



PEN 1 • PEN 2 • MCDD • SDIC

Protecting lives, property and the environment through innovative, proactive floodplain management

Community Update Meeting on the Portland Metro Levee System

October 28, 2020

Welcome & Zoom Overview

Jamie Damon

Facilitator, Kearns & West



AGENDA



Agenda Item	Lead	Start Time
Welcome & Zoom Overview	Jamie Damon Facilitator, Kearns & West	5:30 p.m.
Why This Study Matters	Peggidy Yates Executive Director, MCDD	5:35 p.m.
Drainage District Board Role	Mike Wells Chair, MCDD Board	5:40 p.m.
Questions	Moderated by Jamie Damon	5:45 p.m.
Update on Refinements since the Tentatively Selected Plan	Laura Hicks & Ryan Cahill US Army Corps of Engineers	5:50 p.m.

AGENDA CONTINUED



Agenda Item	Lead	Start Time
Questions	Moderated by Jamie Damon	6:25 p.m.
What's Next: Timelines & Uncertainties	Colin Rowan Deputy Director, MCDD	6:35 p.m.
Questions	Moderated by Jamie Damon	6:45 p.m.
Closing & Next Steps	Jamie Damon Facilitator, Kearns & West	6:57 p.m.

Asking Questions



- Enter your questions in the chat, please start with your name
- All chats will go to the meeting administrators
- The moderator will read questions from chat in between speakers
 - If multiple people ask the same or similar questions, we will summarize so you may not hear your question verbatim
- We will try to address all questions
 - If there is not time to get to all the questions, we will try to address unanswered questions through the FAQ document that will be distributed in November

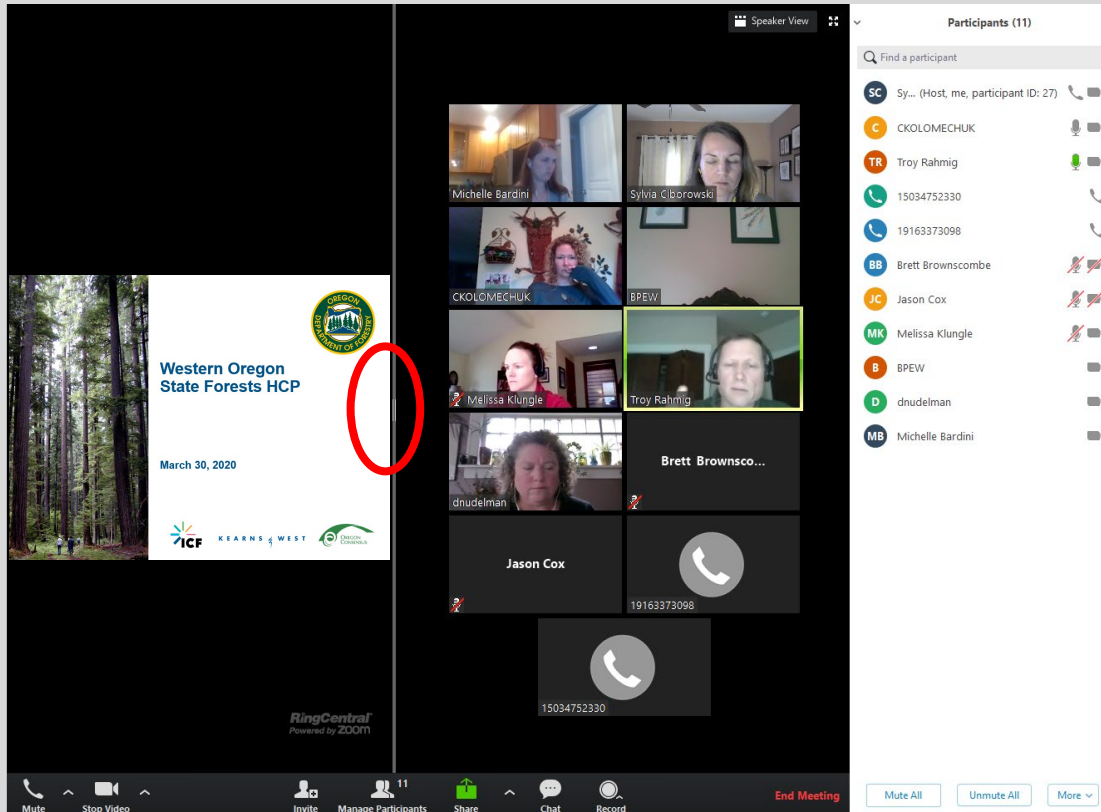
Asking Questions



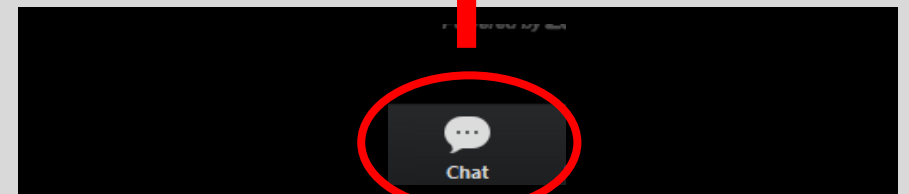
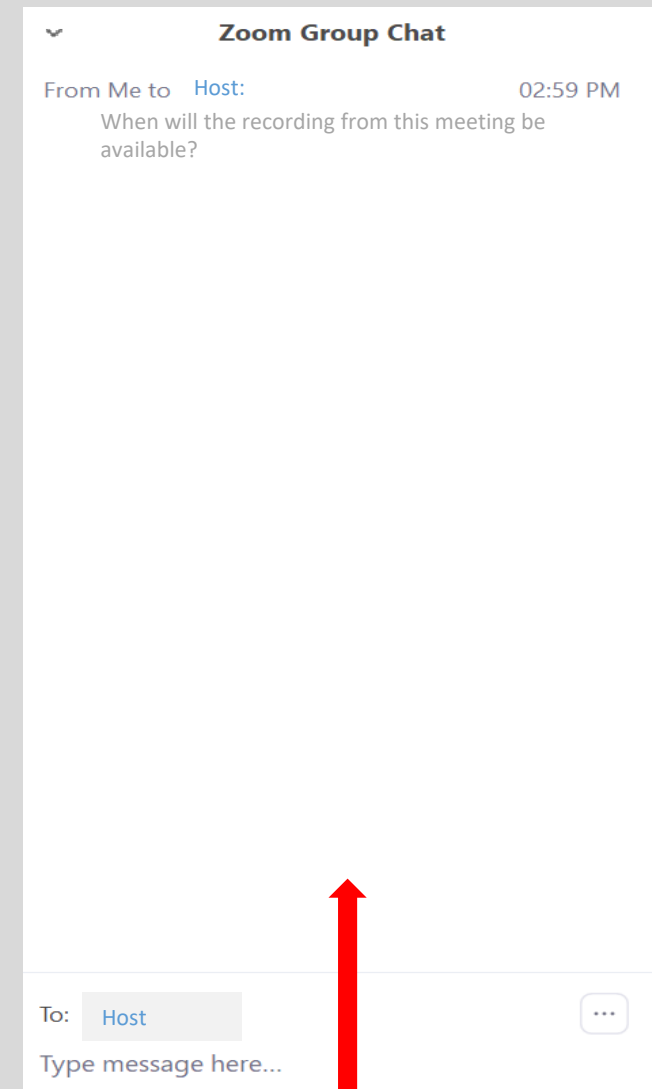
- If you do not have internet and have called into the meeting on a cell phone, you can text your questions to 971-285-0677
- Please be respectful of our speakers and of each other
- Only questions will be addressed
 - Opinions and commentary will not be read aloud during this meeting
 - A verbatim transcript of the chat will be available on the MCDD website after this meeting

