army Corps of Engineers,
Kansas City District



U.S. ARMY

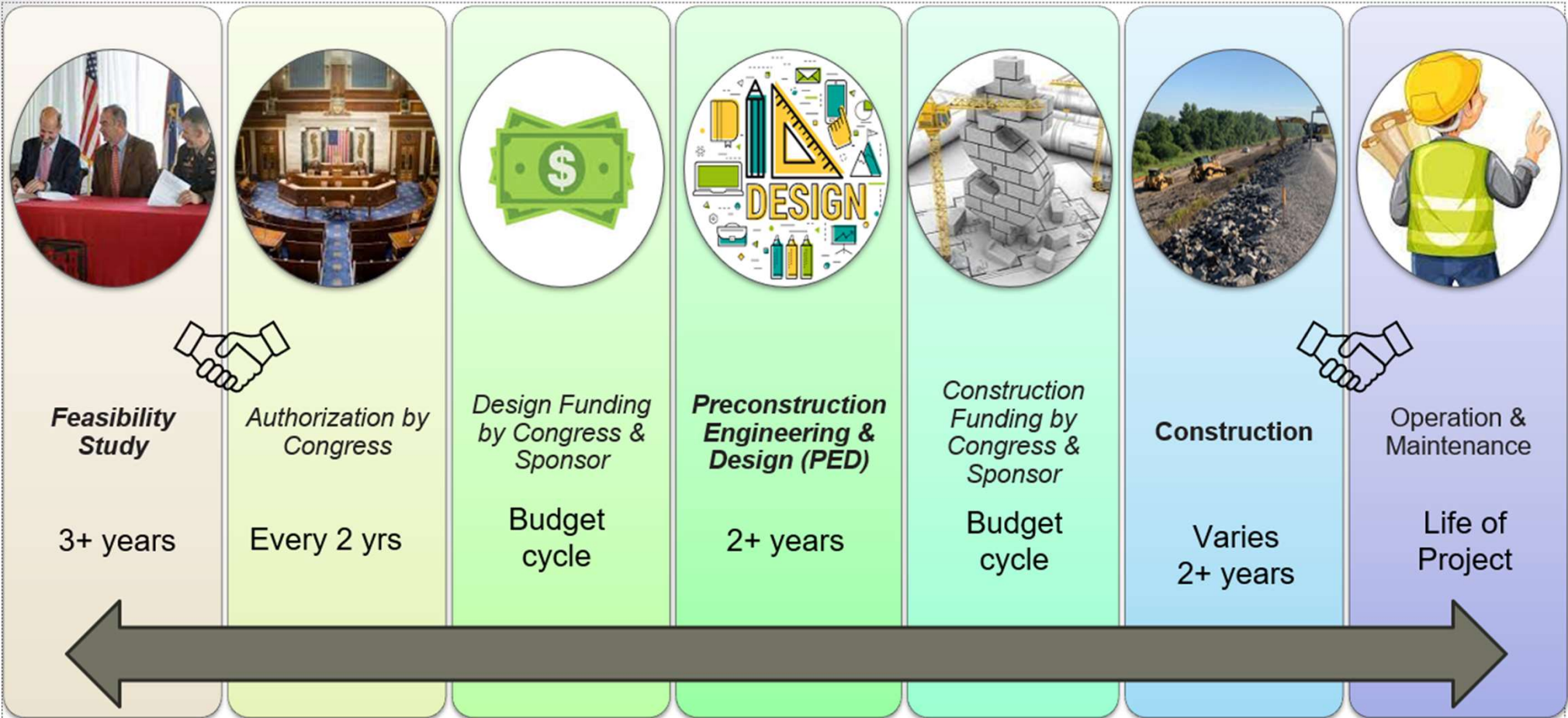


US Army Corps
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USACE PROJECT DEVELOPMENT LIFE CYCLE





WHY IS THIS STUDY NEEDED

Problems in the Basin

Flood Risk Management:

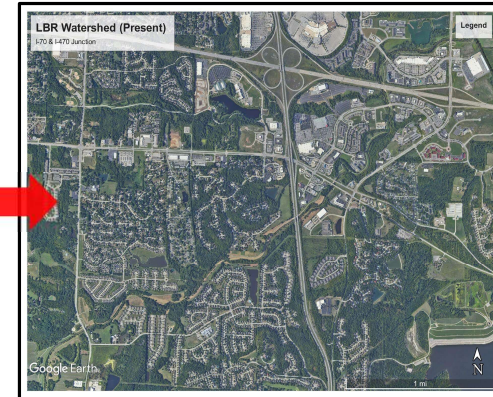
- **Increased development** in the basin since last flood control project.
- Increased population and **value** of infrastructure, structures, properties.
- Increased **flooding** since 1961 (18% increase in 100-year flood).
- Flood **damages** in 1977, 1982, 1990, 2007, 2010, 2017, 2020, 2024.
- 1982 flood of record claimed **4 lives**.
- **Projected > \$1 billion in damages over the next 50 years.**

Ecosystem Degradation:

- Rapid **erosion** threatening the mainstem Little Blue River and public infrastructure.
- Increased **sedimentation** of aquatic habitat.
- **Loss** of habitat connectivity.
- **Decline** in acres of high valued habitat.

Opportunities:

- **Unite to form a basin coalition to identify local interests.**
- Secure Federal and non-Federal **funding**.
- Long-term **security and resiliency** for the basin.



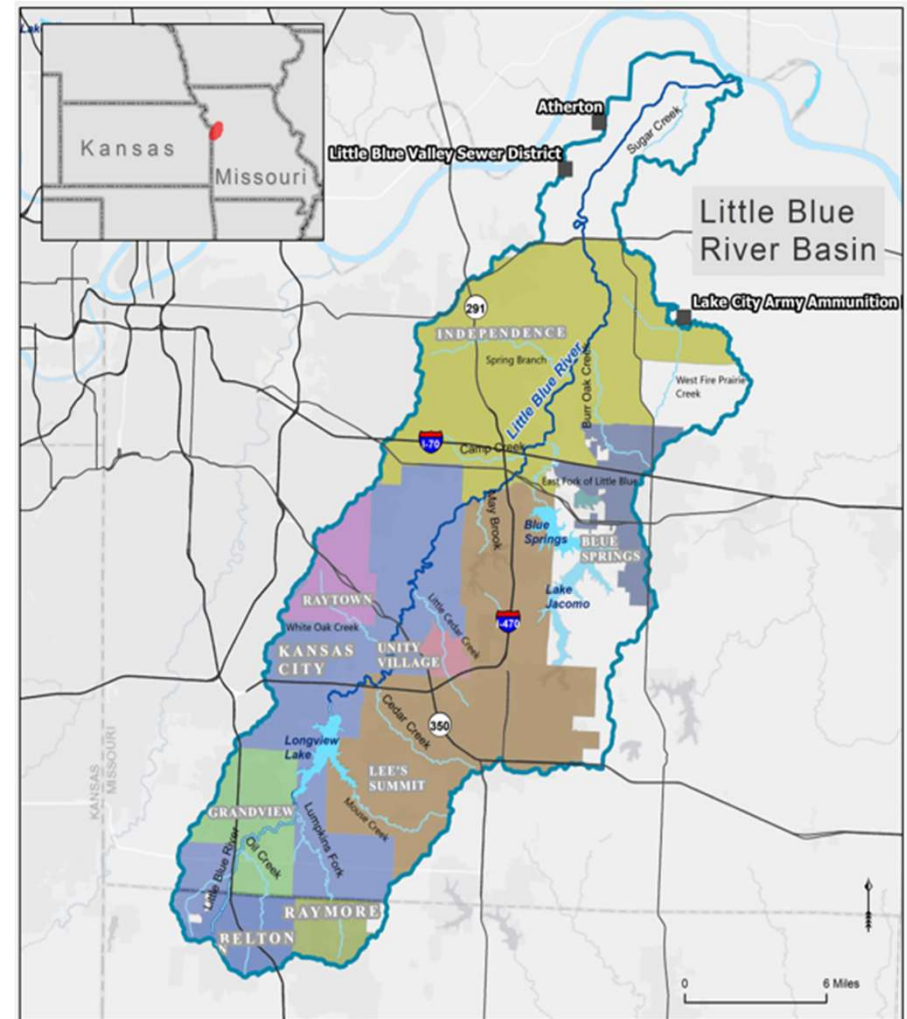


BASIN COALITION

Study Partners:

- Mid-America Regional Council
- U.S. Army Corps of Engineers
- Blue Springs, MO
- Grandview, MO
- Independence, MO
- Jackson County, MO
- Kansas City, MO
- Lee's Summit, MO
- Raytown, MO

*USACE, municipalities, and Jackson County are providing funding for the study.





