

RIVER DES PERES, UNIVERSITY CITY, MO

General Reevaluation Report

Public Scoping Meeting

30 September 2020

6-7pm



US Army Corps
of Engineers®



Photo: University City Storm Water Task Force

Project website (with FAQs): <https://www.mvs.usace.army.mil/Missions/Programs-Project-Management/River-Des-Peres-University-City-General-Reevaluation-Report/>



Introductions
& Agenda

Study Area

Study Process

Possible
Solutions

Path Forward

Comments &
Questions

2



LOCAL SPONSOR:

City of University City, Missouri



Metropolitan
St. Louis
Sewer District

AGENCY COORDINATION



FEMA



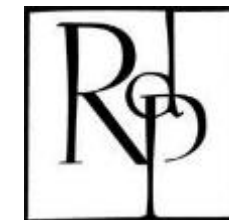
EAST-WEST GATEWAY
Council of Governments



SEMA



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES



River Des Peres
Watershed
Coalition



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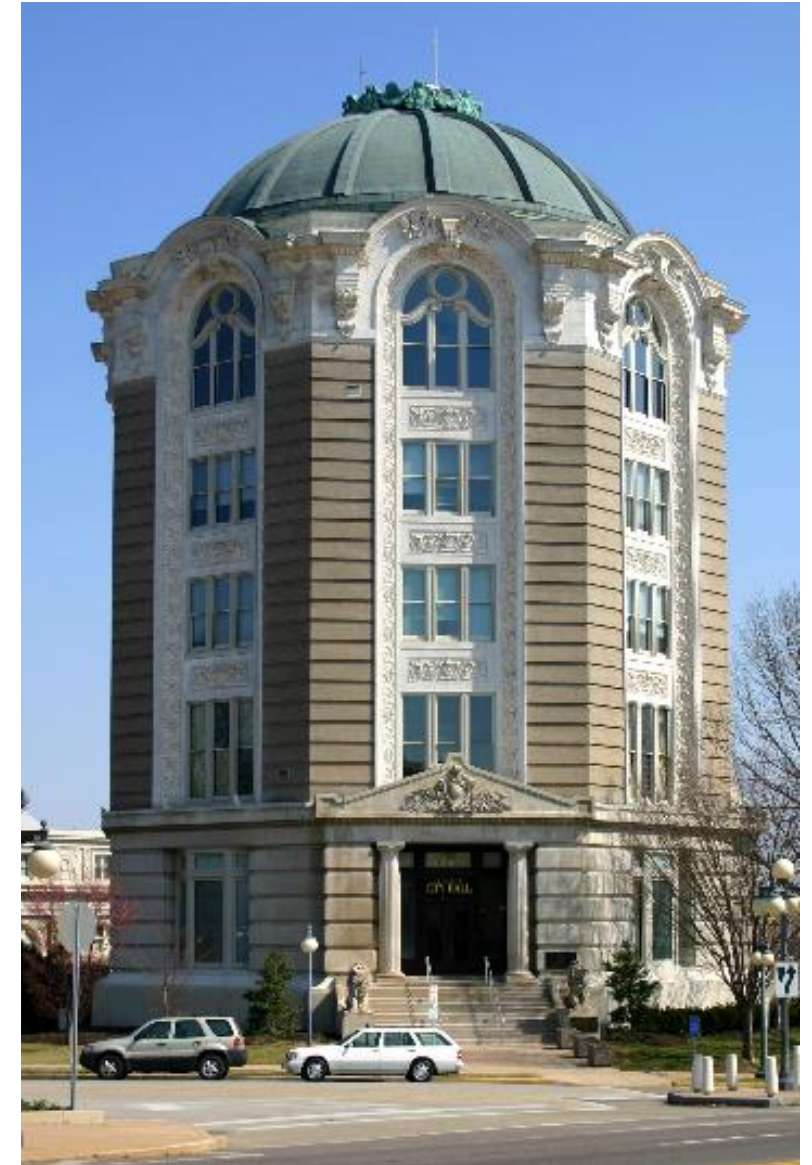
Comments &
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3



University City

The Non-Federal Sponsor

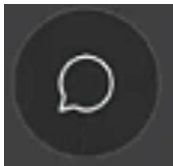




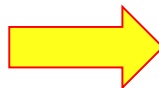
AGENDA

- Introductions
- 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

At any time during the meeting, you may submit a question or comment in the Chat box.



Type your comment here



▼ Chat

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To:

Everyone

▼

Enter chat message here

You may also email ucityfloodrisk@usace.army.mil during or after the meeting.