Zoom Webinar Tips

1) Adjust video and shared document size



2) Chat





After this meeting

- Slides and recording of this meeting are available on the MCDD (www.mcdd.org) and USACE (bit.ly/usace-pmls) websites
- Written responses to FAQs will be distributed and available on the USACE and MCDD websites in November
- Next Update Meeting: Summer/Fall 2021

Why This Study Matters

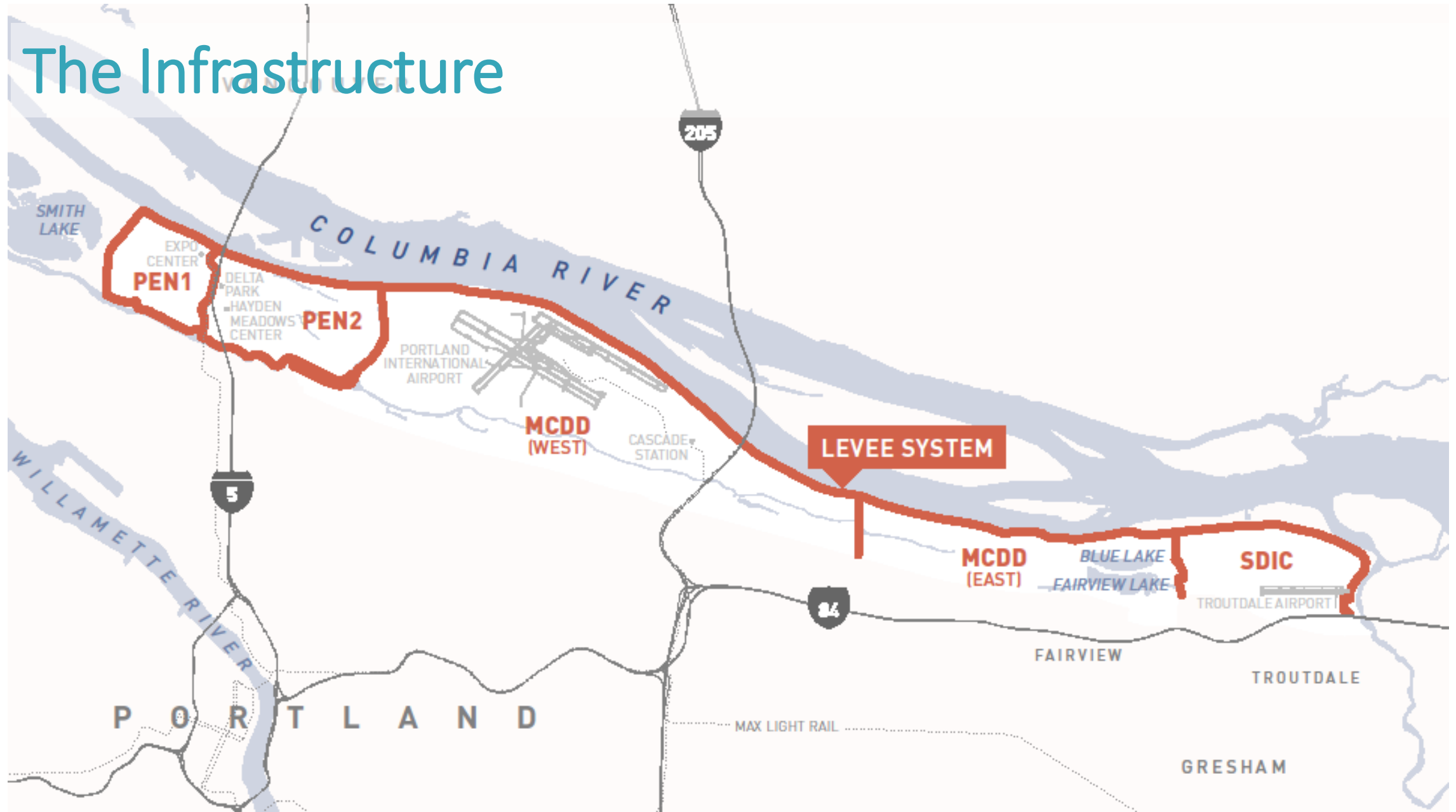
Peggidy Coffman Yates

Executive Director, Columbia Corridor Drainage Districts*

(Multnomah County Drainage District, Peninsula Drainage District #1, Peninsula Drainage District #2 & Sandy Drainage Improvement Company)

*Local/Non-Federal Sponsor of the Feasibility Study

The Infrastructure



There's a lot at risk



almost
8,000
residents



20 million
passengers annually at PDX



nearly
60,000
jobs



Drinking water for
1 million



about
2,000 acres
of parks & natural spaces



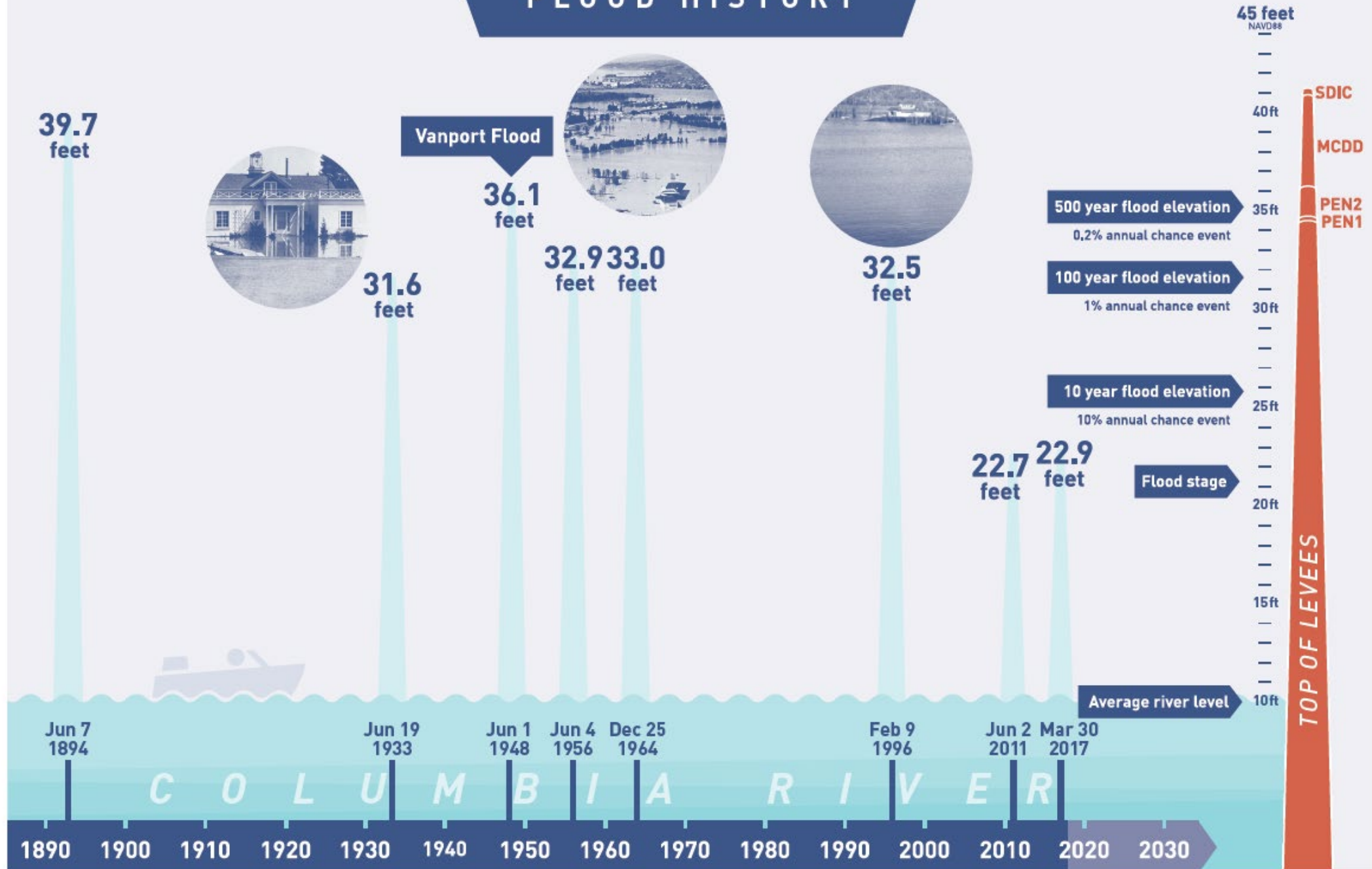
3 Major highways
(I-5, 1-205, I-84)



