CAP 205: MERAMEC RIVER AT FENTON, MO

Flood Risk Management Study

Public Scoping Meeting

28 March 2023

5:30 – 7:00pm

U.S.ARMY

US Army Corps of Engineers®

Project website: www.mvs.usace.army.mil/missions/programs-project-management/fenton-mo-frm/

AGENDA

- Introductions and Meeting Format
- Overview of the study & the study area
- The study process: what's been done, our process, & the importance of public input
- Possible solutions
- Path forward
- Comments & questions

LOCAL SPONSOR:

City of Fenton, Missouri

AGENCY COORDINATION

Metropolitan St. Louis Sewer District

East-West Gateway Council of Governments

Saint Louis County Missouri

Missouri Conservation Department — Serving nature and you

SEMA

Great Rivers Greenway

Missouri Department of Natural Resources

FEMA

STUDY/PROJECT AREA

FEMA's National Flood Hazard Layer viewer

Legend

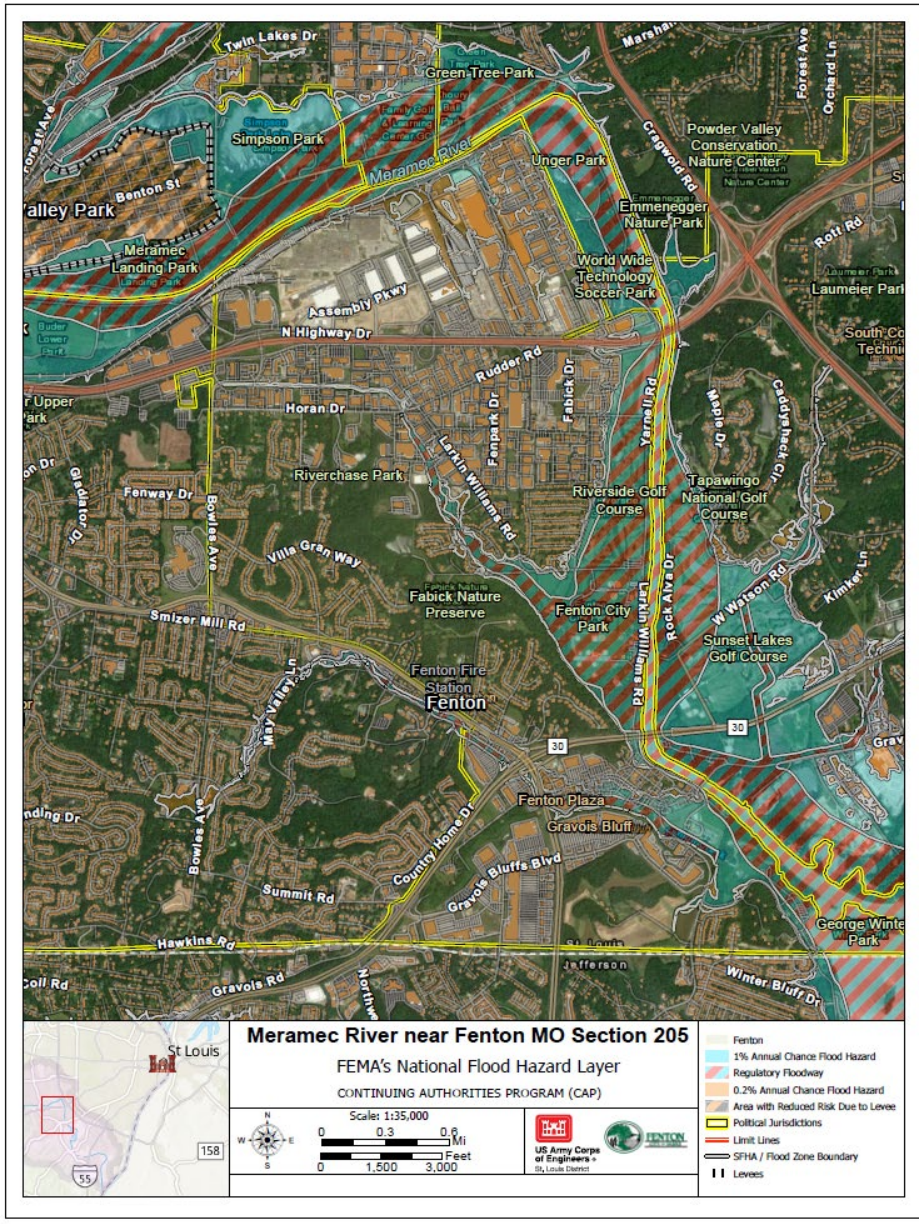
NFHL

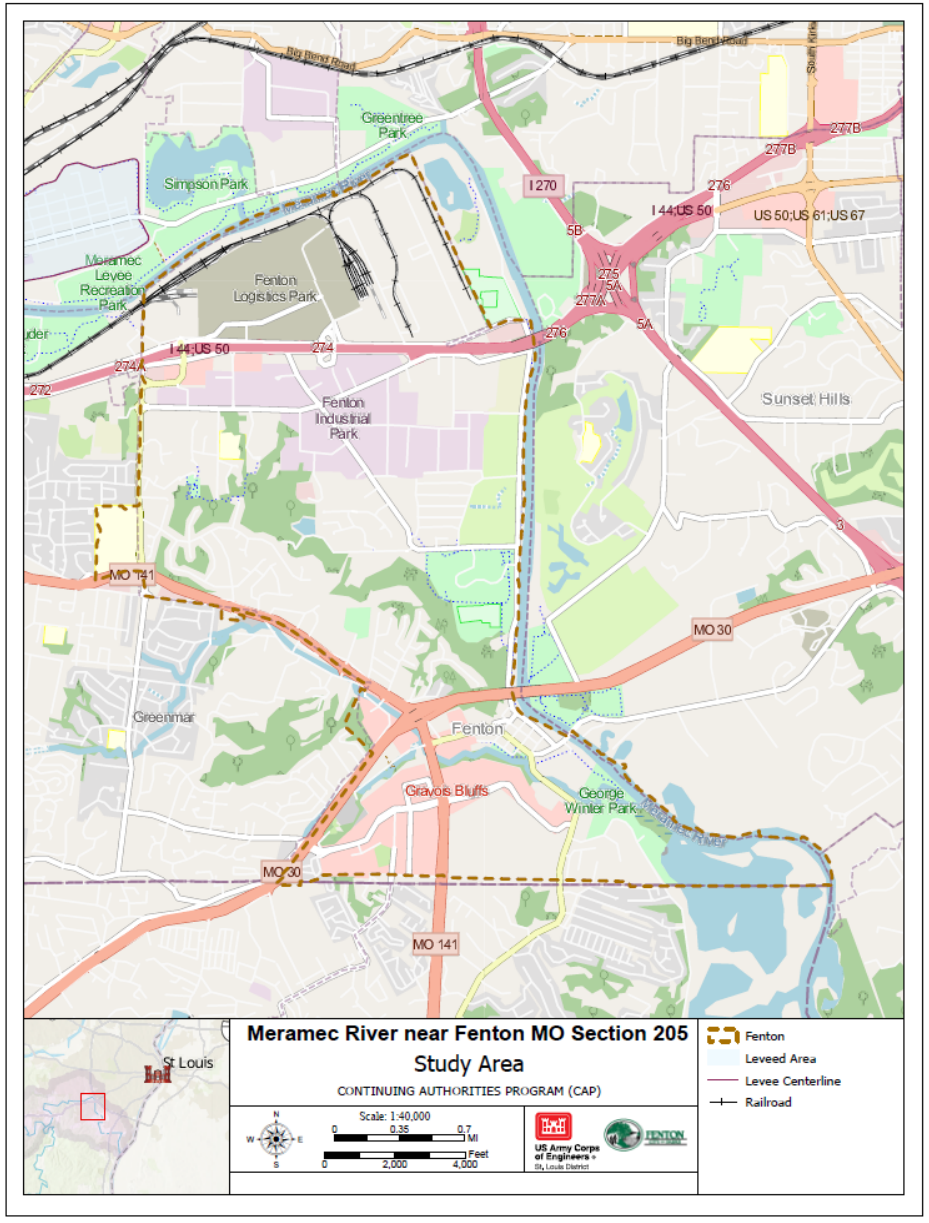
Political Jurisdictions

General Structures
- Flood Structure
- Bridge
- Dam, Weir, Jetty
- Other Structure

Flood Hazard Boundaries
- Limit Lines
- SFHA / Flood Zone Boundary
- Other Boundaries

Flood Hazard Zones
- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard





STUDY AUTHORITY

U.S. Army Corps of Engineers Continuing Authorities Program (CAP)
Section 205, Flood Control Act of 1948, as amended. 33 USC 701s

<u>What is CAP?</u>

A suite of nine authorities under which the Corps can plan, design, and implement certain types of water resources projects without additional project specific congressional authorization.

Section 205 is for small flood risk management projects that are small in size, scope, and complexity with limitations on costs and scope.

WHAT HAS ALREADY (RECENTLY) BEEN DONE?

- 2018 - USACE and local communities developed a Lower Meramec Multi-Jurisdictional Floodplain Management Plan with mitigation techniques.

- 2022 – Yarnell Creek PAS Flood Risk Evaluation for City of Fenton; Federal Interest Determined under the Corps' CAP Program; Feasibility Cost Sharing Agreement signed by City of Fenton.