STUDY AREA LOCATION



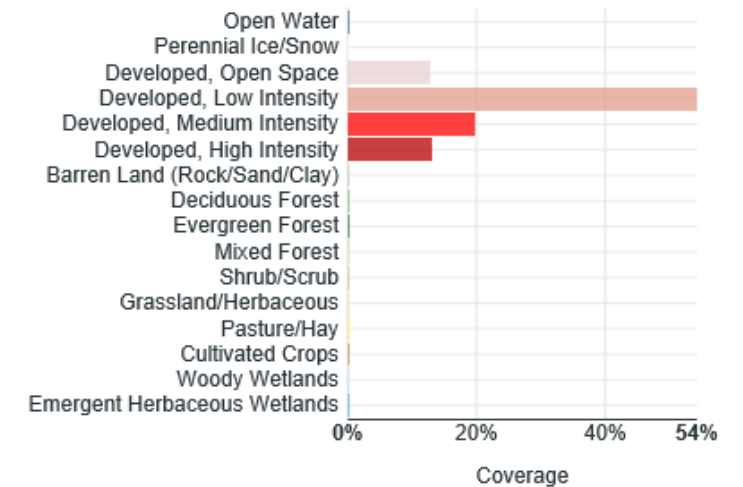
Watershed map – HUC12 (modelmywatershed.org)

- 5,930 acres watershed area

Land cover distribution

Related Layer: National Land Cover Database [Turn on](#)

Source: National Land Cover Database (NLCD 2011)





PROJECT AREA

FEMA's National Flood
Hazard Layer viewer

Legend

NFHL

Political Jurisdictions



General Structures

--- Flood Structure

X Bridge

— Dam, Weir, Jetty

— Other Structure

Flood Hazard Boundaries

— Limit Lines

SFHA / Flood Zone Boundary

— Other Boundaries

Flood Hazard Zones

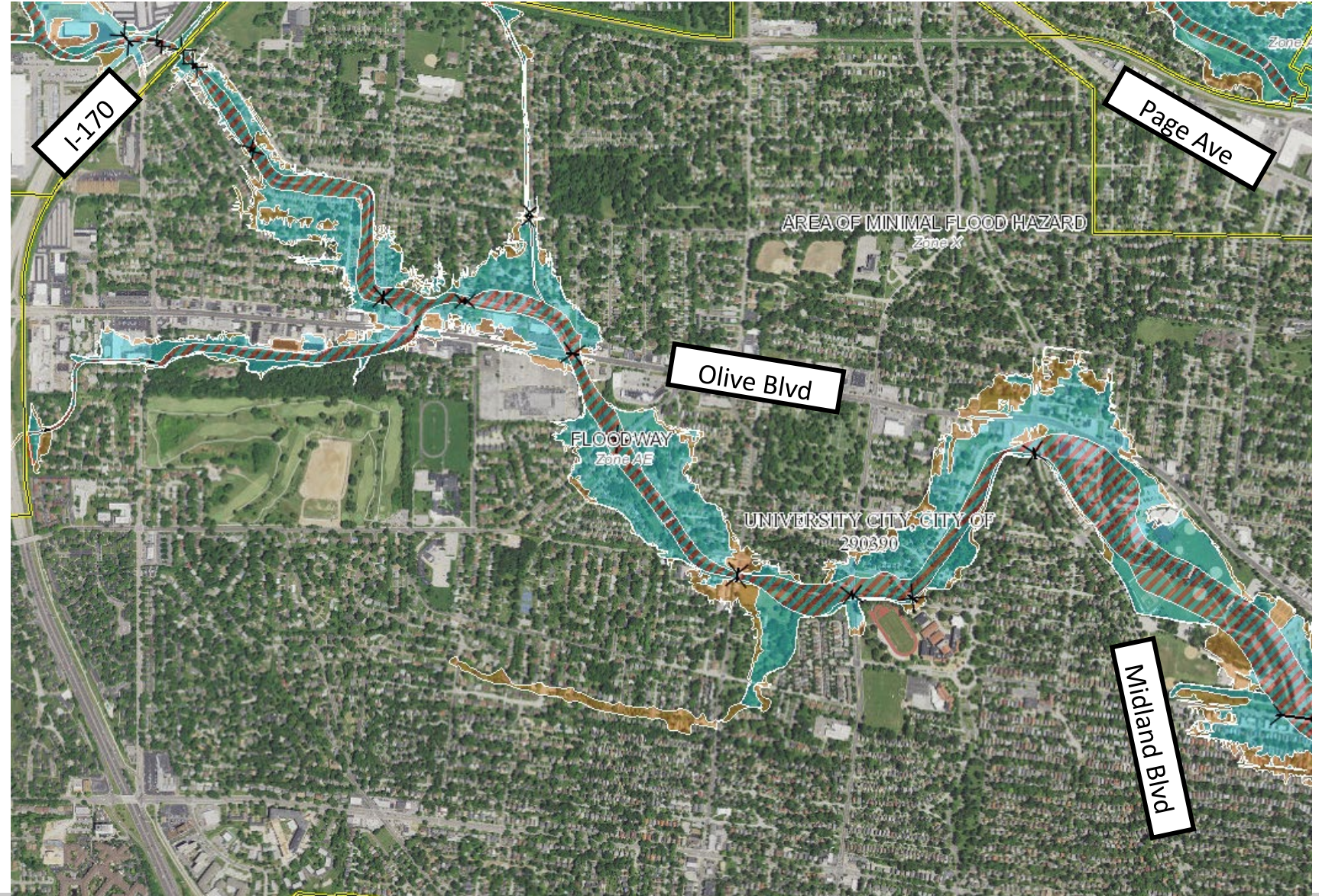
1% Annual Chance Flood Hazard

Regulatory Floodway

Special Floodway

Area of Undetermined Flood Hazard

0.2% Annual Chance Flood Hazard





Introductions & Agenda	Study Area	Study Process	Possible Solutions	Path Forward	Comments & Questions
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STUDY AUTHORITY

