



AGENDA

COMMISSION ON STORM WATER ISSUES MEETING

November 2, 2021 at 6:30 p.m.

Heman Park Community Center

975 Pennsylvania Ave., University City, Missouri 63130

1. MEETING CALLED TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES
5. CITIZEN PARTICIPATION
6. NEW BUSINESS
 - a. American Rescue Plan Act (ARPA) Survey for Statewide Water Infrastructure Needs (See Attachment #1)
7. OLD BUSINESS
 - a. Floodproofing Survey – Discussion
 - b. Relief Map Project – Update
 - c. US Army Corps of Engineers Upper River Des Peres Flood Risk Management Draft General Reevaluation Report – Update and Discussion (See Attachment #2)
 - d. Flooding Early Warning System – Update
8. SUBCOMMITTEE REPORTS
 - a. Flood Early Warning System
 - b. Communications
9. MISCELLANEOUS BUSINESS
10. COUNCIL LIAISON COMMENTS
11. ADJOURNMENT

Please call (314) 505-8572 or email salpaslan@ucitymo.org to confirm your attendance.

Examples of Eligible Projects under ARPA

To be eligible for ARPA funds, water infrastructure projects should follow the eligibility criteria found in the [Clean Water State Revolving Fund Eligibilities](#) and the [Drinking Water State Revolving Fund Eligibility Handbook](#).

These examples are derived from the [86 Fed. Reg. 26804-26806 \(May 17, 2021\)](#) Supplementary Information (see II(D)(1)).

Drinking Water

- Treatment plants
- Transmission and distribution mains
- Supply sources (i.e. wells, interconnections, and surface water intakes)
- Storage facilities
- Interconnect for emergency back-up, regionalization and consolidation projects (including acquisition of an existing wastewater treatment plant)
- Water security projects, including cybersecurity projects

Wastewater

- New treatment plants and treatment plant improvement /upgrades
- Acquisition of an existing wastewater treatment plant
- Sewer line extensions associated with regionalization projects
- Treatment plant decommissioning actions associated with plant replacement or regionalization projects
- Sewer line extensions to existing unsewered properties
- Combined sewer overflow and sanitary sewer overflow corrections
- Projects for reusing or recycling wastewater
- System efficiency, conservation measures, and security projects, including cybersecurity projects

Urban Stormwater and non-point source pollution control

- Measures to manage, reduce, treat, reuse, or recapture stormwater or subsurface drainage water
- Wetland protection and restoration measures associated with source water protection of a public water supply
- Decentralized wastewater treatment systems
- Source water protection measures
- Green infrastructure such as rain gardens and green streets

From: [Eric Karch](#)
To: [Buchanan, Janet I CIV USARMY CEMVP \(USA\)](#); [Jones, Matthew A CIV USARMY \(USA\)](#)
Cc: [Bob Criss](#); [Todd Thompson](#); [Garry Aronberg](#); [Sinan Alpaslan](#); [Tim Cusick](#); [John F Mulligan](#); [Eric Stein](#); [Mark Holly](#); [Asunskis, Joel P CIV USARMY CEMVS \(USA\)](#)
Subject: U City SM Commission - Questions
Date: Friday, October 29, 2021 7:59:01 AM
Attachments: [20211025_USACE Responses to U City Council Commission Os.docx](#)

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Matt & Janet,

Thank you for your presentation to the City Council work session. We are all clearer now on many elements of the TSP and process. However, we do have questions/requests. In an attempt to stay on schedule, can you please address the following in advance of our Nov 2 Stormwater Commission meeting? *Note...I just received from Mr. Alpaslan a response that the Corps gave to the City (attached) that partially address questions 1 & 3, however I am leaving the following questions in the format decided by the commission. Please supplement or refer to your responses to Council as needed.*

Also, while we appreciate your offer to attend Nov 2, we decline the offer. We prefer to use our limited time to discuss this internally as there is much to cover.

1. How can the City use any remaining budget for those voluntary measures that are not fully utilized due to lack of participation in the plan? Will the City have flexibility to direct remaining budget for other flood reduction measures that are not defined by the TSP?
2. Please provide a breakdown of the costs for each nonstructural category, so we have a better idea of what part of the budget is mandatory vs voluntary, and commercial vs residential.
3. Regarding identification of the properties in the non-structural options: City Council and the Commission have asked the Corps to identify the addresses. The Corps indicated there are advantages to the City if the Corps does not identify the properties, but did not say why. Please elaborate. We are trying to understand whether/how this plan meets the smell test of dealing with those properties that we know flood frequently. For example, we know that the Westover and Hafner Court Apartments regularly floods. At present, we don't know if this is the lone commercial floodproofing structure listed in Reach 5, or if apartments were excluded because water levels exceed the 36" limit for dry floodproofing a commercial building. Absent good logic to the contrary, knowing the addresses of these structures is critical for the City Council and Commission to determine our support for the TSP.
4. Please provide the latest proposed condition HEC-RAS modeling that includes DB4. This is needed to help us understand how much DB4 lowers water levels at various points in the channel for different interval events, e.g. 25 yr, 10 yr? The July 22 GRR draft (Appendix A) shows a profile graphically, but this is not scale-able.