approximately
7.4 billion
in assessed property value



FLOOD HISTORY









What else to consider

- **Changed Conditions**

- Significant land use changes since the infrastructure was first constructed
- Continued investments are needed

- **Uncertain Future Conditions**

- Climate Change
- Columbia River Treaty

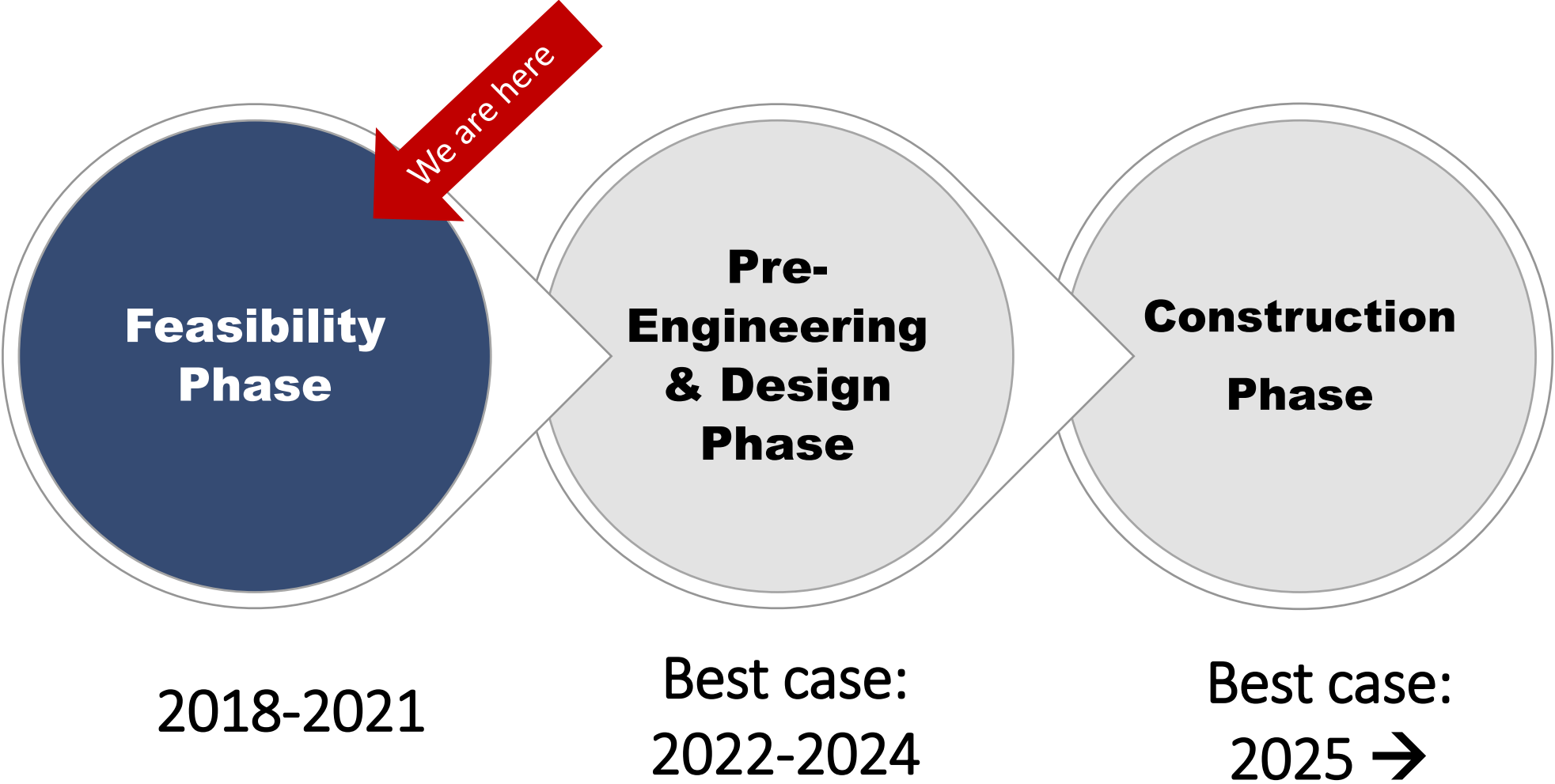


Drainage District Board Role

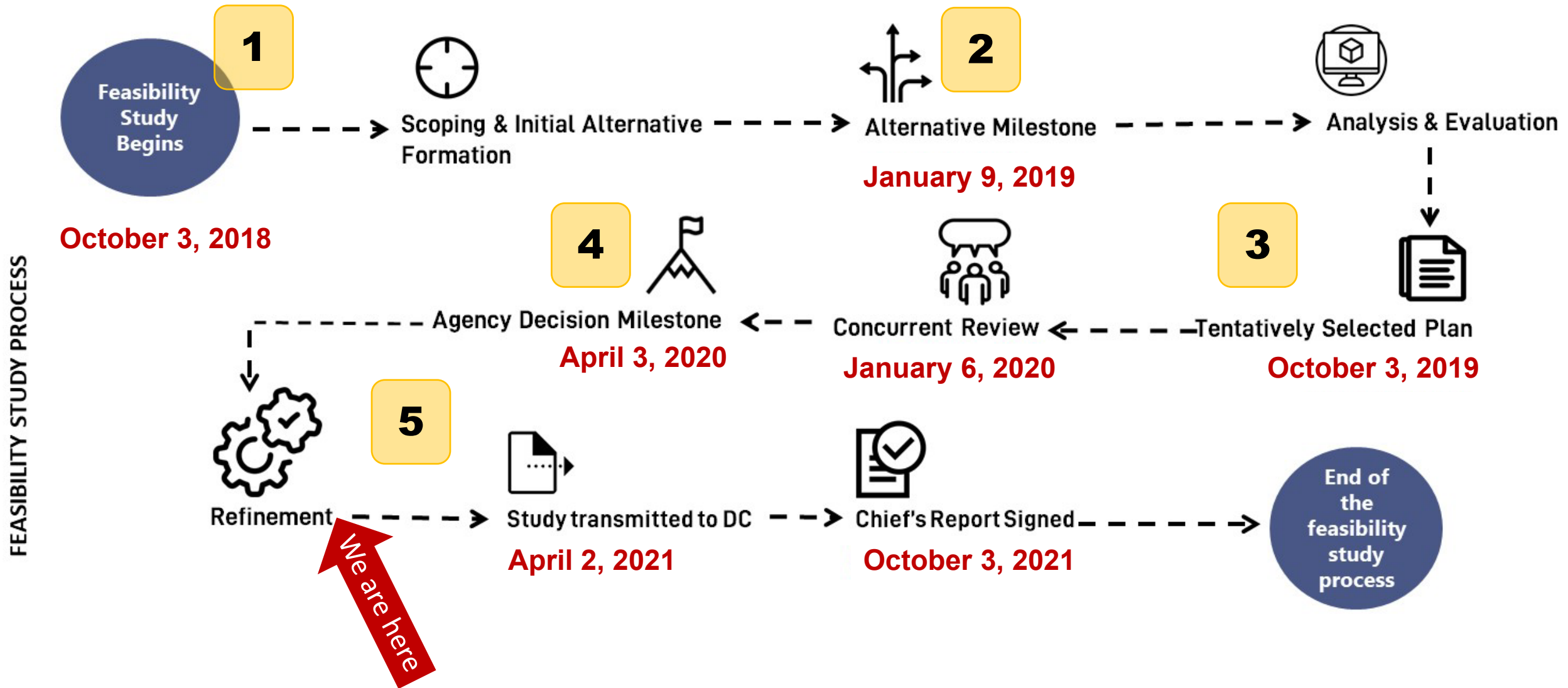
Mike Wells
Chair, MCDD



Federal Infrastructure Investment Process with the US Army Corps of Engineers



Feasibility Study Process & Local Sponsor Decisions