PREFERRED ALTERNATIVE

REACH 1 – Grandview, MO

Non-Structural Buyouts + Elevations:

- 33 Residential Buyouts
- 20 Residential Elevations
- 10 Commercial Buyouts

Restoration of an old golf course:

- 16.1 acres herbaceous plantings
- 7.9 acres of wetlands



REACH 3 – Lee's Summit, MO

Restoration of riparian corridor:

- 17.2 acres of forest plantings
- 22.5 acres herbaceous plantings
- 2.0 acres of wetlands



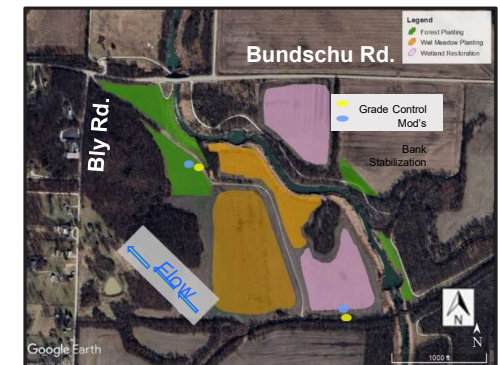
REACH 5 – Little Blue River, Downstream of Longview Lake

Dry Dams 3, 5a, 5b + Meander + Nonstructural

- 183 acres of ponded area
- 2,900 acre-feet ponded volume
- 5 Commercial Buyouts, 25 Residential Elevations

Restoration of riparian corridor, bank stabilization, and connectivity:

- 131.5 acres of forest plantings
- 134.4 acres herbaceous plantings
- 33.2 acres of wetlands
- 9 bank stabilization sites
- 14 grade control structure modifications



*Non-Federal Partners may request a Locally Preferred Plan (LPP) that consists of either additional or lesser features than the Tentatively Selected (TSP) Plan.