5. Please provide a revision to the slide deck you provided for the 10/25 meeting. You indicated there were a couple of slides (8&13?) that had old cost figures. Also, City Council and the Commission found slide 16 confusing regarding restrictions on choosing an LPP that is lower in cost than the NED. Could we choose DB4 alone as our LPP? Maybe you could revise the wording to clarify.

Sincerely,
University City Stormwater Commission

USACE Study Team Responses to University City Council & Commission on Storm Water Issues

Questions from Meeting 10/25/2021

- 1) Councilmember asked about declaring the 48 addresses for the proposed plan.

The 48 addresses in the new NED plan can be shared with the Commission and the Council, with the caveats that these addresses are subject to change in the final stages of the study, and that the City should not yet contact the owners of the structures.

It is of critical importance to the study that the structures included remain somewhat vague to the public until the appropriate time, as these details are subject to change during implementation. This is normal for a study of this kind; public meetings and large scale (low detail) maps are appropriate at this stage.

- 2) Councilmember asked what kind of public outreach will happen and when for the structure owners.

It is still too soon to contact specific structure owners, as the structures included in the plan may change between now and the end of the study. However, the City may choose to hold another public meeting to inform the public about the updated TSP or LPP, which USACE can support.

During the Preconstruction Engineering and Design (PED) phase that takes place after the study, there will be a signup period for structure owners to request to receive floodproofing treatment. Materials such as brochures will be sent out to eligible addresses and presentations/videos/public meetings may be used to help raise awareness of the opportunity. If not enough people sign up in the first signup period, a second signup period may be held. More information on how outreach, signup, eligibility, and implementation will be managed will be included in the Nonstructural Implementation Plan appendix of the final report, which can be shared with the City as soon as it is complete.

- 3) Councilmember asked what the detention basin size was, and how much of an impact it would have on flooding.

The dimensions of the detention basin used in the initial DB4 design are as follows:

Detention Basin 4		
Design Volume	DB Area (Ac)	8.9
	DB Base Elevation (ft)	550.0
	Embankment Elevation (ft)	563.0
Inlet Design	Inlet Control Weir Elevation (ft)	557.5
	Weir Length (ft)	125.0
Outlet Design	Outfall Pipe Diameter (ft)	3.0

The main goal is to maximize storage volume. The constrained components of the design are the area available at its location (8.9 Ac) and the maximum depth that the utilities will allow. The optimized components are the weir elevation and length, as well as the outfall pipe diameter.

The effect of DB4 is both upstream and downstream; more so downstream into University City. For the 10-year storm event, the highest water level reduction of 2.6 ft is immediately downstream of DB4. A reduction of 1.2 ft is 1 mile downstream of DB4. A reduction of 0.5 ft is 2 miles downstream of DB4. At the Purdue Avenue gage, approximately 3 miles downstream of DB4, the reduction is 0.34 ft. At the Pennsylvania Avenue bridge, approximately 3.8 miles downstream, the reduction is 0.3 ft. The reduction is lessened due to the bridge capacity at certain locations.

- 4) Councilmember asked about the development of the two comparative tables on Slide 12.

The same criteria were applied to both alternatives, i.e. 2+ feet flooding of a residential structure -> elevation, -1 to 0 ft flooding of a residential structure -> fill basement, etc. The table on the left includes fewer structures because DB4 reduces the flood stage downstream, so that fewer structures were impacted by flooding.

DB4 plus nonstructural (“mixed plan”) – New NED plan

# Structures			
Elevation (residential)	Dry Floodproof (non-residential)	Fill Basement (residential)	Acquisition
0	19	22	7
Total			48

Nonstructural only (“mixed plan”)

# Structures			
Elevation (residential)	Dry Floodproof (non-residential)	Fill Basement (residential)	Acquisition
0	43	37	39
Total			119

- 5) Mayor asked about what involvement the City Council would have with the City of Overland Council for the detention basin decision.

The City of Overland owns the Woodson Road Park land and is currently under an agreement with the National Parks Service (NPS, under the Department of the Interior) to manage that land for recreation. To move ahead with constructing DB4, Overland would need to request that the NPS repurpose the land for a “higher use” of life safety. USACE and University City would likely need to provide support for the documentation needed for this process. Then, University City would conduct an appraisal and acquire the land so that DB4 could be constructed. Additional details on coordination with Overland have yet to be determined. Members of the USACE study team plan to attend Overland’s November 8 City Council meeting to brief on the study and DB4 and request a motion to support further exploration of DB4 feasibility.

- 6) Commissioner asked about the flexibility of usage of funds once approved but not utilized on nonstructural option properties, in other ways or for similar purposes under the plan.