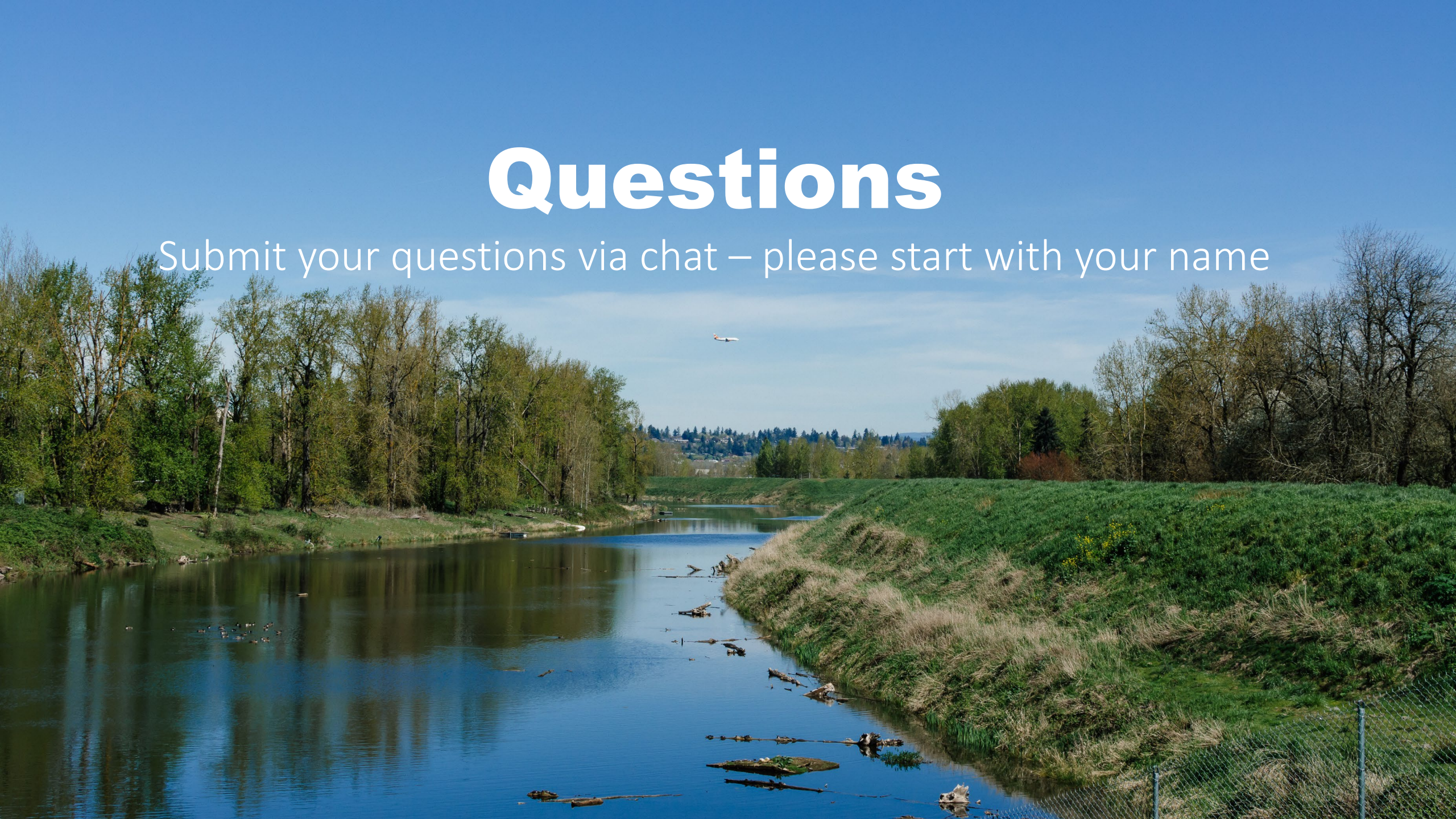


www.mcdd.org



Questions

Submit your questions via chat – please start with your name



Update on Refinements to the Tentatively Selected Plan

What's changed since we last met



Kevin Brice

Deputy District Engineer
US Army Corps of Engineers

Laura Hicks

Project Manager
US Army Corps of Engineers

Ryan Cahill

Technical Lead & Engineer
US Army Corps of Engineers

PORTLAND METRO LEVEE SYSTEM (PMLS) REFINEMENT UPDATE

<https://www.nwp.usace.army.mil/missions/projects-and-plans/portland-metro-levee-system/>