REACH 3 - MOUSE / EAGLE CREEK PREFERRED ALTERNATIVE

Reach #3 Ecosystem Restoration

Alternatives

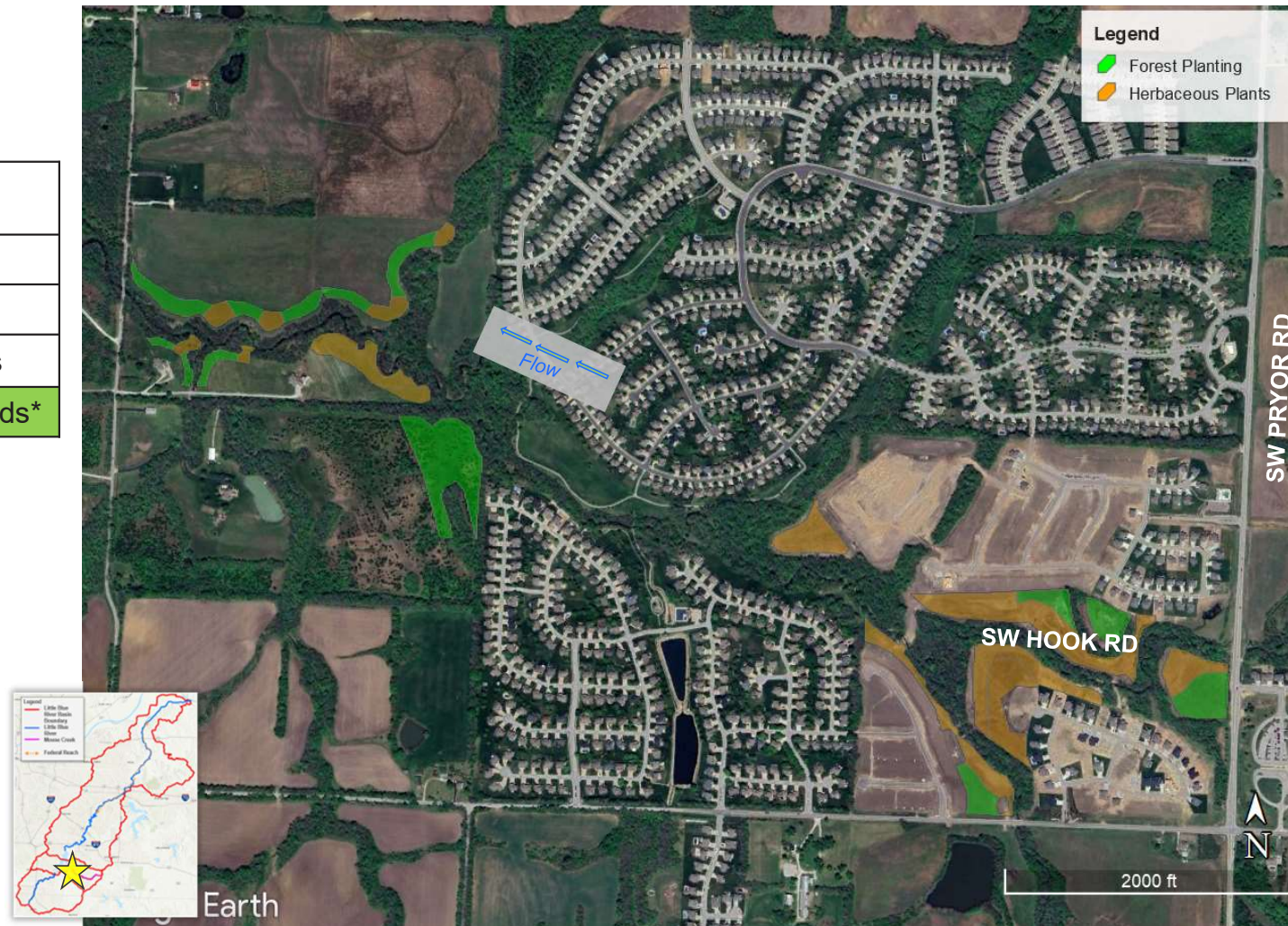
Alt R3-0: No Action
Alt R3-1: Herbaceous Plantings
Alt R3-2: Forest + Herbaceous Plantings
Alt R3-3: Forest + Herbaceous + Wetlands*

*Forest + Herbaceous + Wetlands

Forest – 17.2 acres
Herbaceous – 22.5 acres
Wetlands – 2.0 acres

Real Estate Acquisition:

Land Acquisition Area = 122 acres
Land Acquisition Cost = \$1,500,000





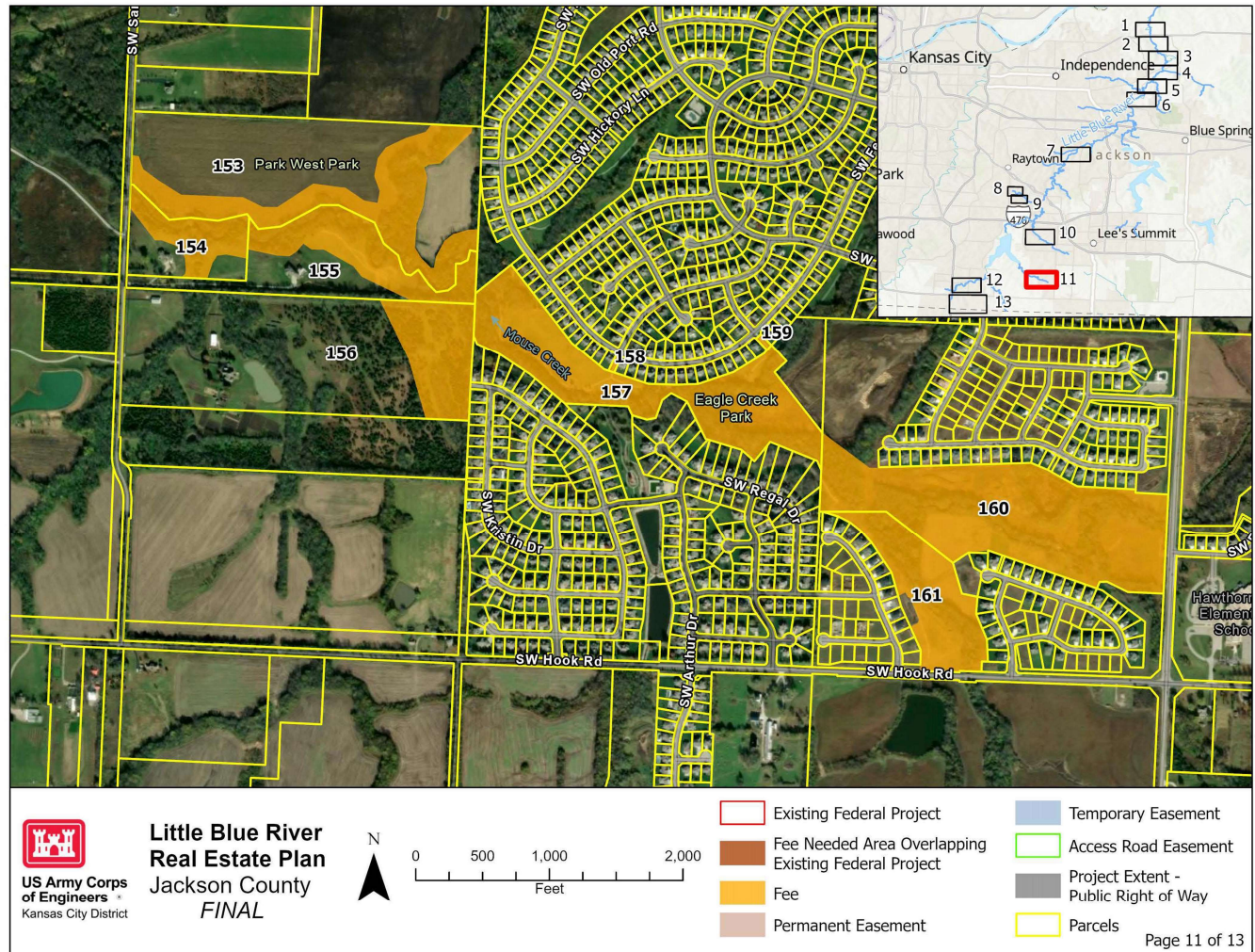
REACH 3 - MOUSE / EAGLE CREEK PREFERRED ALTERNATIVE

Planting = 41.7 acres

Real Estate = 122 acres

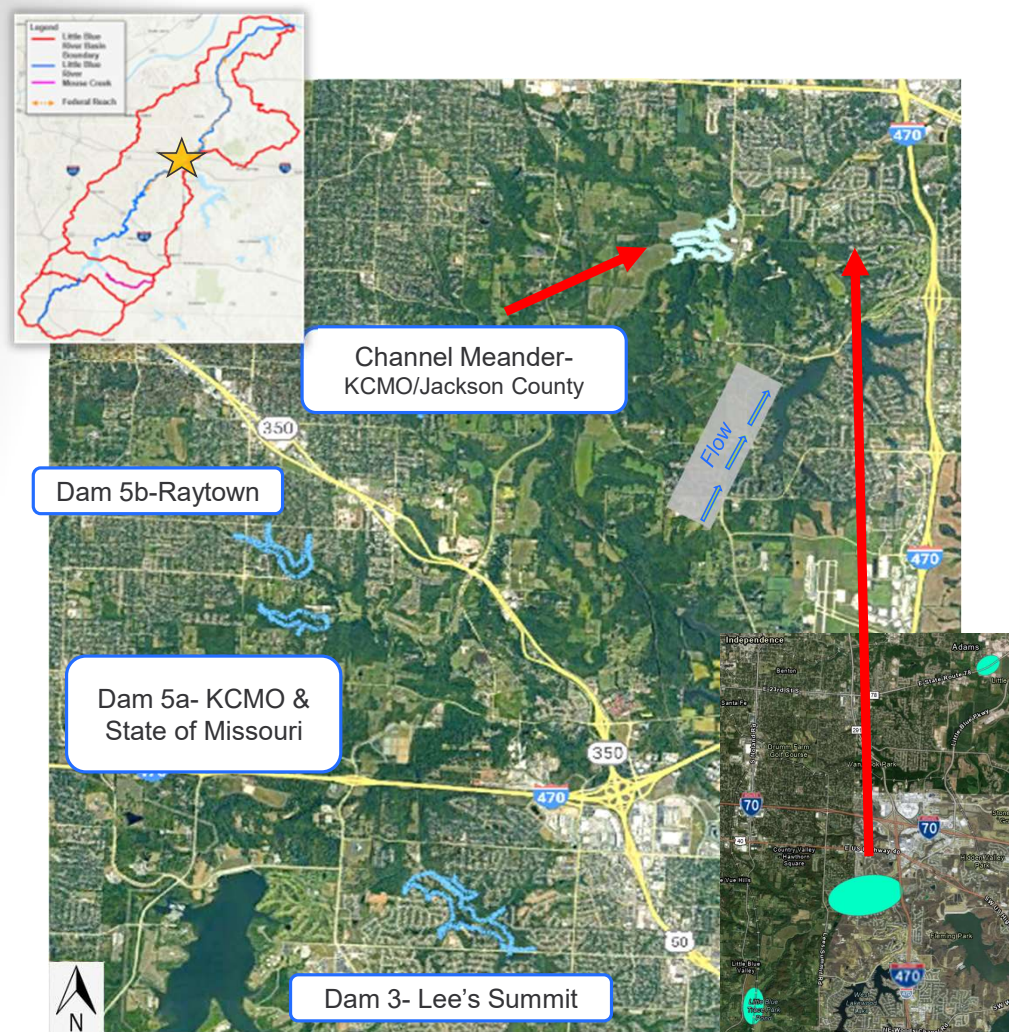
Rationale for additional real estate:

- Existing forested areas are required for the success of proposed planting areas.
- Current ecological conditions will need to be maintained over the project's lifetime.





REACH 5 – MAINSTEM PREFERRED ALTERNATIVE (FLOOD RISK MGMT.)



Estimated Benefits By Community

Alternative 17: Dry Dams 3, 5a, 5b + Meander + Nonstructural (buyouts and elevations)

Municipality	Without project Expected Annual Damages	Mean Expected Annual Damages REDUCED	Expected Annual Damages REMAINING	Percentage of Mean Expected Annual Damages reduced by community
Blue Springs	\$6,000	\$1,000	\$5,000	0.01%
Buckner	\$0	\$0	\$0	0.00%
Independence	\$19,268,000	\$10,094,000	\$9,186,000	61.21%
Jackson County	\$1,122,000	\$712,000	\$410,000	4.32%
Kansas City	\$1,039,000	\$408,000	\$631,000	2.48%
Lee's Summit	\$7,669,000	\$5,190,000	\$2,482,000	31.48%
Raytown	\$209,000	\$84,000	\$124,000	0.51%
TOTAL	\$29,312,000	\$16,490,000	\$12,837,000	100.00%

- Eight flood events are assigned a probability of occurrence between 0 and 100 percent. Each event has estimated consequences based on first floor elevation and the depth of flooding. As event severity (consequence) increases, the probability of those events occurring decreases.
- Those annual losses represent a societal cost of flooding that could be mitigated.

DRY DAM 3 – CEDAR CREEK (LEE'S SUMMIT, MO)