The study team does not currently have a good answer for this but will find this information as soon as possible. What is known is that coming out of a study, adjustments can be made when implementing the recommended plan, up to a point. The law limits the extent of the changes to a 20% scope change, which can be defined by a several parameters including cost, outputs, environmental impacts, or other metrics.

- 7) Councilmember asked which nonstructural measures were voluntary and which were mandatory.

Floodproofing, filling basements, and elevation are voluntary. Acquisition (buyouts) are the only measure that is mandatory, per USACE policy. This means that University City would be required to use its condemnation authority for acquiring properties where a settlement between University City and the landowner could not be reached.

- 8) Councilmember asked for additional explanation on why homes with 0-2 ft of flooding above the first floor were excluded from the updated nonstructural analysis.

Earlier analysis for the previous Alternative 7 (Elevation Only) showed elevating those structures was too expensive relative to the benefit. The 2 feet cutoff was geared toward inclusivity, trying to reduce risk to more people while balancing with cost efficiency.

After consulting with nonstructural professionals both in the Corps and private companies, there are only three ways to passively mitigate a residential structure with 0-2 ft. of flooding above the first floor. Those are: 1. Elevate the property, 2. Buyout the property, and 3. Install passive barriers that will keep water out of the structure (aka dry floodproofing) to narrowly defined structures.

Both the elevation and buyout methods are cost-prohibitive, meaning that the cost of mitigation far exceeds the cost of the benefits yielded from the mitigation method. The passive barrier is a bit more complicated. Because of the flashy nature of the flooding (meaning that flood waters arrive very quickly), active barriers (meaning barriers that require action by the homeowner to install) are not possible. There is a product that uses floodwater to apply pressure just outside of the front door to lift a wall (barrier) out of the ground and seal the front door, thus preventing water from entering the first floor through the doorway. However, the building must have a certain kind of construction, i.e. solid brick or stone that is waterproof already; on a traditional framed home with siding or any other kind of porous material, water would simply seep into the home everywhere except the door frame. This type of mitigation is very expensive not only for the product itself but the installation and maintenance of the product as well. Even without in-depth analysis, this technique also appears to be cost-prohibitive.

- 9) City Manager asked what the cap for federal funding would be for an LPP more expensive than the TSP.

If the LPP is more expensive than the TSP, the federal cost share of 65% would be capped at 65% of the total cost of the TSP and the Non-Federal Sponsor would fully cover the remaining cost.

- 10) Question was asked about the timeframe for approval of the study through Congress.

In the conventional process, from the time a study is complete to when authorization is in place and seeking appropriation is approximately three years, and we're about one year out from study completion. So the best estimate at the moment is four years from now. This is, however, just an estimate as USACE receives all construction authority and funding through Congress (typically in infrastructure bills and Water Resources Development Acts (WRDAs)).

RIVER DES PERES, UNIVERSITY CITY, MO

General Reevaluation Report

Update to University City City Council

October 25, 2021



US Army Corps
of Engineers®



Photo: University City, 2019. Inset: KSDK, 2019



Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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AGENDA

1. Overview
2. Refined TSP -> new NED Plan
3. Locally Preferred Plan (LPP) information
4. Cost Share and Funding Options
5. Schedule
6. Discussion



Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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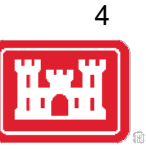
Study Schedule (current)

Start date (funding received)	29 April 2020
Alternatives Milestone Meeting (AMM)	25 August 2020
Public Scoping Meeting	30 September 2020
Tentatively Selected Plan (TSP) Meeting	26 May 2021
Draft Report Released to the Public	July 2021
Public Meeting	July 2021
Agency Decision Milestone (ADM)	30 November 2021
Final Report Submitted for Approval	September 2022
Report Approval (Chief's Report)	April 2023

Push to
Feb 2022
if LPP
requested



Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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Public Review of Draft Report

The Draft Report went out for public review on July 26, and two Public Meetings were held (July 26 and August 17)

No public comments were received via email during the public review period; comments and questions received in the Public Meetings were considered and will be included in a Final Report appendix



Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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Recap of the Tentatively Selected Plan (TSP) *(numbers from May 2021)*

River Des Peres Nonstructural Alternative Map - Combination



Features:

- ~500 residential structures in 4% AEP (25-year) floodplain; most floodproofed, ~7 elevated
- Height of elevation/floodproofing: 1% AEP (100-yr)
- No acquisition (not cost-effective in comparison)

Level of risk reduction: 4% AEP (25-yr)
 Total Cost: \$69M
 Net Annual Benefits: **\$1.7M (1st – highest)**
 BCR: 1.67

To be refined in next steps of the study:

- Optimized flood risk level for benefits, eg flood event smaller than 25-year
- Participation rate
- Cultural resources impacts (historic structures)
- Floodproofing types
- Possible inclusion of Detention Basins 3 & 4