Portland District
28 October 2020



This information is pre-decisional

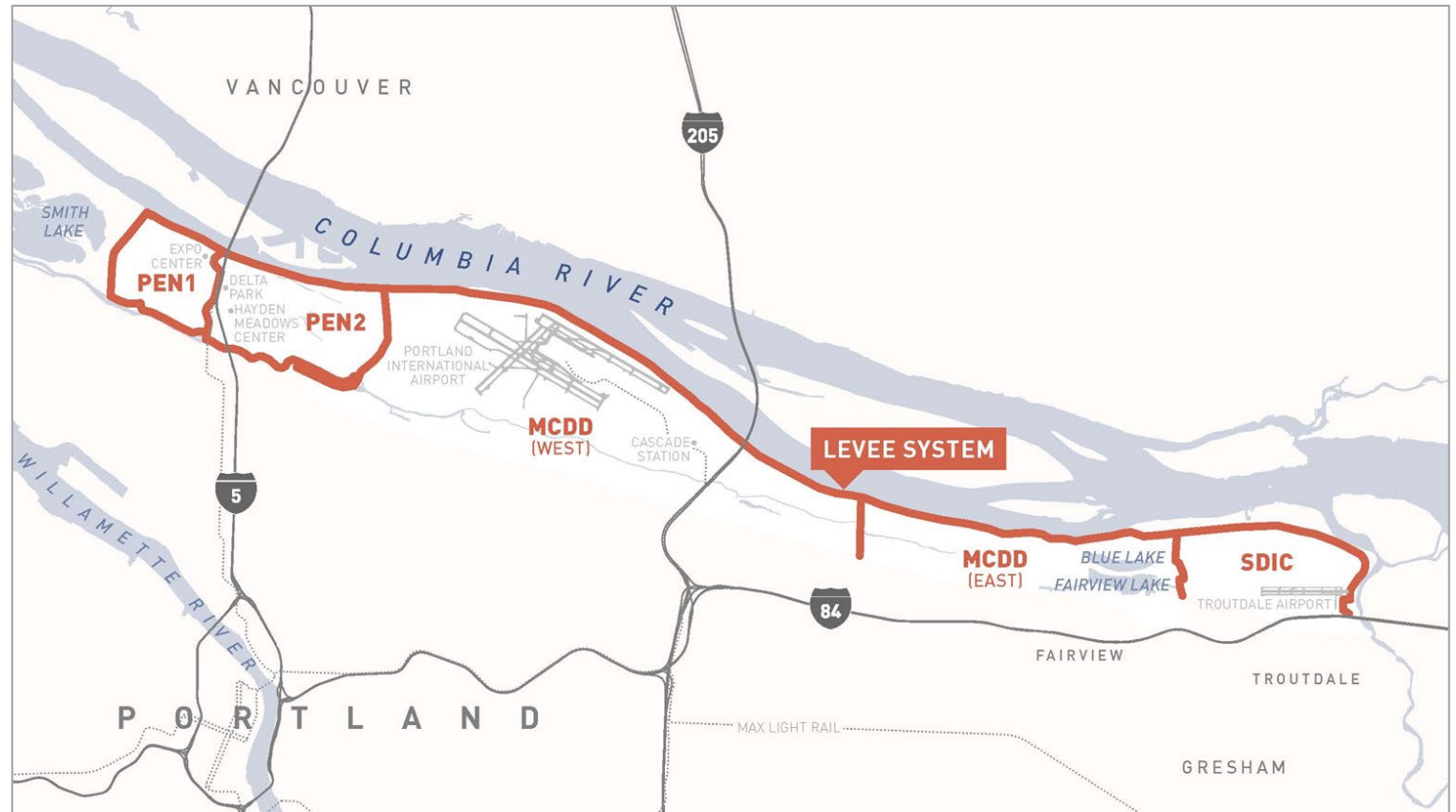


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CORPS PRESENTATION

1. Agency Decision Milestone
15 April 2020
2. What is the Corps working on now?
Refinements to Alternative 5
 - Hazardous, Toxic, and Radio-active Waste (HTRW)
 - Pump Stations
 - Height of Levee
 - Alignment



This information is pre-decisional



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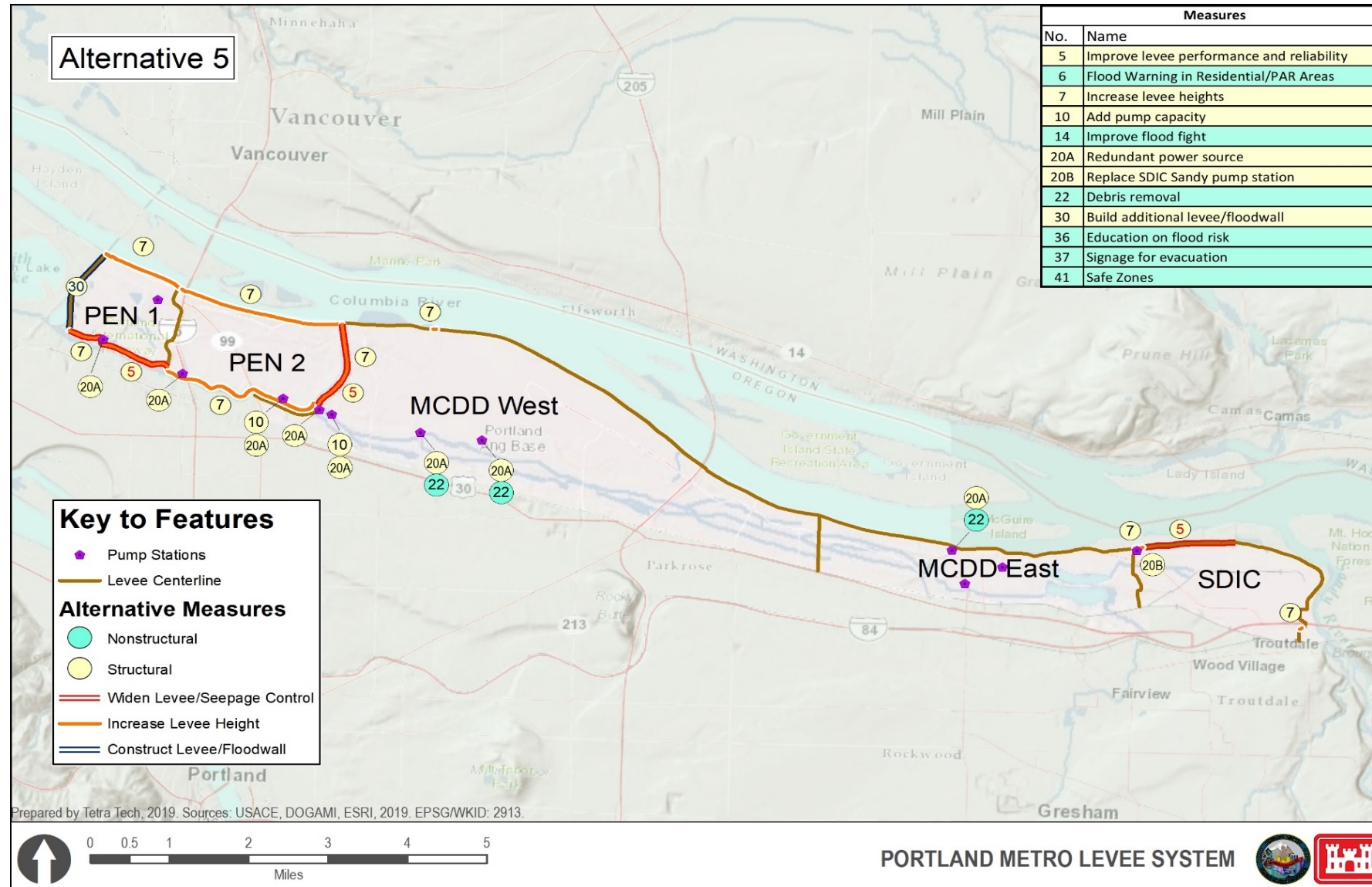


AGENCY DECISION MILESTONE

15 April 2020



PROPOSED IMPROVEMENTS IN DRAFT REPORT



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PUBLIC/AGENCY COMMENTS; SORTED BY 7 TOPIC AREAS:

1. Public Review Process
2. Alternative Selection
3. Natural Resources and Recreation
4. Design/Project Features
5. Neighborhood Livability
6. Study Authority
7. Water Quality/HTRW



This information is pre-decisional

NEIGHBORHOOD LIVABILITY COMMENTS FROM RESIDENTS

The same or similar comments were submitted by multiple commenters:

- Maintaining parking access
- Protecting neighborhood safety, emergency vehicle/increase homelessness occupation or vandalism
- Raising pilings needed for safe moorage
- Access to driveways and the river
- Home devaluation and compensation for such
- Views from homes
- Aesthetics of the new floodwall
- Changes to traffic patterns
- Construction duration and impacts from noise and traffic interruptions
- Dividing the neighborhood with a floodwall



This information is pre-decisional

CONCLUSION OF THE AGENCY DECISION MILESTONE

Corps Decision- Confirmation that the TSP (Alternative 5) is the plan to continue to refine and develop.