Congress provided project authorization in the Water Resources Development Act of 1990. Section 101(a)(17) identified projects with a Report of the Chief of Engineers for water resources development and conservation and other purposes. The authorizations were to be carried out by the Secretary substantially in accordance with the plans, and subject to the conditions, recommended in the respective reports designated in the subsection:

River Des Peres, Missouri. The project for flood control, River Des Peres, Missouri: Report of the Chief of Engineers, dated May 23, 1989, at a total cost of \$21,318,000, with an estimated first Federal cost of \$15,846,000 and an estimated first non-Federal cost of \$5,472,000.



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WHAT HAS ALREADY BEEN DONE?

- 2001 - USACE received Pre-Construction Engineering & Design (PED) funds; Hydrology & Hydraulics (H&H) modeling showed authorized plan transfers flood risk to downstream reach.
- 2004 - General Reevaluation (GRR) initiated.
- 2011 - Sponsor requested study suspension due to lack of funds.
- 2013 - Updated economic analysis of the buyout plan



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STUDY GOAL & OBJECTIVES

Goal: Reduce life safety risk and economic damages due to flooding of the Upper River Des Peres, and increase recreational opportunities associated with FRM features over the period of analysis.

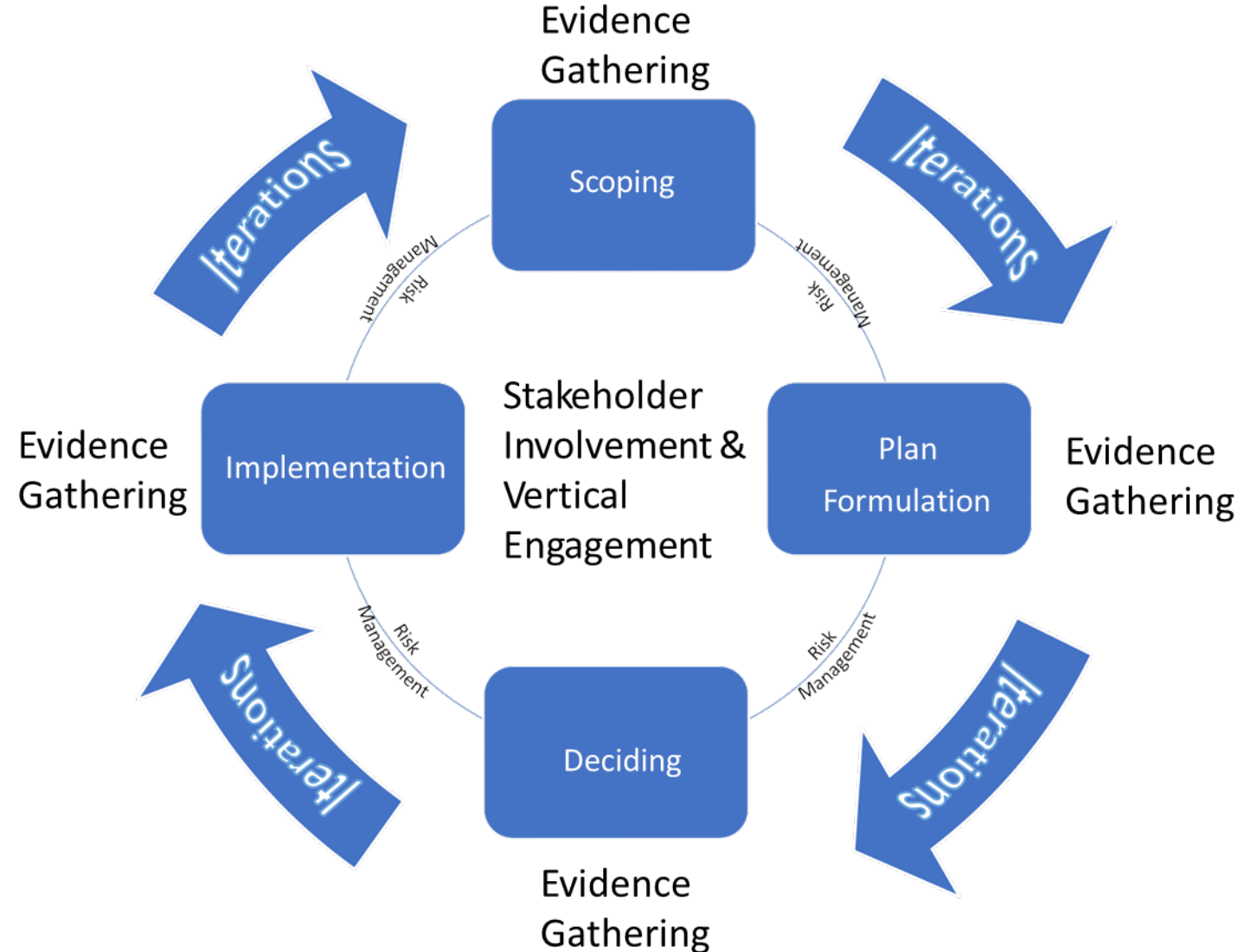
Objectives:

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

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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
- 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



Flooding in University City, 2014



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RECENT FLOODING IN THE STUDY AREA

2008



2011

2013

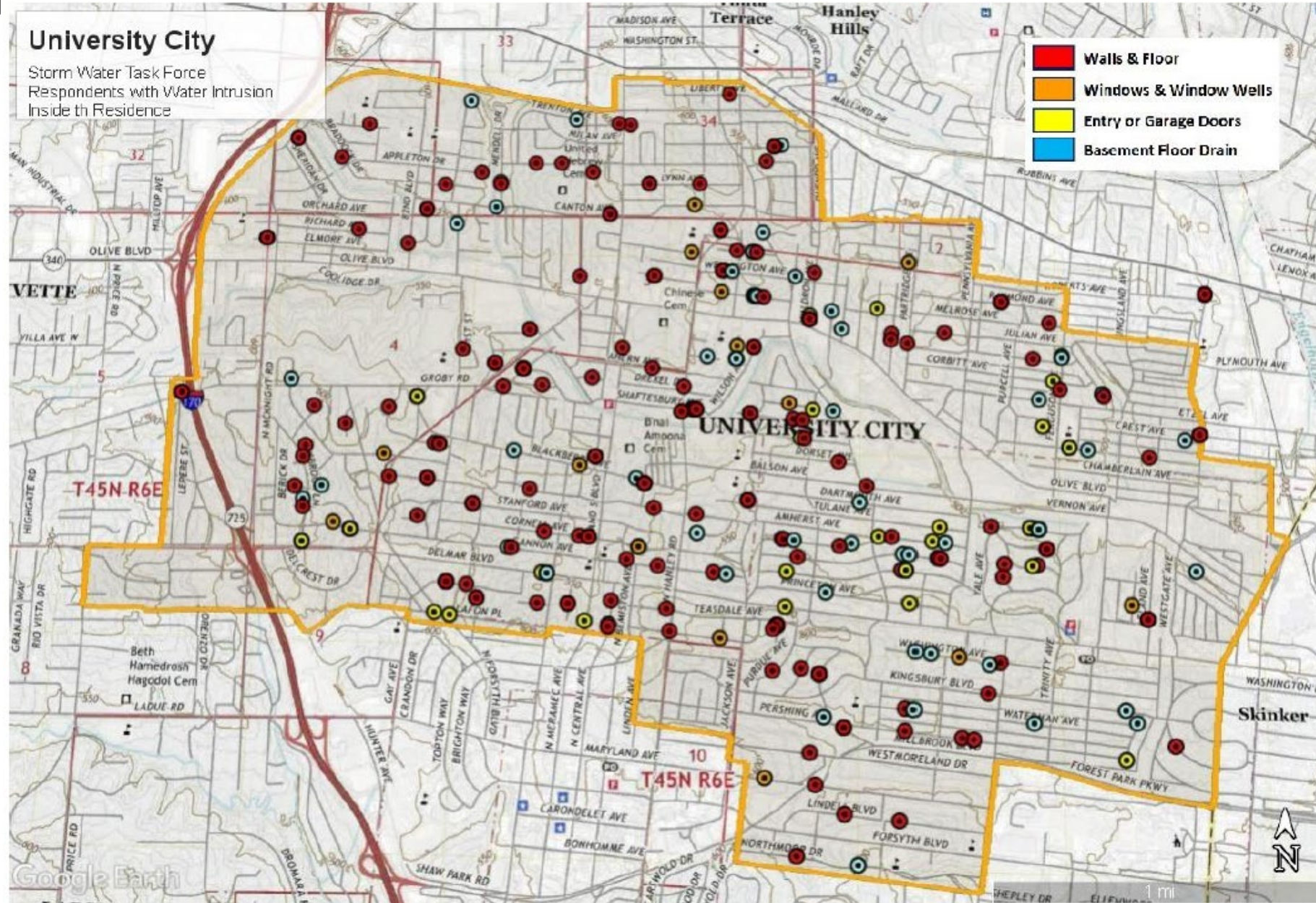
2014

2019

2020



STORM WATER TASK FORCE SURVEY (2018)