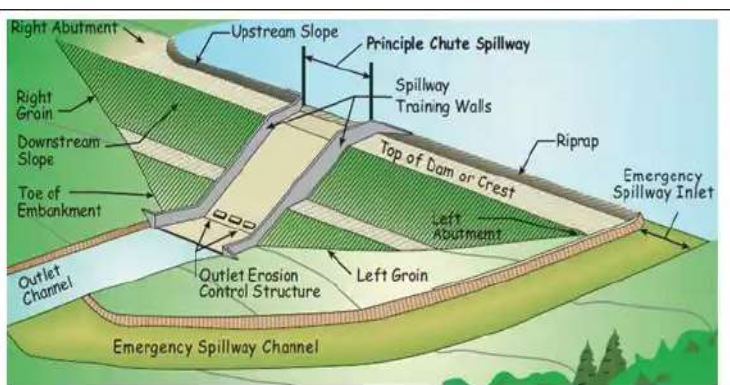
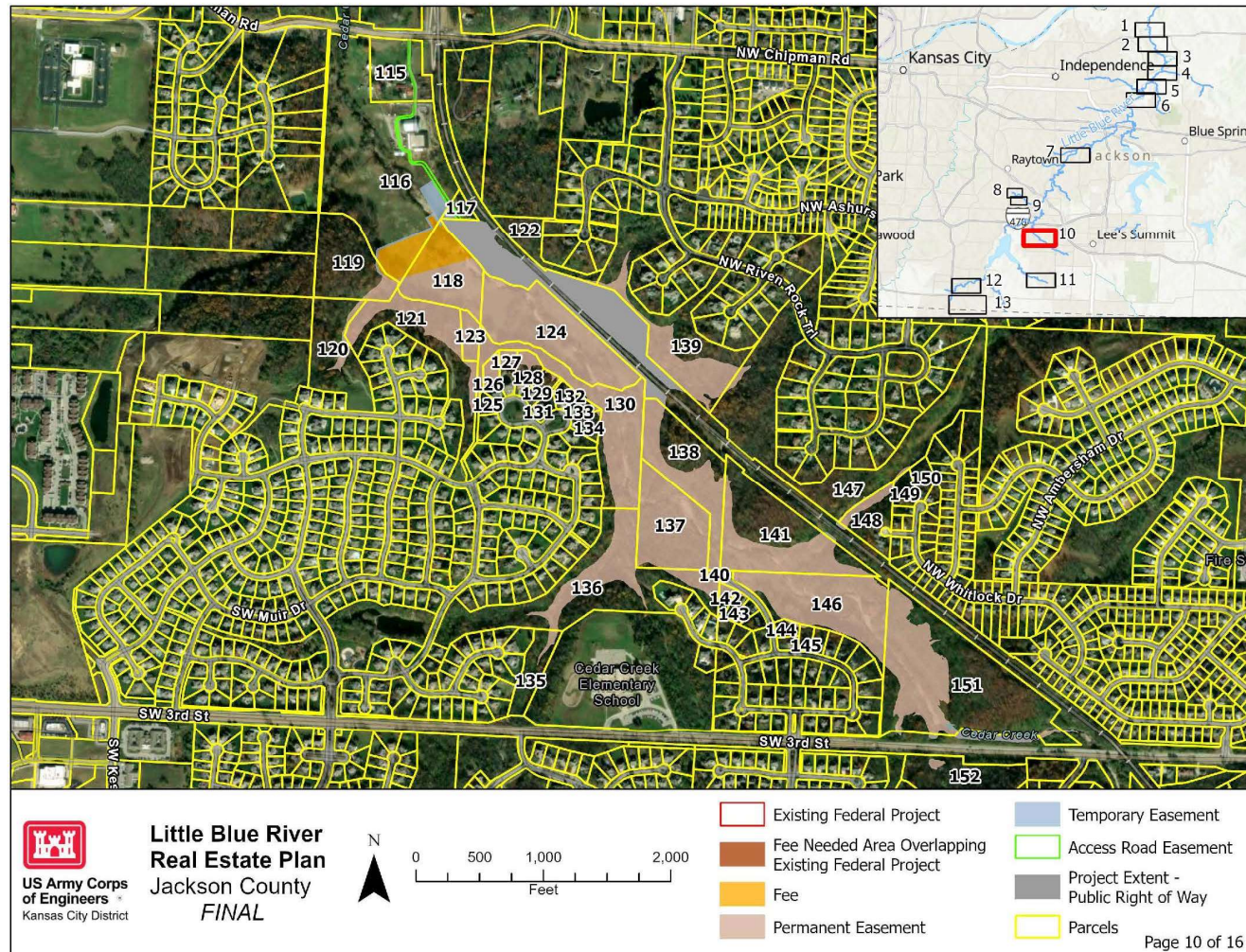
Anticipated Cost = \$91,000,000
 Land Acquisition Area = 82 acres
 Land Acquisition Cost = \$3,900,000

Impacted Parcels :

- 38 Private Ownership Parcels

Design Specifications:

- Designed for 100 yr. event
- Height: ~44 ft.
- Length: 896 ft.
- Storage at Spillway Crest: 2,295 ac-ft.