Agreement to invest additional federal funding for the feasibility study



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WHAT IS THE CORPS WORKING ON NOW?

This information is pre-decisional



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HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW)

This information is pre-decisional

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HAZARDOUS, TOXIC AND RADIO-ACTIVE WASTE (HTRW)

Number of Sites from 25 to 1

- Draft report listed 25 potential HTRW sites
- Furthered investigations have revealed cleanup has occurred on most of these sites
- The number of sites of concern has been furthered narrowed to 1

Remaining HTRW Sites



This information is pre-decisional

PUMP STATIONS

This information is pre-decisional



PROPOSED IMPROVEMENTS IN DRAFT REPORT

Measures included in the draft report released in January:

Replace pump station:

- SDIC

Increase pump capacity:

- 13th Ave
- Pump Station #2

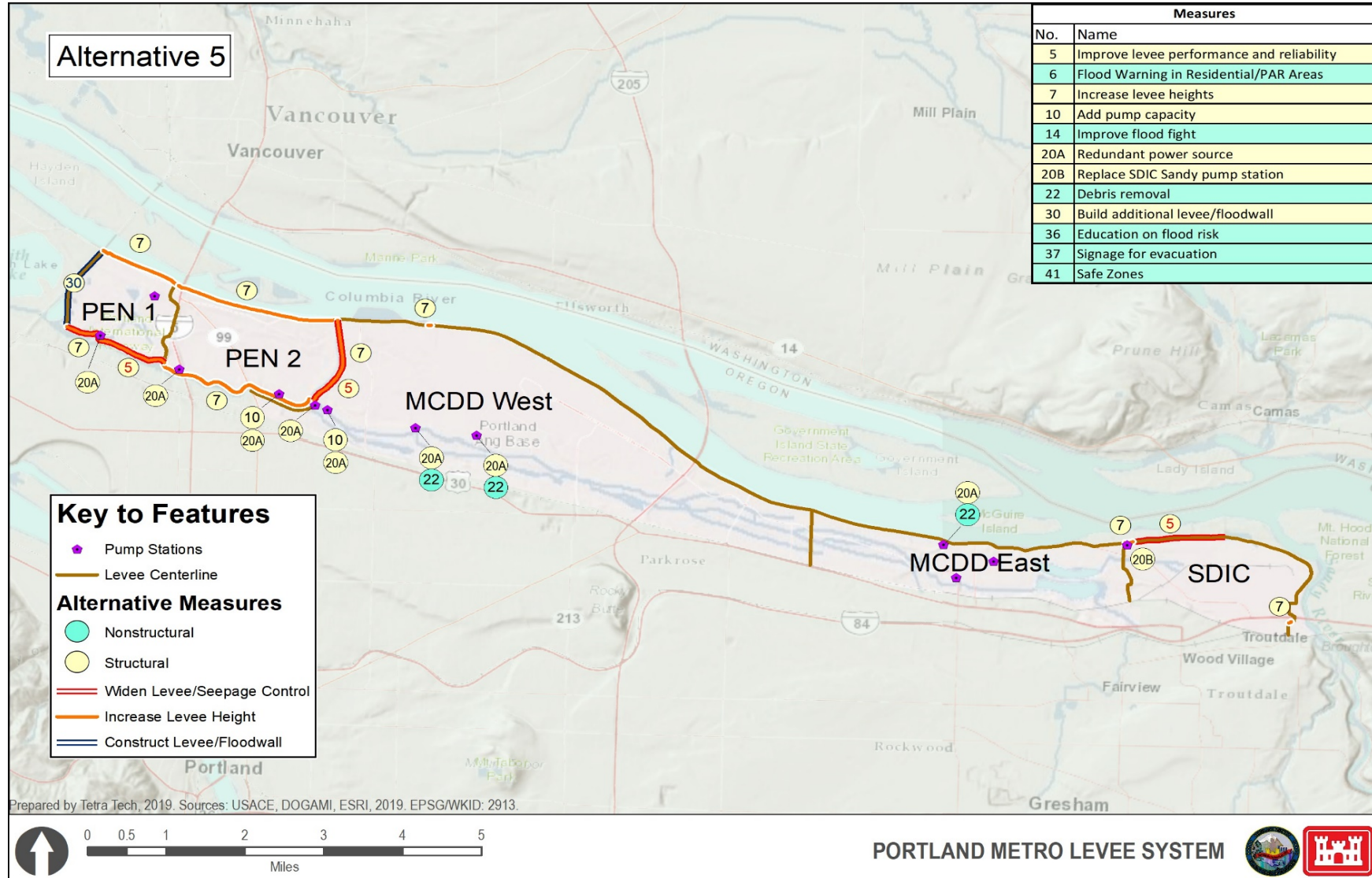
Trash rack/rake upgrades:

- Pump Station #4
- Broadmoor
- AirTrans

Redundant power source:

- All pump stations

This information is pre-decisional



CHANGES SINCE DRAFT REPORT RELEASED

Corps policy is to only consider interior drainage improvements that the construction of the levee system has blocked.

The Corps can only make improvements at pump stations to ensure stormwater is expelled from the system. Other improvements to the stormwater system are considered a local responsibility.

After further review, improvements to the Broadmoor and AirTrans pump stations do not meet Corps policy, since they route interior stormwater rather than expel it from the system.

As a result, Broadmoor and AirTrans were dropped from the Federal project. They will continue to be operated and maintained by MCDD.