- 2023 – Federal and sponsor funds received to initiate Feasibility Study; study kick-off.

STUDY GOAL & OBJECTIVES

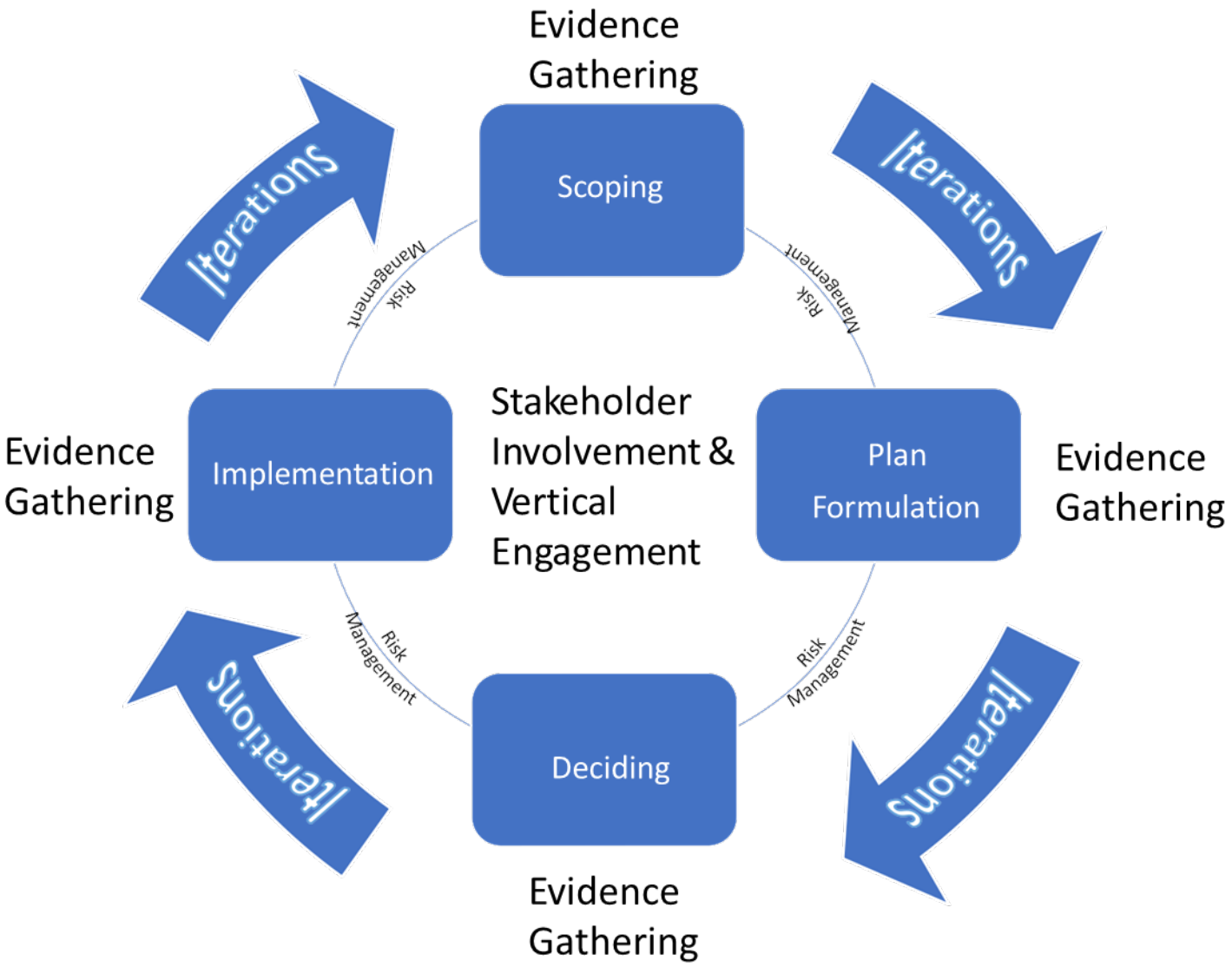
Goal: Reduce life safety risk and economic damages due to flooding of the Meramec River near Fenton, Missouri.