Overview

Refined TSP/
New NED Plan

LPP Information

Cost Share &
Funding Sources

Schedule

Discussion



For further eval.: Detention basins *(numbers from TSP Milestone, May 2021)*



River Des Peres Detention Basin Alternative

Features:

- 2 locations: DB3 and DB4
- Dry detention for maximum storage during storms
- Recreation & naturalized features TBD

Level of risk reduction: 50% (2-yr) to 10% AEP (10-yr)

3.a. DB3 and DB4

Total Cost: \$43M

Net Annual Benefits: \$724,000 (3rd highest)

BCR: 1.33

3.b. DB4 only

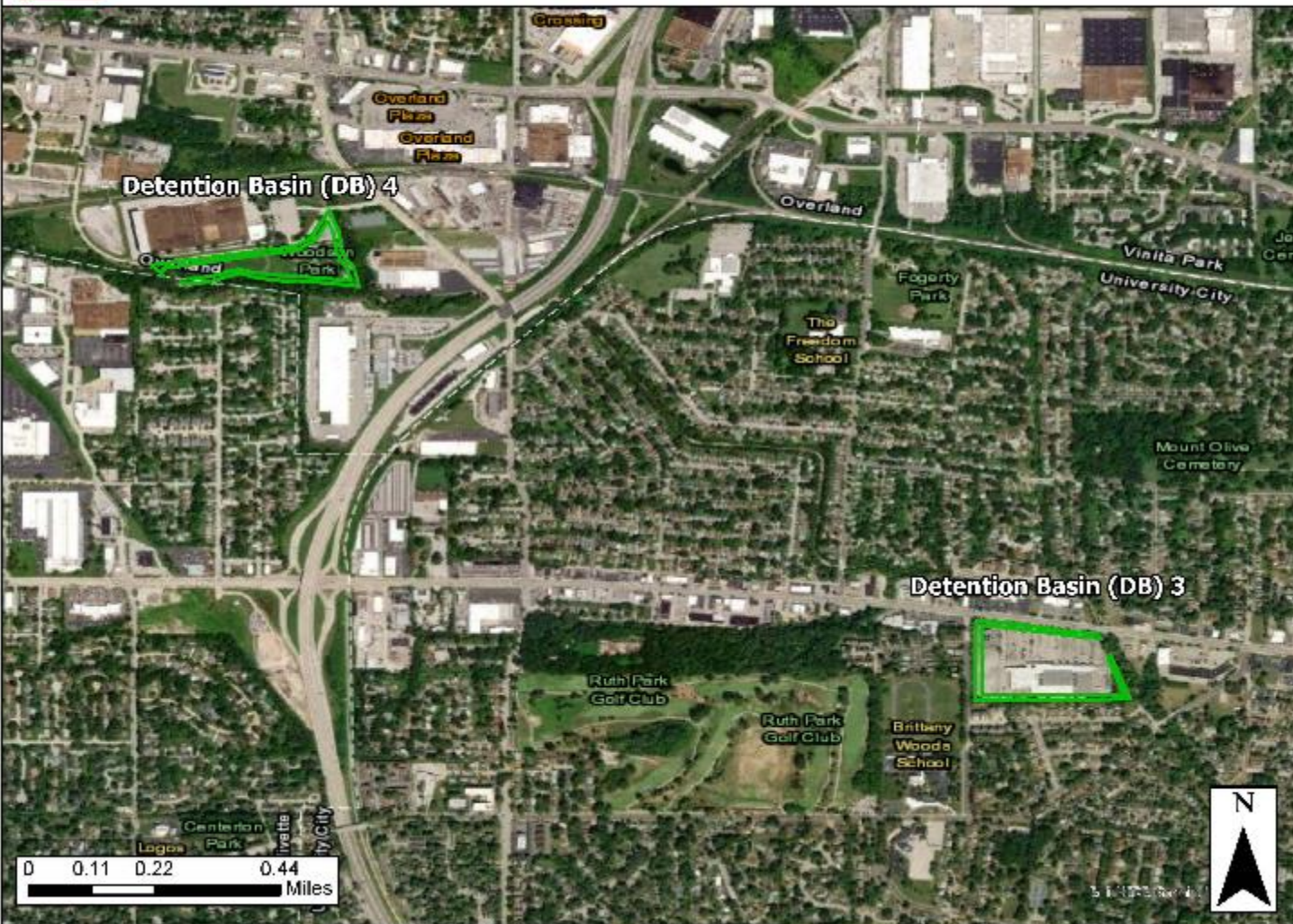
Total Cost: \$9M

Net Annual Benefits: \$1.2M (2nd highest)

BCR: 2.98

Study risks/uncertainty:

- DB4 location in City of Overland; coordination needed
- DB3 location – Asian businesses, amenity
- Compatible recreation features
- Life safety risk – needs further study





Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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Refinement of the Tentatively Selected Plan (TSP)