From 2019 Storm Water Task Force Report

Respondents with water intrusion inside the residence

Task Force members followed up on the survey with 20 site visits

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EXISTING CONDITIONS: POPULATION & STRUCTURES

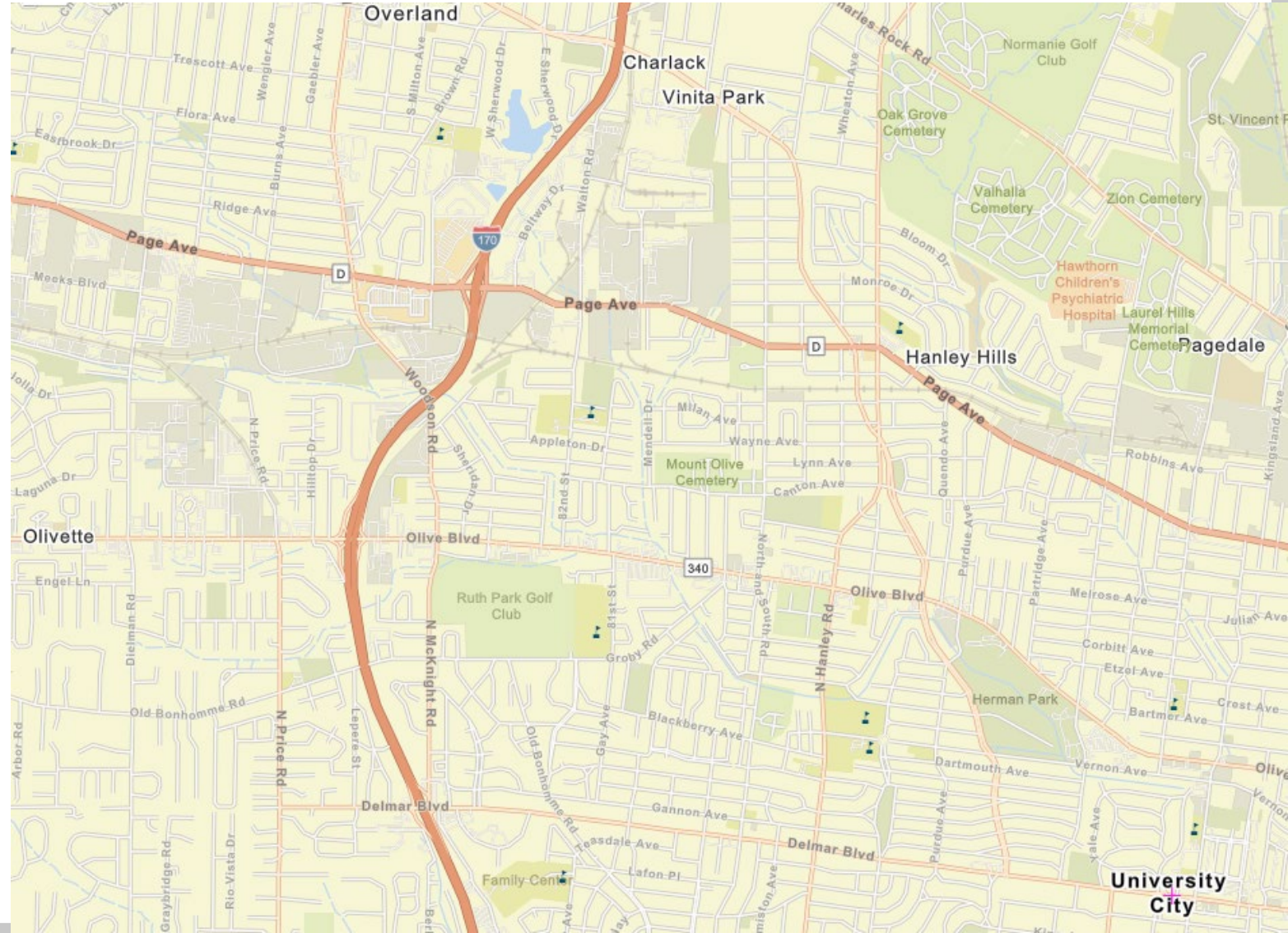
Seven municipalities in the watershed:
University City, Wellston, Pagedale, Hanley Hills, Vinita Park, Overland, Olivette

Approximately 10% population decline in University City in past 20 years

Minority population of University City is 52% (state average is 20%)

In the 100-year floodplain in the authorized project area are ~1,100 structures, of which ~1,000 are residential

Four critical infrastructure locations in the 500-year floodplain (3 schools & a fire department/EMS)



EXISTING CONDITIONS: CULTURAL RESOURCES

Cultural: Two areas of concern within the 10-year floodplain in the project area in the SHPO database: University Heights Subdivision Number 1, and University City Education District.



Photo: St. Louis Post Dispatch

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FLOOD RISK REDUCTION MEASURES