Objectives:

- Reduce life safety risk
- Reduce economic damage
- Increase recreational opportunities

OUR PROCESS

- Start with what's been previously studied
- Stakeholder involvement - throughout
- Gather evidence - throughout
- Analyses:
  - H&H analysis
  - Structure inventory
  - Life safety
  - Economic analysis
  - Impacts to cultural resources
- Create several alternatives
- Compare alternatives
- Select Plan



THE IMPORTANCE OF PUBLIC INPUT

• As part of the scoping process, we need your input on:

- Significant issues/impacts to be addressed in the Environmental Assessment
- Potential project features/alternatives
- Data sources
- Issues that are not significant and need not be addressed

• People living in the affected communities have the best first-hand knowledge of flooding and flood impacts

• We don’t know what we don’t know

RECENT MERAMEC FLOODING IN THE STUDY AREA

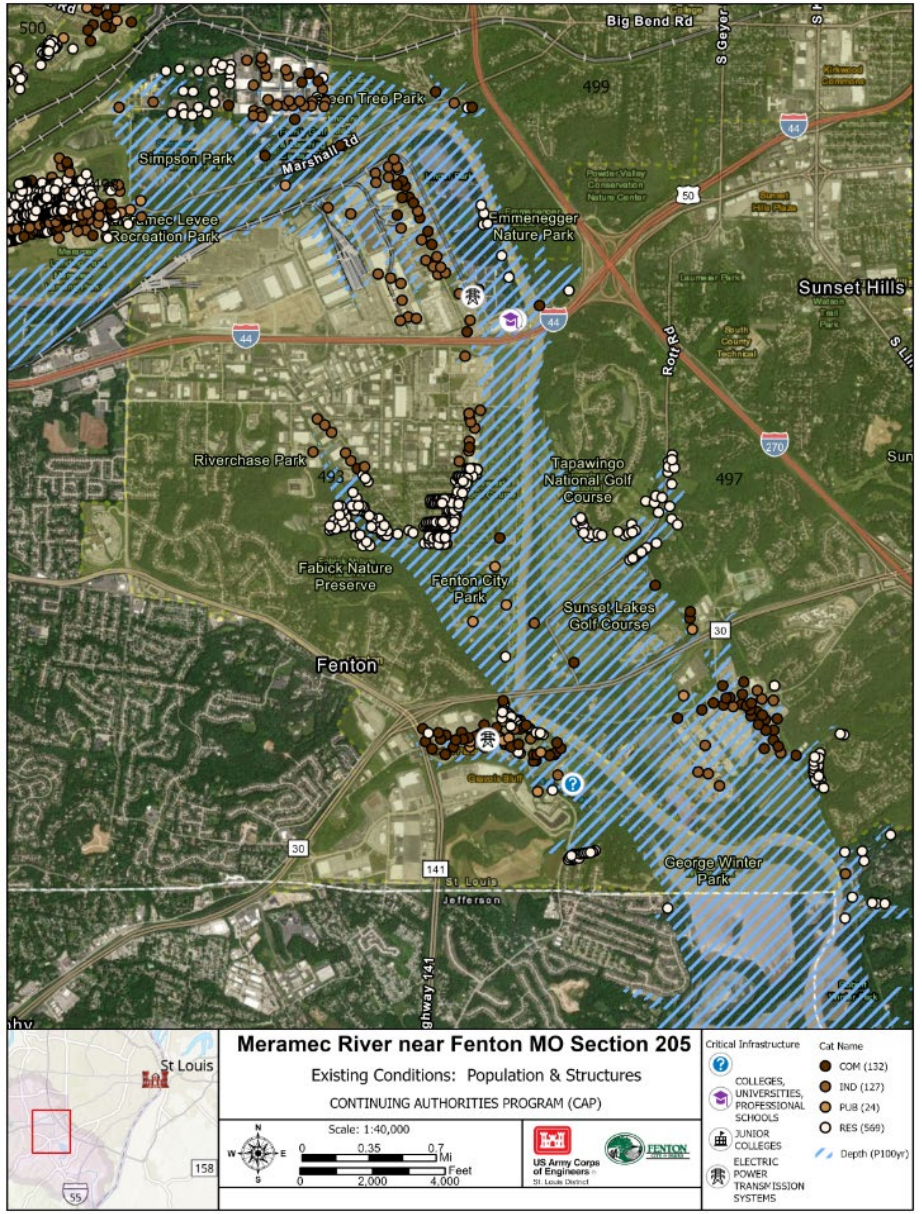
Winter 2015 - 2016

Spring 2017

EXISTING CONDITIONS: POPULATION & STRUCTURES

- In the 100-year floodplain in the authorized project area are ~1,136 structures which include:
  - Commercial;
  - Residential;
  - Public;
  - Industrial.

- Identifying critical infrastructure (schools, WWTPs, etc.)



EXISTING CONDITIONS: ENVIRONMENTAL RESOURCES

- Water Quality
  - Meramec River Priority Waters, Sensitive Aquatic Species, & Spawning Reaches
  - Clean Water Act Section 305b Impaired Rivers and Streams: Fenton Creek & Meramec River

- Environmental Quality Concerns: Phase 1 Environmental Site Assessment will be required

- Threatened & Endangered Species:
  - Gray, Indiana, Northern Long-eared, Tricolored Bats;
    Pick Mucket, Spectaclecase, Scaleshell, Snuffbox Mussels;
    Eastern hellbender; Decurrent False Aster; Monarch Butterfly

- Environmental Justice: Not considered disadvantaged under Executive Order 12898 or 14008

EXISTING CONDITIONS: CULTURAL RESOURCES

USACE is working with the State Historic Preservation Office, Native American Tribes, and other consulting parties through the Section 106 process of the National Historic Preservation Act of 1966 , which mandates federal projects account for their effects on historic properties.