- Updated costs of alternatives following internal Agency Technical Review and Division-level Legal & Policy Review
- Further refinement of the nonstructural TSP included:
 - ❖ Refining treatments applied to eligible structures with certain depths of flooding
 - ❖ Assessing 10-year flood event structure damages & benefits
 - ❖ Changes to the way structures were aggregated, based on input from the USACE Flood Risk Management Planning Center of Expertise
 - ❖ Review of land agreement for DB4 site (City of Overland agreement with DOI for Woodson Road Park)



Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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Updated costs of alternatives

- Alternatives costs were updated following internal Agency Technical Review and Division-level Legal & Policy Review

Ranked by Net Annual Benefits:

#4

#2

#5

#3

#1

	Detention Basins 3 and 4	Detention Basin 4	U12 w/ Detention Basins 3 and 4	Nonstructural Only	Nonstructural and Detention Basin 4
Total Project Costs					
First Cost	\$ 50,707,000	\$ 9,457,000	\$ 65,924,000	\$ 21,821,000	\$ 22,064,000
Interest During Construction	\$ 1,730,000	\$ 213,000	\$ 2,249,000	\$ 492,000	\$ 497,455
Total Investment Cost	\$ 52,437,000	\$ 9,670,000	\$ 68,173,000	\$ 22,313,000	\$ 22,561,455
Estimated Annual Costs					
Annualized Project Costs	\$ 1,758,000	\$ 324,000	\$ 2,285,000	\$ 748,000	\$ 756,000
Annual OMRR&R	\$ 20,000	\$ 10,000	\$ 30,000	\$ -	\$ 10,000
Total Annual Costs	\$ 1,778,000	\$ 334,000	\$ 2,315,000	\$ 748,000	\$ 766,000
Average Annual Benefits					
Total Annual Benefits	\$ 2,436,000	\$ 1,222,000	\$ 2,734,000	\$ 1,314,000	\$ 1,934,000
Net Annual Benefits	\$ 658,000	\$ 888,000	\$ 419,000	\$ 566,000	\$ 1,168,000
Benefit to Cost Ratio	1.37	3.66	1.18	1.76	2.52
Residual Risk	\$ 2,716,000	\$ 3,930,000	\$ 2,418,000	\$ 3,838,000	\$ 3,218,000

NED Plan: highest Net Annual Benefits

Numbers are not final: One additional cost update needed (revised non-residential floodproofing cost); should not change totals much.



Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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Nonstructural – Refining treatments applied to eligible structures

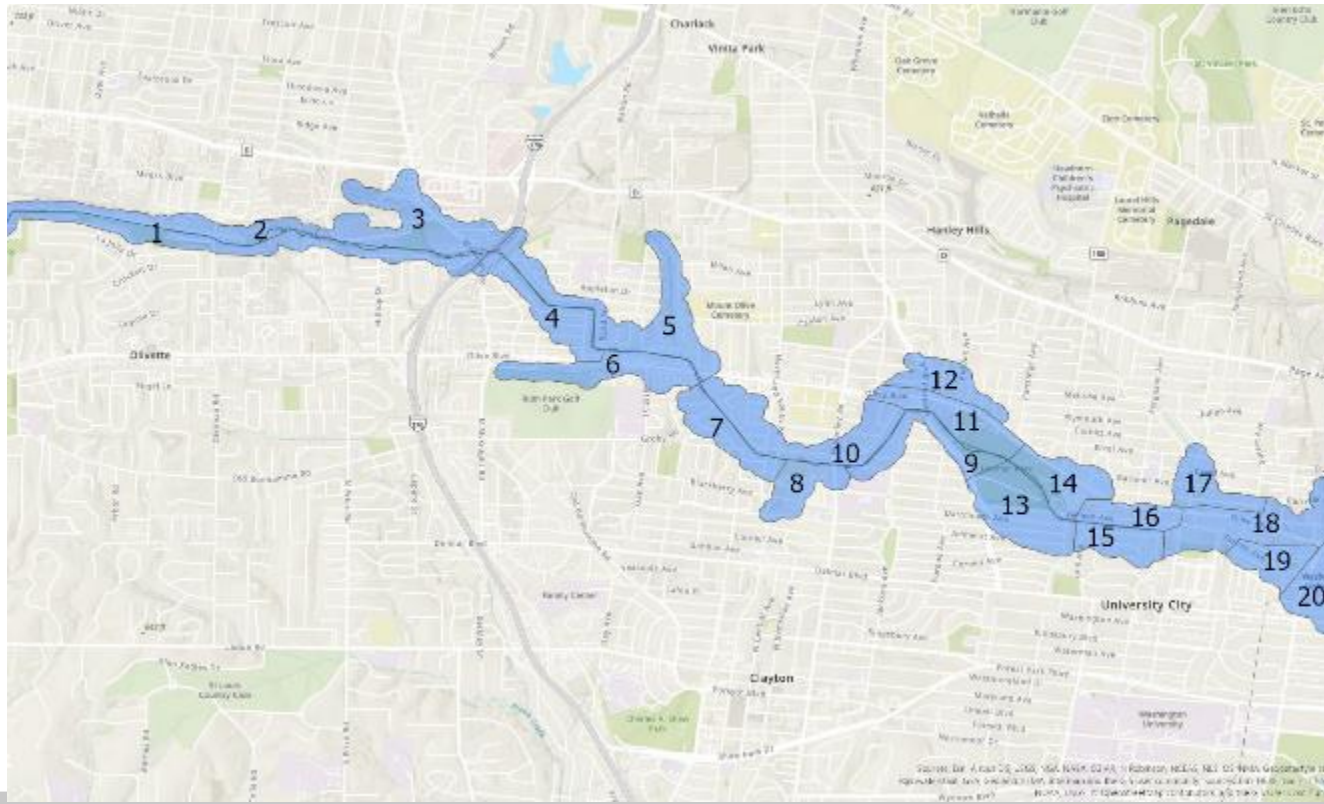
1. Residential with flooding 2+ feet relative to the first floor → Elevation
 2. Residential with -1 to 0 ft flooding relative to the first floor → Fill basement
 3. Nonresidential flooding up to 3 feet above first floor → Dry floodproofing
 4. Any structure for which cost of treatment exceeds buyout cost → Acquisition
- Commission – concerned about residential structures with 0-2 ft flooding relative to the first floor
 - Economist – Analysis for earlier Alternative 7 (Elevation Only) showed elevating those structures was too expensive relative to the benefit. The 2 feet cutoff was geared toward inclusivity, trying to reduce risk to more people while balancing with cost efficiency.



Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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Nonstructural - Aggregation of structures

- Criteria used to define reaches: City boundaries (U City, Overland, St. Louis); left bank/right bank; residential vs. non-residential; Historic District boundaries
- 20 reaches identified
- The 10-, 25-, and 50-year flood events were applied to each reach; different events maximized benefits in each reach





Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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Nonstructural – Aggregation optimized for each reach (the “mixed plan”)

Reach	Annual Exceedance Probability Aggregation	Elevation	Floodproof	Fill Basement	Acquisition	Total
1	No Action	0	0	0	0	0
2	10-Year	0	1	0	0	1
3	50-Year	0	1	0	0	1
4	No Action	0	0	0	0	0
5	10-Year	0	1	10	0	11
6	No Action	0	0	0	0	0
7	No Action	0	0	0	0	0
8	No Action	0	0	0	0	0
9	10-Year	0	0	1	0	1
10	10-Year	0	0	6	2	8
11	10-Year	0	4	0	0	4
12	50-Year	0	0	3	1	4
13	No Action	0	0	0	0	0
14	25-Year	0	7	0	0	7
15	No Action	0	0	0	0	0
16	25-Year	0	0	2	4	6
17	No Action	0	0	0	0	0
18	No Action	0	0	0	0	0
19	No Action	0	0	0	0	0
20	50-Year	0	5	0	0	5
Total	Mixed Plan	0	19	22	7	48

Table to left shows aggregation optimized for each reach in the DB4 + Nonstructural alternative (the new NED Plan).

10 reaches optimized for “No Action”; don’t have positive net annual benefits with nonstructural treatments applied



Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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Number of structures in new NED Plan

DB4 + Nonstructural (“mixed plan”)

# Structures			
Elevation (residential)	Dry Floodproof (non-residential)	Fill Basement (residential)	Acquisition
0	19	22	7
Total			48

Elevation was not cost effective for any structures; the cost went up and properties previously IDed for elevation would be cheaper to acquire

Includes fewer structures than Nonstructural Only because DB4 reduces the flood elevation

Compare with Nonstructural Only (“mixed plan”)

# Structures			
Elevation (residential)	Dry Floodproof (non-residential)	Fill Basement (residential)	Acquisition
0	43	37	39
Total			119

Elevation was not cost effective for any structures; the cost went up and properties previously IDed for elevation would be cheaper to acquire



Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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New NED Plan Summary

DB4 + Nonstructural (“mixed plan”)

- DB4 constructed at Woodson Road Park (Overland)
- 19 nonresidential structures with 0-3 ft flooding relative to the first floor -> dry floodproofed
- 22 residential structures with 0 to -1 ft flooding relative to the first floor -> fill basement
- 7 structures with nonstructural cost exceeding acquisition cost -> acquisition

- Total First Project Cost: \$22M

- Net Annual Benefits: \$1.2M
- Benefit-to-Cost Ratio: 2.52

Map will be created & provided shortly



Coordination with the City of Overland re DB4

Site visit & Meeting held July 8; follow-up email communication

Woodson Road Park Agreement with Department of the Interior (DOI) provided to USACE

- USACE Real Estate determined path forward of repurposing site

Packet of information being developed to share with Overland City Council

Request made for verbal confirmation, letter of support, or motion passed within 1 month (by Nov. 15)

Will attend November 8 Overland City Council Meeting

Proposed DB4 footprint





Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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Survey

How we got here...