Structural

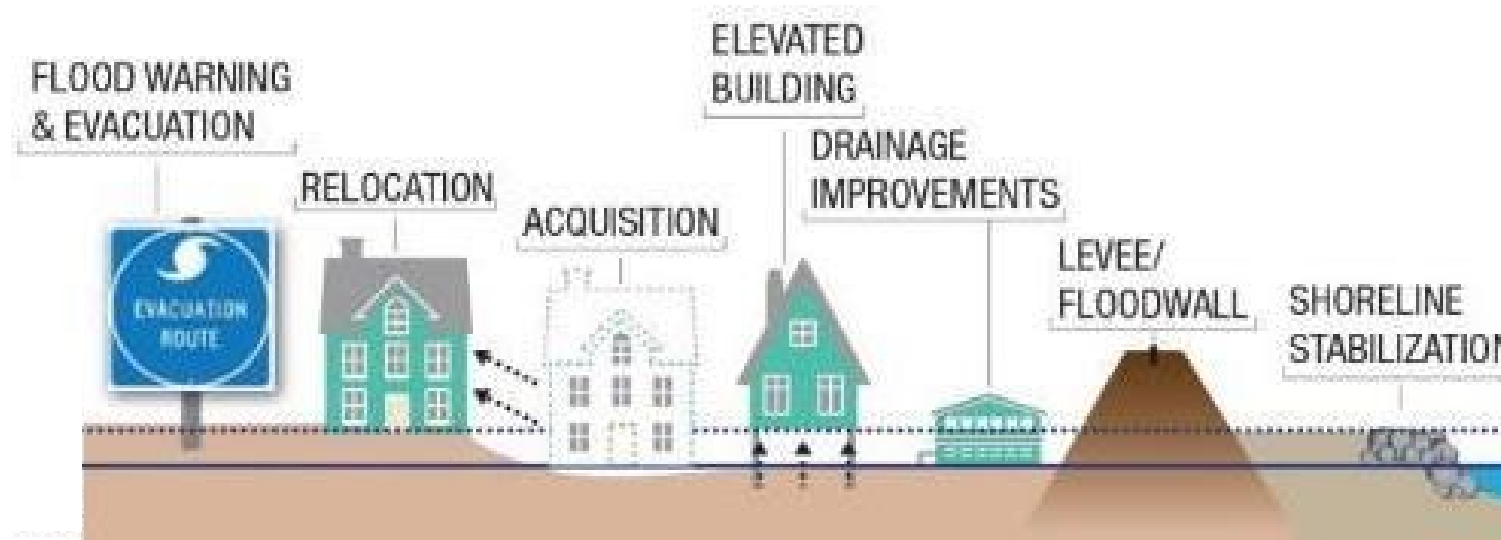
- Detention
- Channel modifications
- Bridge modifications

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



CHANNEL MODIFICATION (STRUCTURAL)

River Des Peres behind Wilson Avenue, 2009



Photo: St Louis Post Dispatch

DETENTION / RETENTION (STRUCTURAL)



Image: FOTH

LEVEES/FLOODWALLS (STRUCTURAL)



FLOODPROOFING (NON-STRUCTURAL)

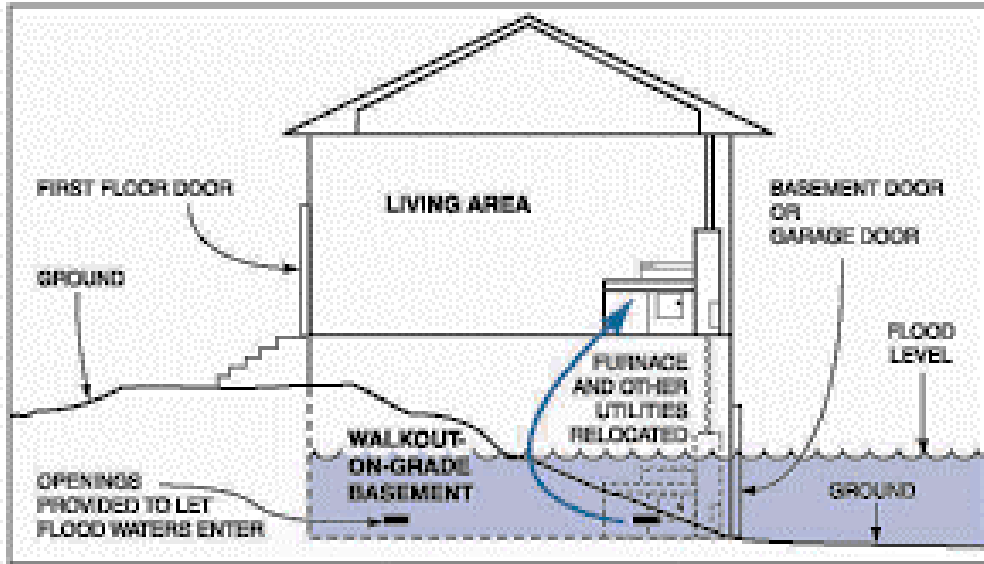
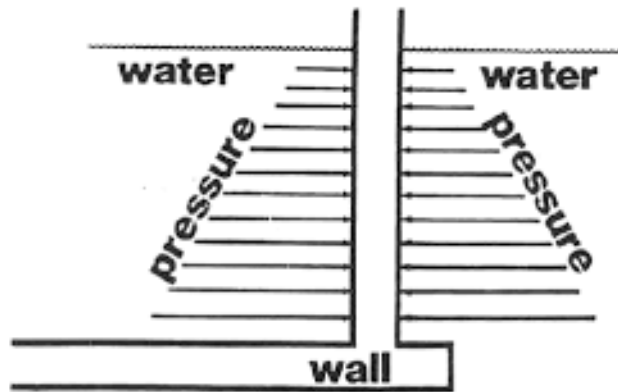