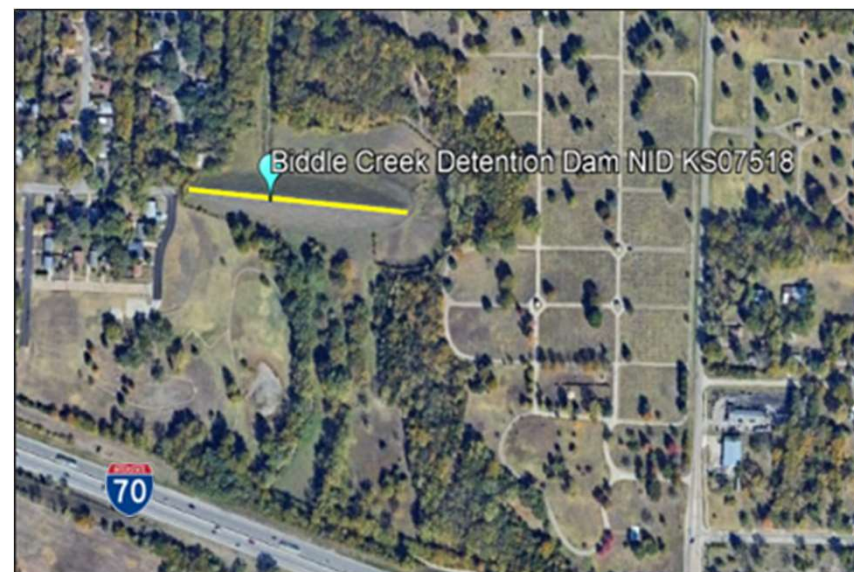


EXAMPLES OF REGIONAL DAMS



Left: Unity Lake #2, Regional Detention Basin in Unity Village, Jackson County, MO.
Height: 52 feet.
Length: 450 feet.
Storage: 618 ac-ft.

Bottom: Dry Dam on Biddle Creek, Topeka, KS



Note: Unity Lake #2 has a permanent pool. The proposed dams for the LBR Study will be dry dams.



NON-FEDERAL SPONSOR RESPONSIBILITIES

Flood Risk Management Costs:

- Reach 1, River Oaks, Grandview = \$27,690,000
- Reach 5, Mainstem, Federal Channel = \$258,780,000

Grand Total = \$286,470,000

Ecosystem Restoration Costs:

- Reach 1, River Oaks, Grandview = \$2,877,000
- Reach 3, Mouse Creek, Lee's Summit = \$4,039,000
- Reach 5, Mainstem, Federal Channel = \$54,400,000

Grand Total = \$61,316,000

Total Project Cost = \$347,786,000

- Federal (65%) = \$226,060,900
- **Non-Federal (35%) = \$121,725,100**

**Estimates are subject to change*

Local Government(s) Responsibilities:

- Provide all Lands, Easements, Relocations, Rights-of-Way, and Disposal Areas (LERRDs)
 - Willing to meet fee acquisition and relocation requirements for all project features
 - Willing and able to use Eminent Domain if needed to acquire LERRDs
- Maintain project features with required long-term Operations, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R)
- Clean up, remediate, and or dispose of Hazardous, Toxic, and Radioactive Waste (HTRW)
- Letter of Intent and self-certification of financial capability for Implementation Sponsor(s) for PED and Construction phases

Path Forward

Important Future Dates

- 30 May 2025 – Identify the Tentatively Selected Plan (TSP)
- **Aug 2025** – Release Draft Report with TSP for public review and comment, 30 days
- **Late Aug/Early Sep. 2025** – Public meeting(s) to receive public comment
 - **Partner participation in Public Review process and meetings**
- **Sep 2025** – Conclusion of 30-day comment period
- Jul 2026 – Agency Decision Milestone (ADM)
 - **Receive Partner concurrence on the Recommended Plan**
 - **Identify Non-Federal Sponsor(s) for execution of Design & Construction phases**
- Mar 2027 – Final Report
- Sep 2027 – Chief's Report with USACE Headquarters

FOR ADDITIONAL INFORMATION, COMMENTS ,OR
QUESTIONS, PLEASE CONTACT:

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