- Archaeological and architectural surveys could be required to determine if any historic properties eligible for listing on the National Register of Historic Properties are present.

- If any eligible historic properties are identified, the project will try to avoid the properties. If the properties cannot be avoided any adverse effects would be assessed and mitigated.

FLOOD RISK REDUCTION MEASURES

Structural

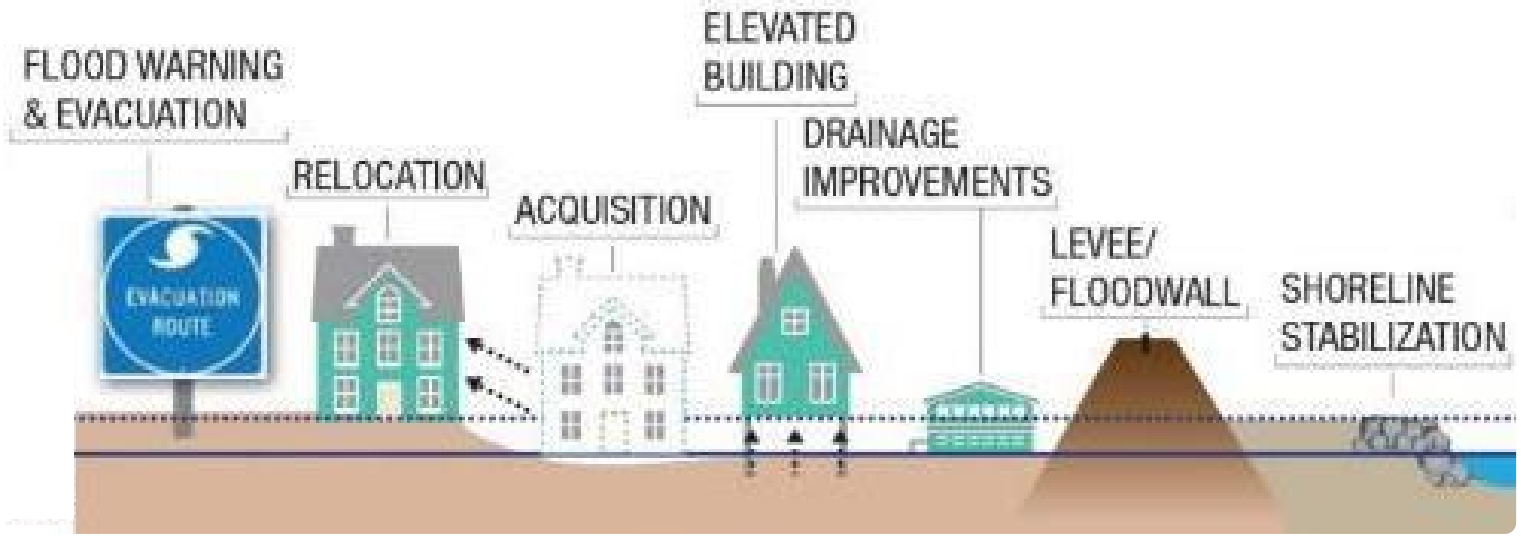
- Detention
- Channel modifications
- Bridge modifications
- Levees/Floodwalls

Non-Structural

- Floodproofing (wet)
- Elevating structures in-place
- Buyouts or permanent relocations
- Flood forecasting/warning system
- Risk communication/education
- Ordinances/regulations

Nature-Based

- Green infrastructure
- Floodplain restoration
- Channel restoration
- Watershed restoration/ conservation



DETENTION / RETENTION (STRUCTURAL)

Image: FOTH

LEVEES/FLOODWALLS (STRUCTURAL)

Photo: USACE

Photo: USACE

FLOODPROOFING (NON-STRUCTURAL)