Image: FEMA



WET FLOODPROOFING

- Intentionally flooded
- non-damageable activities

Image: FEMA



Image: USACE



ELEVATION (NON-STRUCTURAL)



Images: USACE

STRUCTURE RELOCATION (NON-STRUCTURAL)



RELOCATION

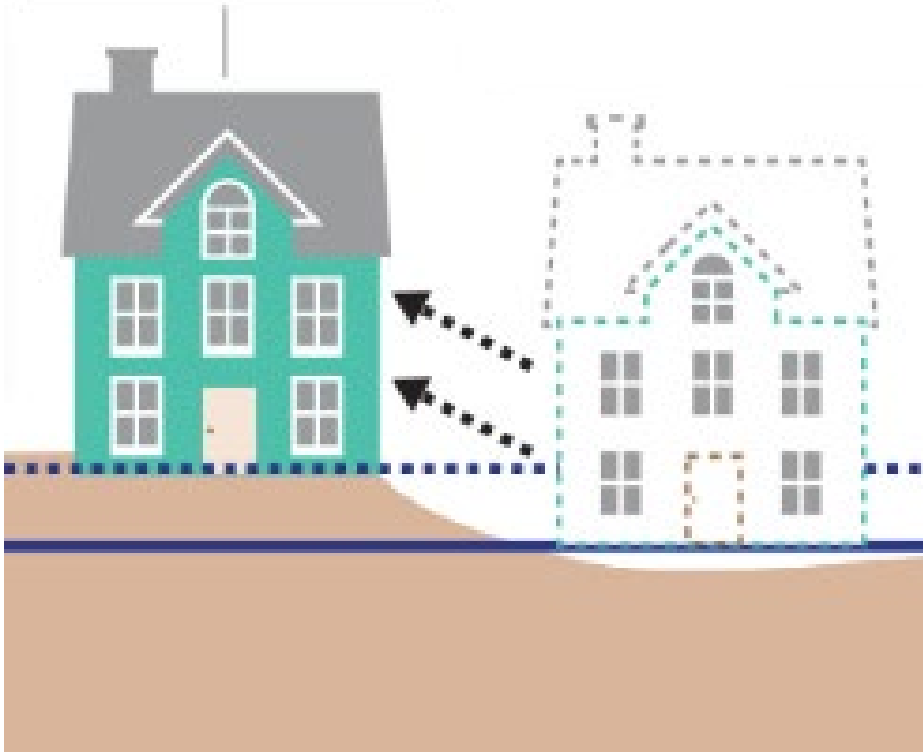


Image: USACE



Photo: realtor.com

ACQUISITION/BUYOUTS (NON-STRUCTURAL)



Images: USACE



FLOOD WARNING SYSTEM (NON-STRUCTURAL)