This information is pre-decisional



CHANGES SINCE RELEASE OF DRAFT REPORT

Replace pump station:

- SDIC

Increase pump capacity:

- 13th Ave
- Pump Station #2

Trash rack/rake upgrades:

- Pump Station #4

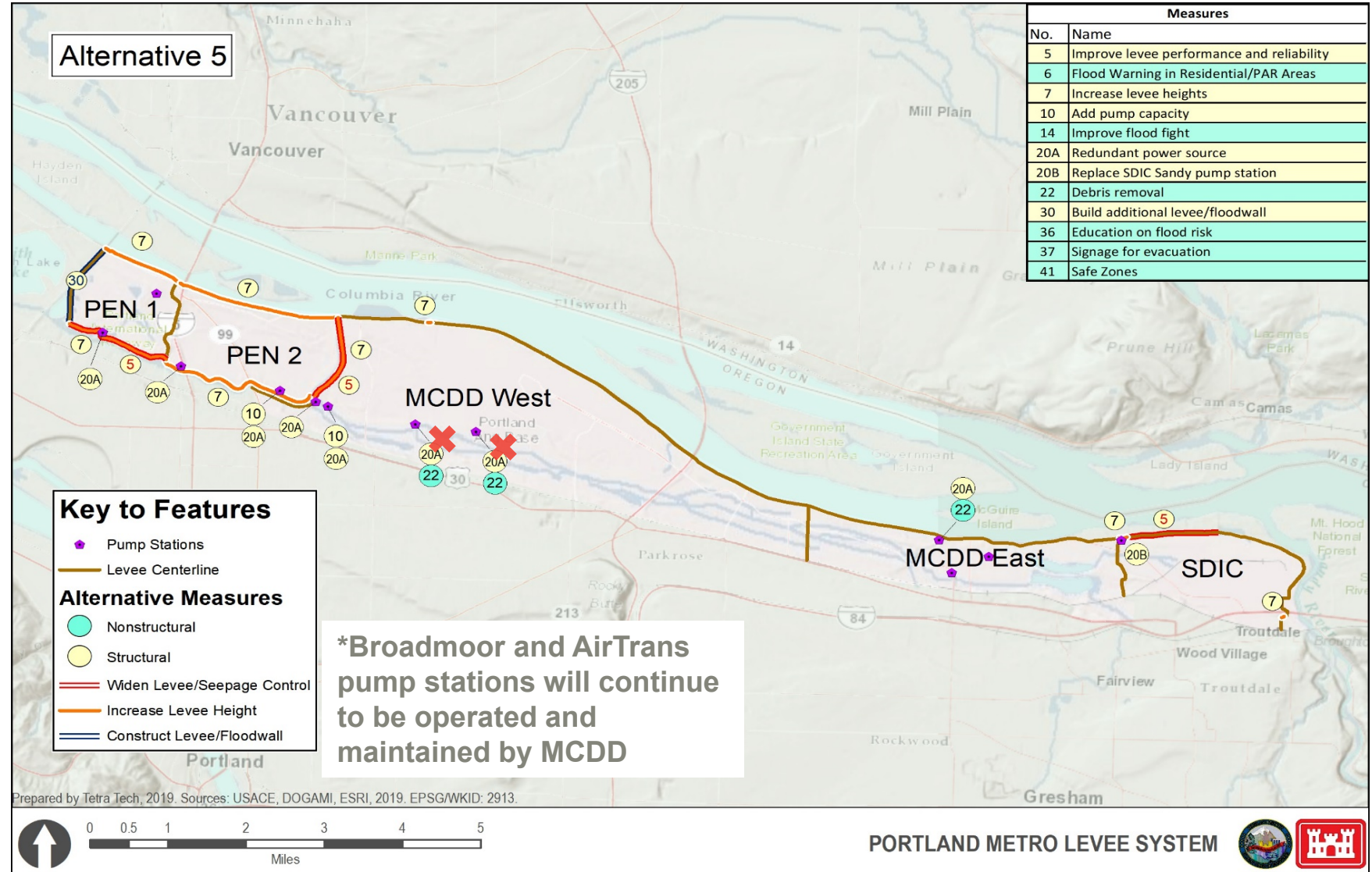
• ~~Broadmoor*~~

• ~~AirTrans*~~

Redundant power source:

- All pump stations

This information pre-decisional



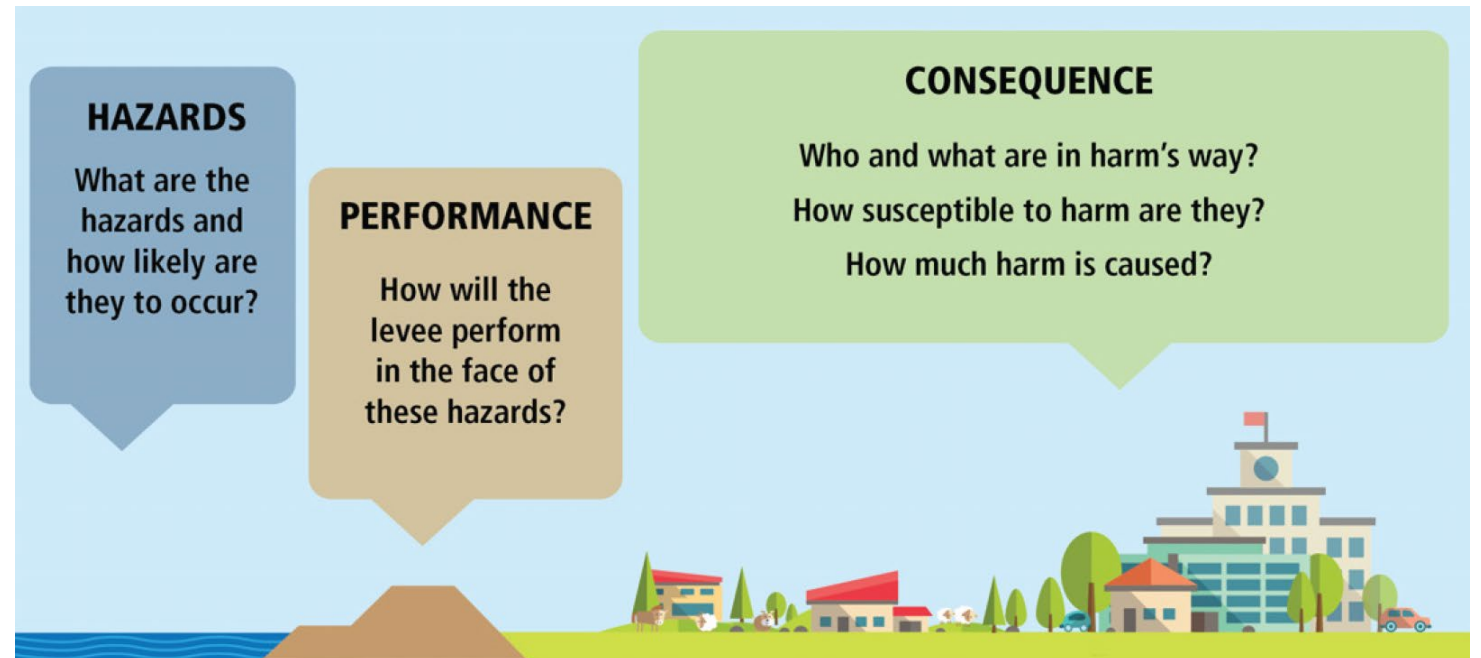
LEVEE HEIGHT

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REFINEMENTS OF LEVEE DESIGN HEIGHT