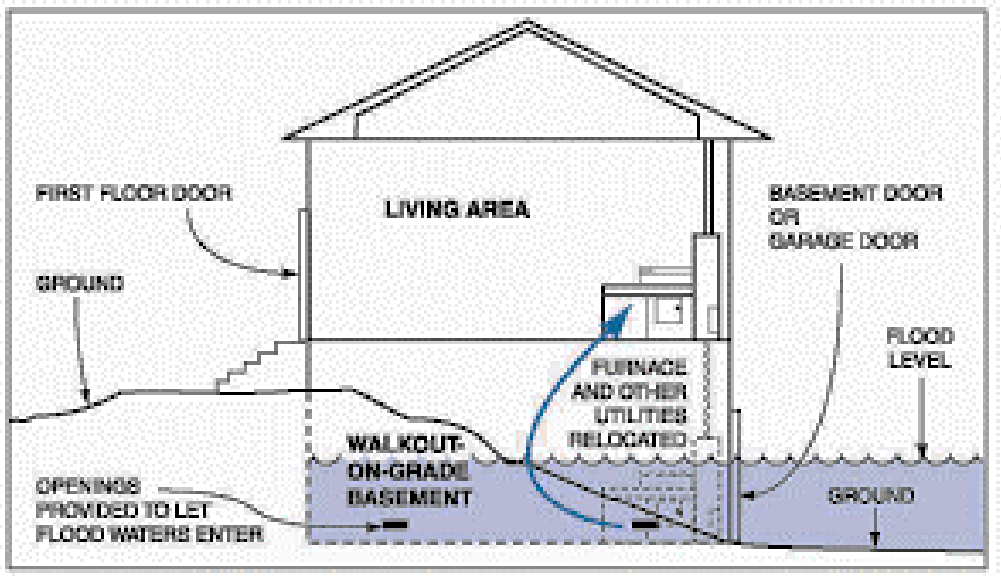
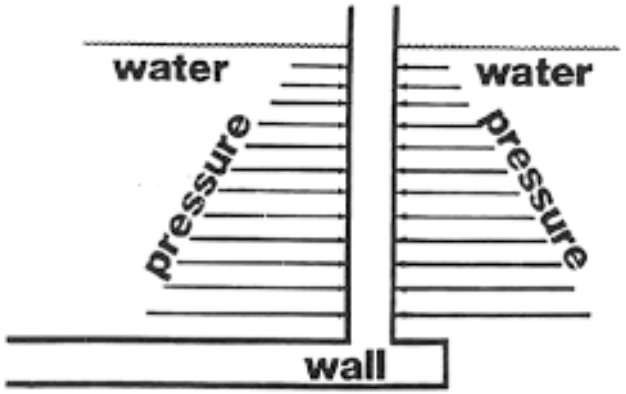


Image: FEMA



WET FLOODPROOFING

- Intentionally flooded
- non-damageable activities

Image: FEMA

Image: USACE

ELEVATION (NON-STRUCTURAL)

Images: USACE

STRUCTURE RELOCATION (NON-STRUCTURAL)

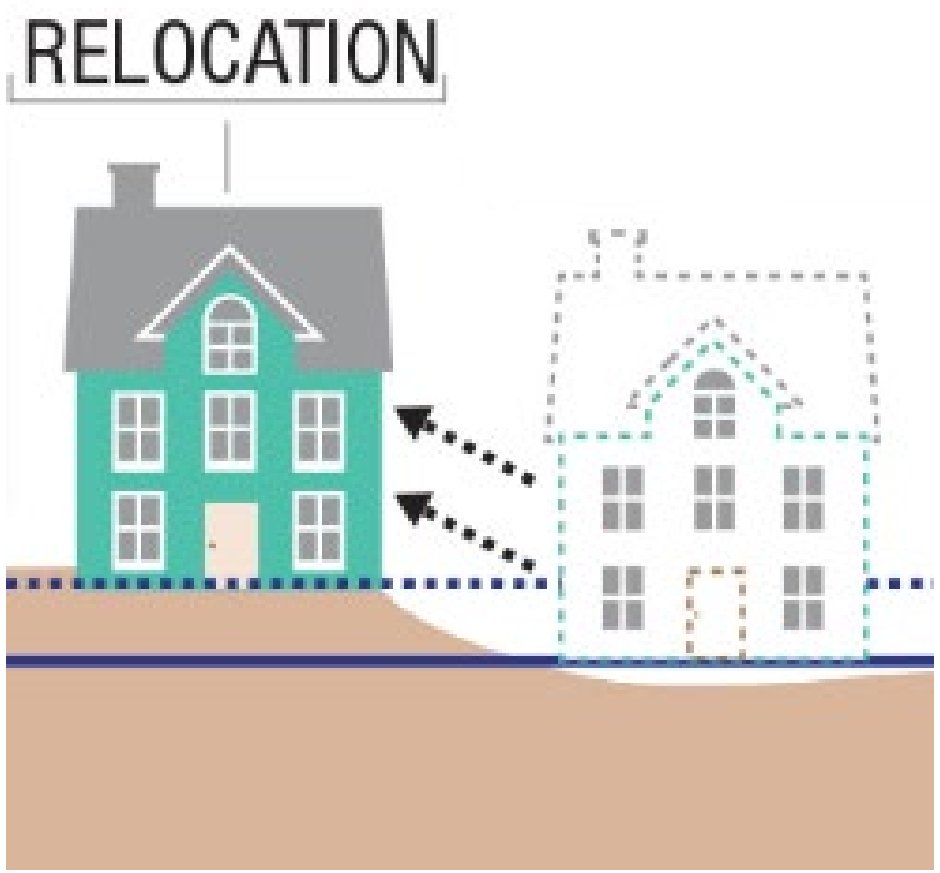


Image: USACE

Photo: realtor.com

ACQUISITION/BUYOUTS (NON-STRUCTURAL)