Photo: Radio NB

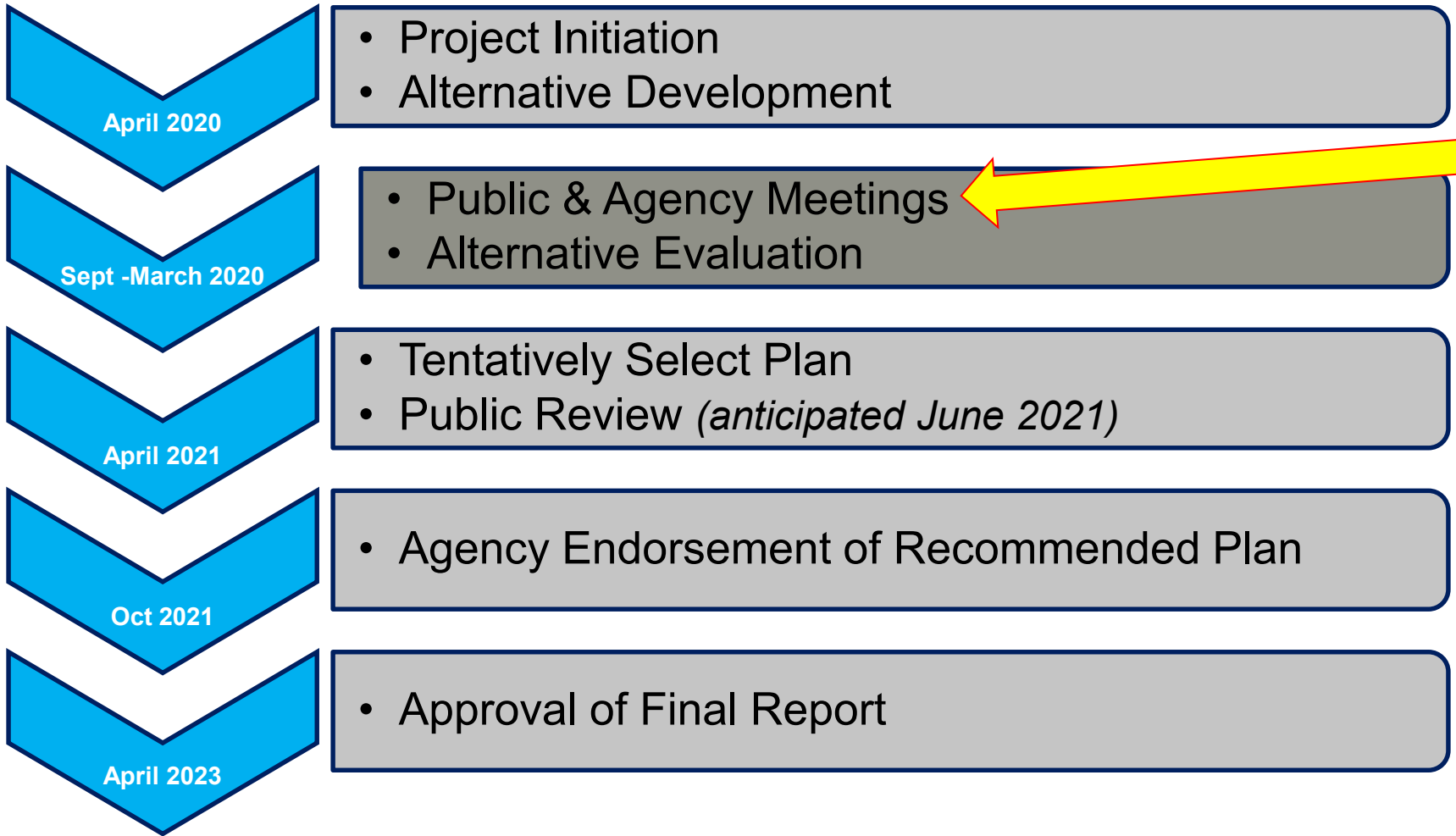
NATURAL AND NATURE-BASED





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OVERALL STUDY TIMELINE

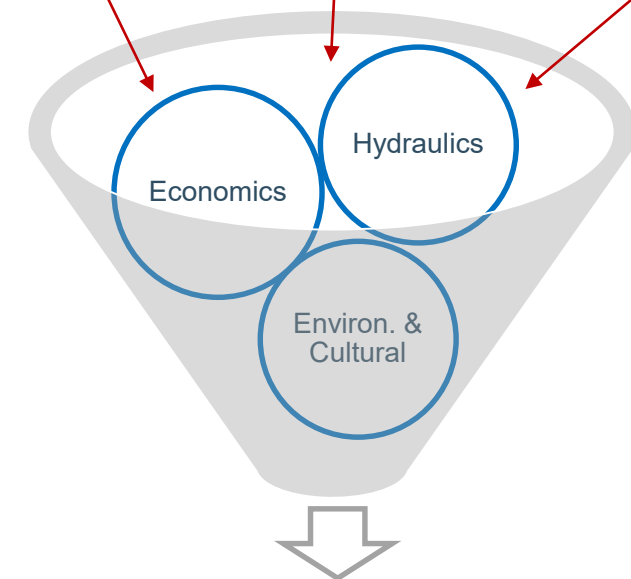
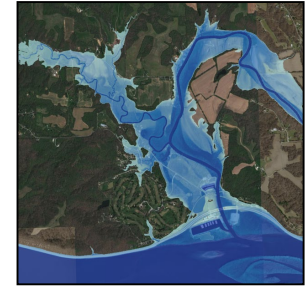
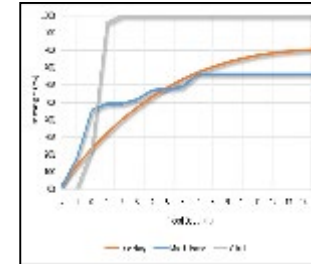


WE ARE HERE!

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PATH FORWARD

- H&H
 - Inundation mapping using HEC-RAS
- Economics
 - Structure inventory updates, HEC-FDA
 - LifeSim
 - Economic benefit quantification
 - Environmental Justice
- Environmental
 - Prepare NEPA document, publish draft Environmental Assessment
 - Determine quantity and cost of mitigation
- Cultural



Tentatively Selected Plan



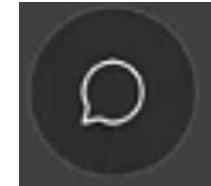
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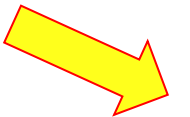
WHAT INFORMATION ARE WE LOOKING FOR FROM YOU?

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? Eg 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? Eg 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!

Click the Chat button
to open the Chat box



The box will open
on the bottom right of
your screen. It looks
like this:



▼ Chat

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To:

Everyone

▼

Enter chat message here

Type your comment and hit enter.



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COMMENTS & QUESTIONS

We will now take comments and questions via audio AND in the chat box.
PRESS *6 TO TAKE YOURSELF OFF MUTE (and check your phone isn't muted).

Comments or information can also be provided to:

ucityfloodrisk@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: <https://www.mvs.usace.army.mil/Missions/Programs-Project-Management/River-Des-Peres-University-City-General-Reevaluation-Report/>



Thank You for Coming!