- Commission & City interested in gaging citizen interest in floodproofing & elevation (TSP) to estimate voluntary participation
- Commission developed 4-question survey; hoping for response data by mid-October
- Initial USACE understanding was that this would be fine
- USACE policy restricting involvement in surveys got in the way; suggested support from SEMA

Current status:

- University City survey to be conducted as part of Stormwater Plan process; survey not “in support of” study; USACE not involved



Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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Locally Preferred Plan (LPP) information

- University City as the Non-Federal Sponsor may select an LPP different from the NED Plan
- The LPP must meet several criteria to be approved
- If the LPP is clearly SMALLER than the NED Plan (less scope and cost):
 - In all cases, the LPP must have **greater net benefits than smaller scale plans**. I.e. there is a smaller scale (less expensive) plan with less net benefits.
 - The feasibility report must document the rationale for lack of sponsor support for the NED plan; available facts regarding how and why the LPP is less costly and **still provides high-priority outputs**; information to show that **alternative non-Federal funding sources are not available**; the analysis performed; documentation to demonstrate that sufficient alternatives were formulated and evaluated to insure that net benefits do not maximize at a scale lower than the LPP and to **meet the requirements of NEPA**; and the consequences of lost opportunities associated with implementing a LPP including **residual risks** and potential solutions to other water resource needs and opportunities that may be foregone.
 - If the LPP meets the Administration's policies for high-priority outputs, an exception for deviation is usually granted by ASA(CW).
- If the LPP is LARGER than the NED Plan, several other criteria apply and the Sponsor must pay the difference between the cost of the LPP and the NED Plan
- The more different the LPP is from the NED Plan, the more time and effort required to get it approved, and the higher the potential the study will run out of funding



Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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What might the City want in an LPP?

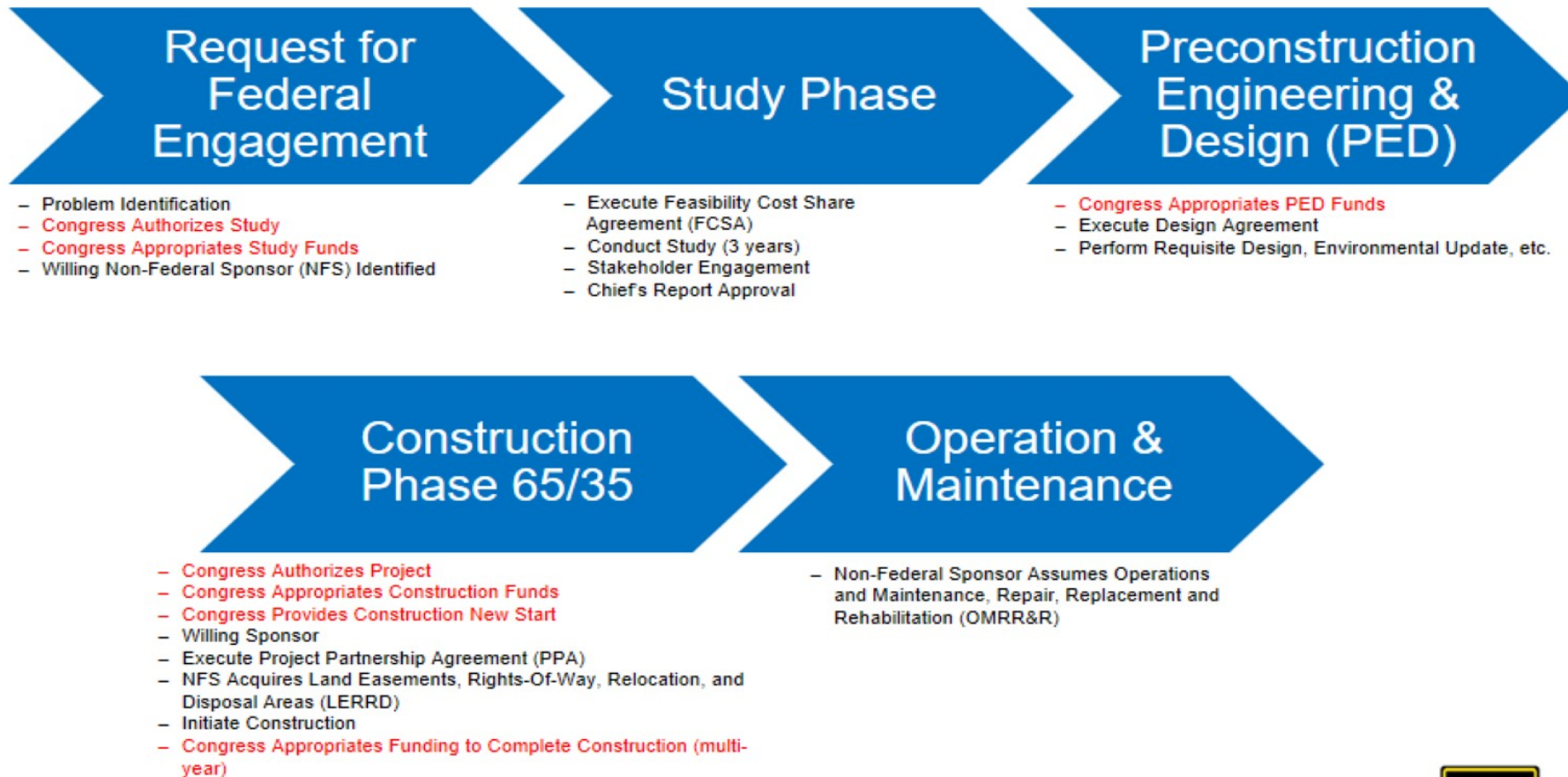
Ideas already generated by the study team & Commission:

- Scaled-down version of the nonstructural mixed plan, with fewer structures (e.g. fewer/zero acquisitions, or only including structures impacted at the 10-year event)
- Add residential structures with 0-2 ft flooding relative to the first floor
- Eliminate structures in reaches outside U City (i.e. structures in Overland and St. Louis)*
- A different alternative, e.g. U12 channel & bridge modifications with DB3 & DB4
- Move Detention Basin 3 to another location within University City
- Other ideas?

*A Sponsor-recommended change to the NED Plan like this may be supported with rationale



CIVIL WORKS PROJECT DELIVERY PROCESS





Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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Funding options to support the Non-Federal cost share

Mr. Shawn Sullivan, Strategic Planning Coordinator (USACE), presented at Technical Meeting on 8/23/2021

Slides were sent to City and Commission representatives 8/23/2021

Funding source examples identified included:

- Brentwood Bound – Certificates of Participation, Economic Development Sales Tax, & additional funding from grants and partnerships
- Metro East Levees – State of Illinois approved ¼ cent sales tax
- Eureka, MO – Proposition E passed 2018 adds a ½ cent sales tax over 20 years
- Yarnell Creek, Fenton, MO – Parks/Storm Water half percent sales tax
- BRIC Notice of Funding Opportunity - \$1 billion available
- Missouri Department of Economic Development – Community Development Block Grants, \$41.5M available



Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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Costs – Federal and Non-Federal share

Federal cost: 65% of Total First Project Cost

Non-Federal Sponsor cost: 35% of Total First Project Cost

Example: New NED Plan Total First Project Cost:	\$ 22M
Federal share:	\$ 14.3M
<u>Non-Federal share:</u>	<u>\$ 7.7M</u>

Cost to the homeowner or renter: TBD; Sponsor may choose to pass on some costs to owners

Relocation costs for all renters will be covered

Relocation costs for owners whose structures will be acquired will be covered

Compensation will be provided for the loss of basement or living space



Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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“Optimistic Schedule” leading up to the Agency Decision Milestone (ADM)

Dates are deadlines, not start dates. 1.5 months total.

1. *Real Estate costs & floodproofing costs to Jordan – October 15*
2. *‘Final’ nonstructural & DB4 + nonstructural alternatives (NED plan) – October 19*
3. *Historic structures letter to SHPO – October 20*
4. *Commission meeting to discuss ‘final’ alternatives – October __ (TBD)*
5. **City Council meeting – Present NED plan & funding options – October 25**
6. **Participation sensitivity analysis – Nov 1**
7. **Commission meeting – Nov 2**
8. **City Council meeting – (Preferred) Initial Deadline for Decision on TSP/LPP – Nov 8**
9. **Letter/Motion from City of Overland re DB4 – Nov 15**
10. **Historic structures impacts & mitigation – Nov 16 (<30 days after letter to SHPO)**
11. **ADM Readaheds sent to MVD (incl. LPP waiver request if needed) – Nov 16**
12. **City Council meeting – Final Deadline for Decision on TSP/LPP – Nov 22 (verbal confirmation ok)**
13. **ADM – Nov 30 (City representatives to attend & provide Sponsor viewpoint)**



Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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Schedule changes if a Locally Preferred Plan is selected

Instead of the ADM meeting with the USACE vertical team, an In Progress Review (IPR) meeting will be held on 30 Nov.

An LPP Waiver will be submitted to the vertical team ASAP.

The ADM will be moved to February 2022 to allow time for HQ-USACE to review and approve the waiver.

Total HQ-USACE review/decision period is expected to be 6 months.



Overview	Refined TSP/ New NED Plan	LPP Information	Cost Share & Funding Sources	Schedule	Discussion
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Discussion & Questions

- What questions do you have for us?
- What are your concerns about the path forward?
- What information can we provide by/at the next meeting to better inform your decision?



Thank you!



Photo: St. Louis Post Dispatch

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