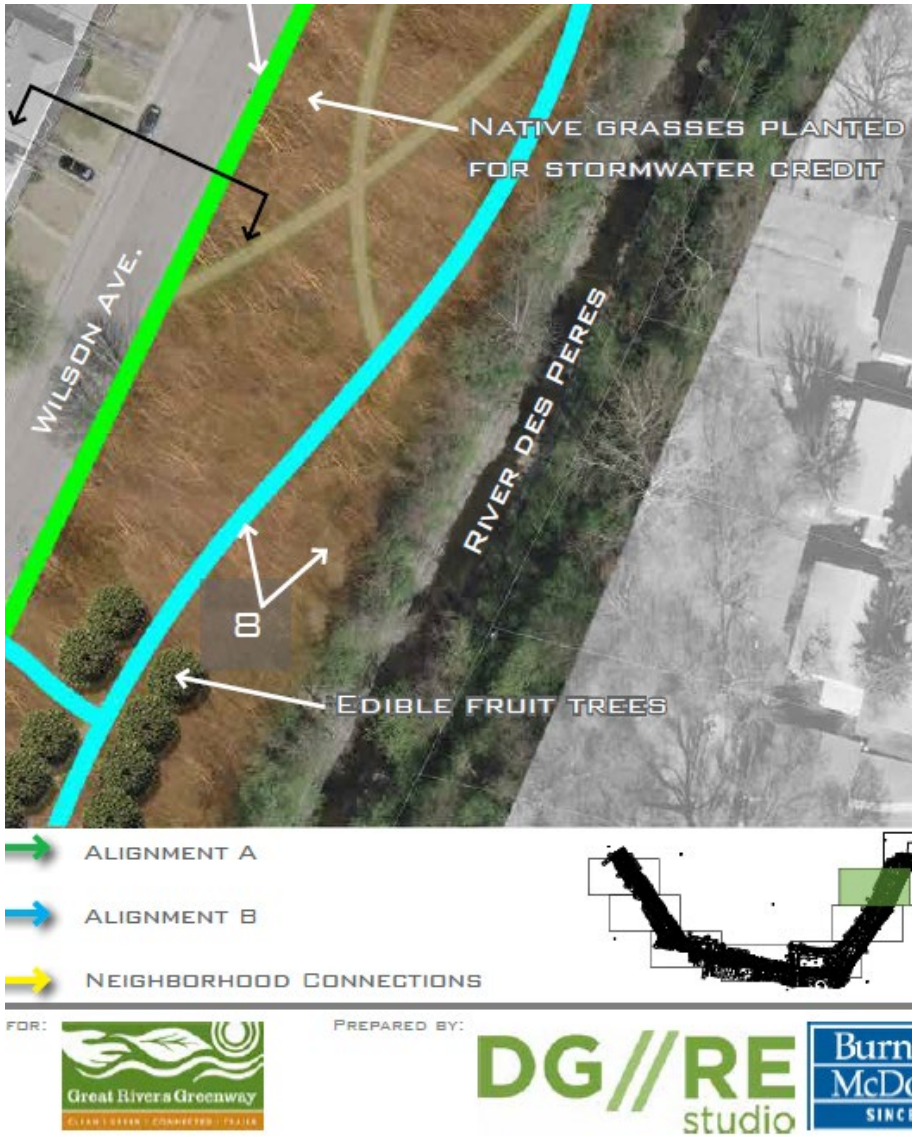
Images: USACE

FLOOD WARNING SYSTEM (NON-STRUCTURAL)

Photo: Radio NB

NATURAL AND NATURE-BASED

Image: USACE (ERDC – Engineering With Nature initiative



OVERALL STUDY TIMELINE

Nov 2022

- Project Initiation
- Alternative Development

Feb - April 2023

- Public & Agency Meetings
- Alternative Evaluation

WE ARE HERE!

July 2023

- Tentatively Select Plan
- Public Review *(anticipated September 2023)*

Dec 2023

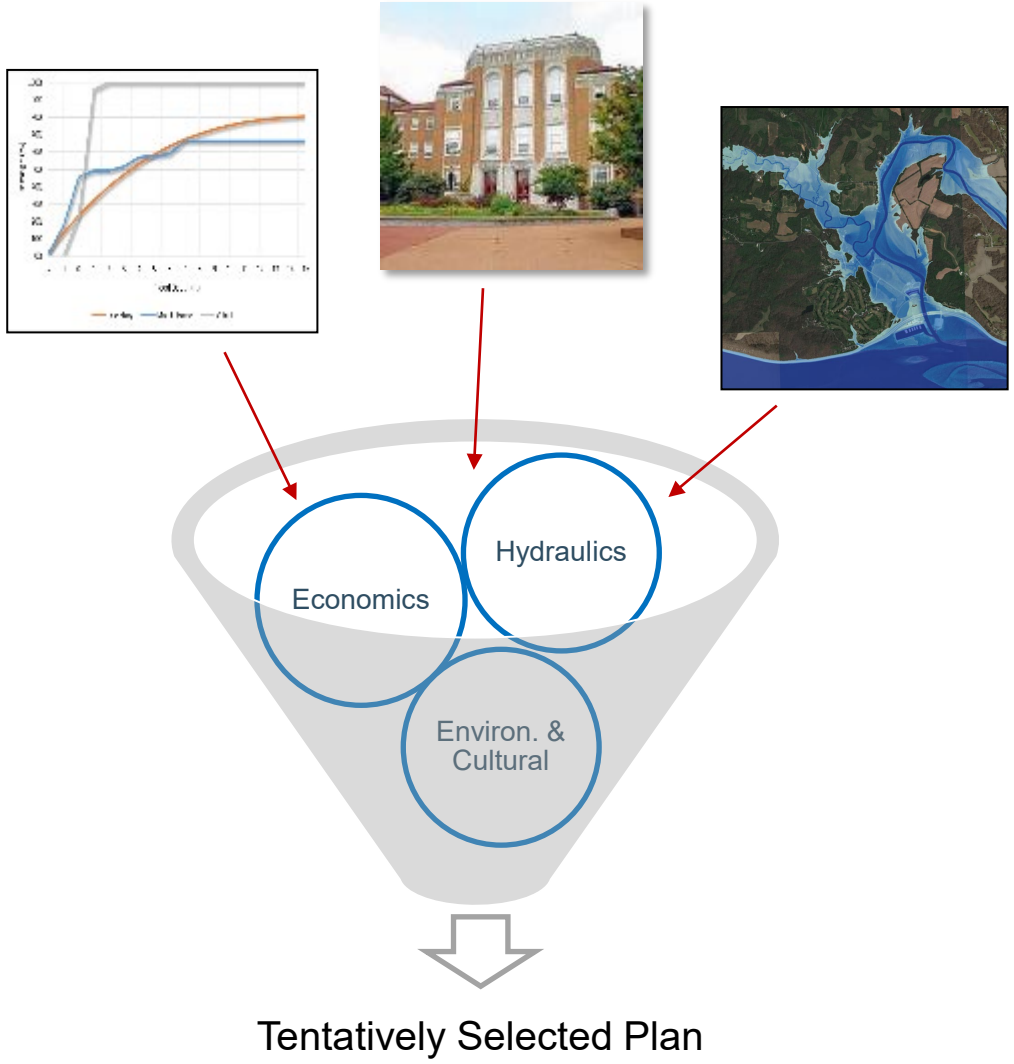
- Agency Endorsement of Recommended Plan

Dec 2024

- Approval of Final Report

PATH FORWARD

- Hydrology & Hydraulics
  - Inundation mapping (what is flooded and how deep)
- Economics
  - Structure inventory updates
  - Economic benefit quantification
- Environmental & Cultural
  - Prepare and publish draft Environmental Assessment
  - Determine quantity and cost of any mitigation for unavoidable impacts



WHAT INFORMATION ARE WE LOOKING FOR FROM YOU?

1. How many flood events have impacted you? What flood event caused the most damage in your neighborhood? How quickly did the flooding happen?

2. How has flooding impacted you and your neighborhood? E.g., harm to people, roads closed, businesses closed. How long did cleanup/recovery take? Were you displaced from your home? Was water in your basement only, or in your living space? Did the flooding come from the creek, or from a sewer backup?

3. Do you have **photos** of the flooding you'd like to share? E.g., flooding, flood cleanup, water level line on a building.

4. Are there solutions (risk reduction measures) that you would like the planning team to evaluate to address the problems?

5. Are there studies, reports, or data that you know of that could help the study?

6. Anything else you would like the planning team to know!

COMMENTS & QUESTIONS

Comments or information can also be provided to:

Matthew.A.Jones@usace.army.mil

Or by mail to:
U.S. Army Corps of Engineers, St. Louis District
C/O Mr. Matthew Jones
1222 Spruce Street
St. Louis, MO 63103

Project website: www.mvs.usace.army.mil/missions/programs-project-management/fenton-mo-frm/

Thank You for Coming!