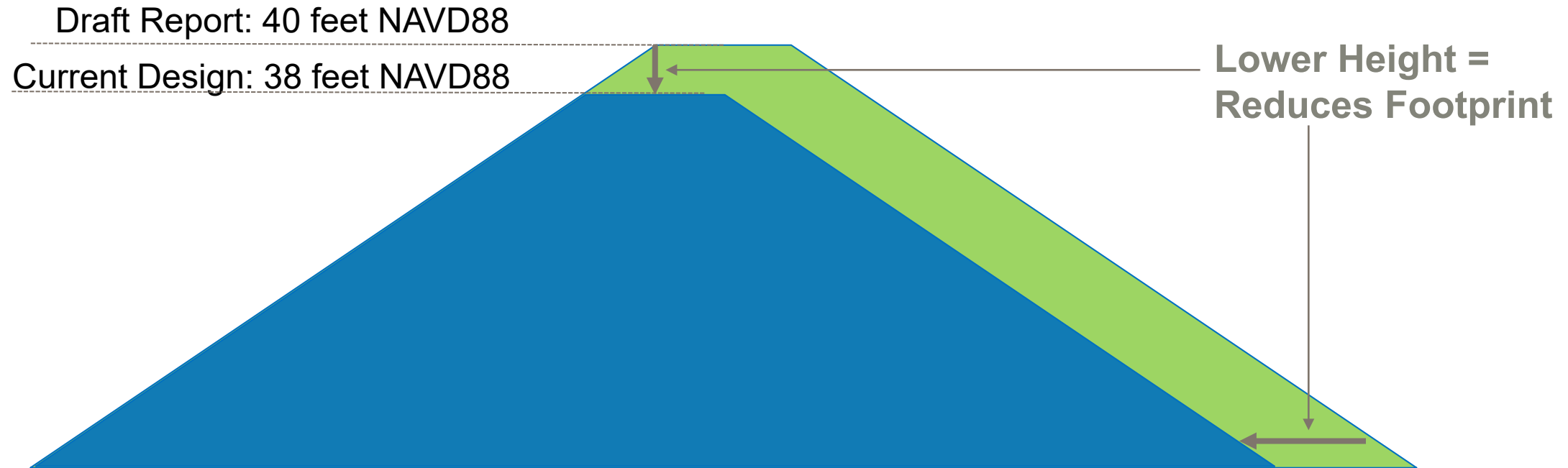
- The draft report analyzed a maximum levee raise at PEN 1 and PEN 2 to 40 feet NAVD88.
- During Refinement, we have analyzed various potential design heights, keeping **Life Safety as a top priority**.
- **Life Safety** is not expected to be different, due to evacuation warning timing.
- Net economic benefits are maximized at a height of 38 feet NAVD88 at the downstream end of PEN 1.
- Refined levee height reduces project footprint.



This information is pre-decisional

REFINEMENTS OF LEVEE DESIGN HEIGHT

Levee Cross-Section



This information is pre-decisional

ALIGNMENT

This information is pre-decisional



OVERVIEW OF ALIGNMENT



This information is pre-decisional

SUMMARY OF CHANGES SINCE DRAFT REPORT

Levee Segment	Draft Report	Refined Design
PEN 1 Columbia Slough	Raise and widen throughout	Spot-fill locations and widen throughout
PEN 1 RR Embankment	Parallel Levee	Parallel Levee (lower height/reduced footprint, further south)
PEN 1 Northwest Corner	Install new floodwall	Install new floodwall (lower height/reduced footprint)
PEN 1 Marine Drive Floodwall	Demolish and replace	Leave in place, install scour protection
PEN1/PEN2 floodwall under I-5	Demolish and replace	Demolish and replace (lower height/reduced footprint)
PEN 2 Northwest Corner	Install new floodwall	Raise levee embankment
PEN 2 Bridgeton Road	Install new floodwall	Raise Levee and Bridgeton Road (lower height/reduced footprint)
PEN 2 East Columbia Homes	Install new floodwall	Raise Levee and Marine Drive (lower height/reduced footprint)
PEN 2 Columbia Slough	Raise and widen throughout	Spot-fill locations

- Minor refinements to the MCDD and SDIC levee improvements

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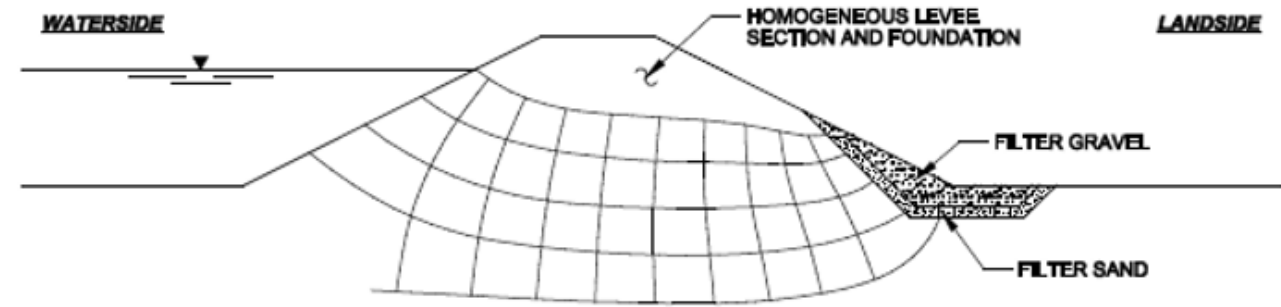
ALIGNMENT REFINEMENTS IN PEN 1

This information is pre-decisional



PEN 1 COLUMBIA SLOUGH

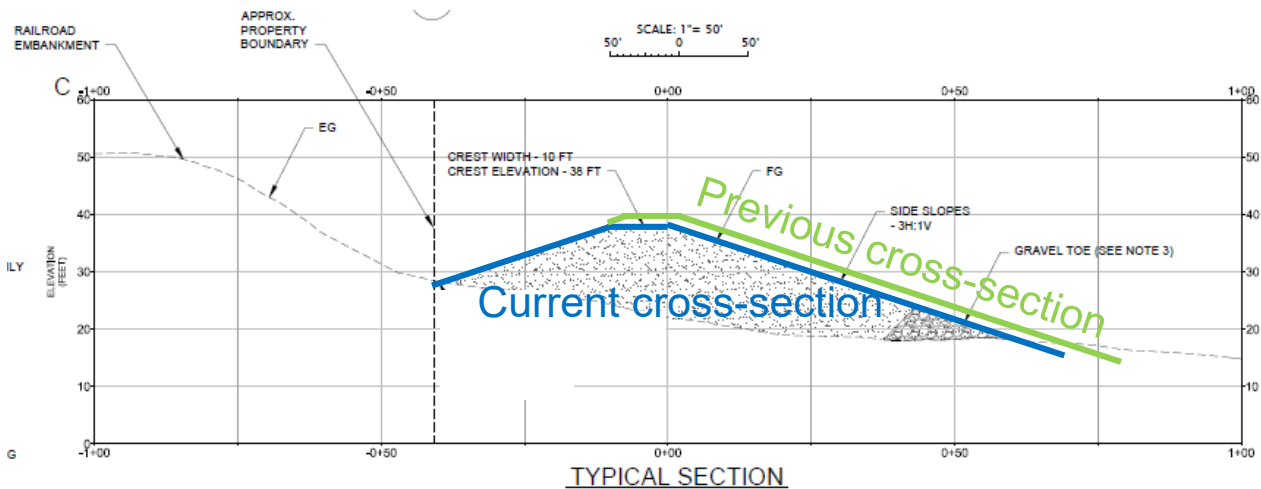
- Footprint up to 30 feet narrower than draft report
- Widen on the landside where needed to achieve 3:1 landside slope
- Fill in low spots at the levee crest
- Install toe drain at the bottom of levee landside slope to maintain access to PIR



This information is pre-decisional

PEN 1 RAILROAD EMBANKMENT

- Parallel levee alongside railroad embankment has reduced footprint
- No work in Natural Area north of Golf Course



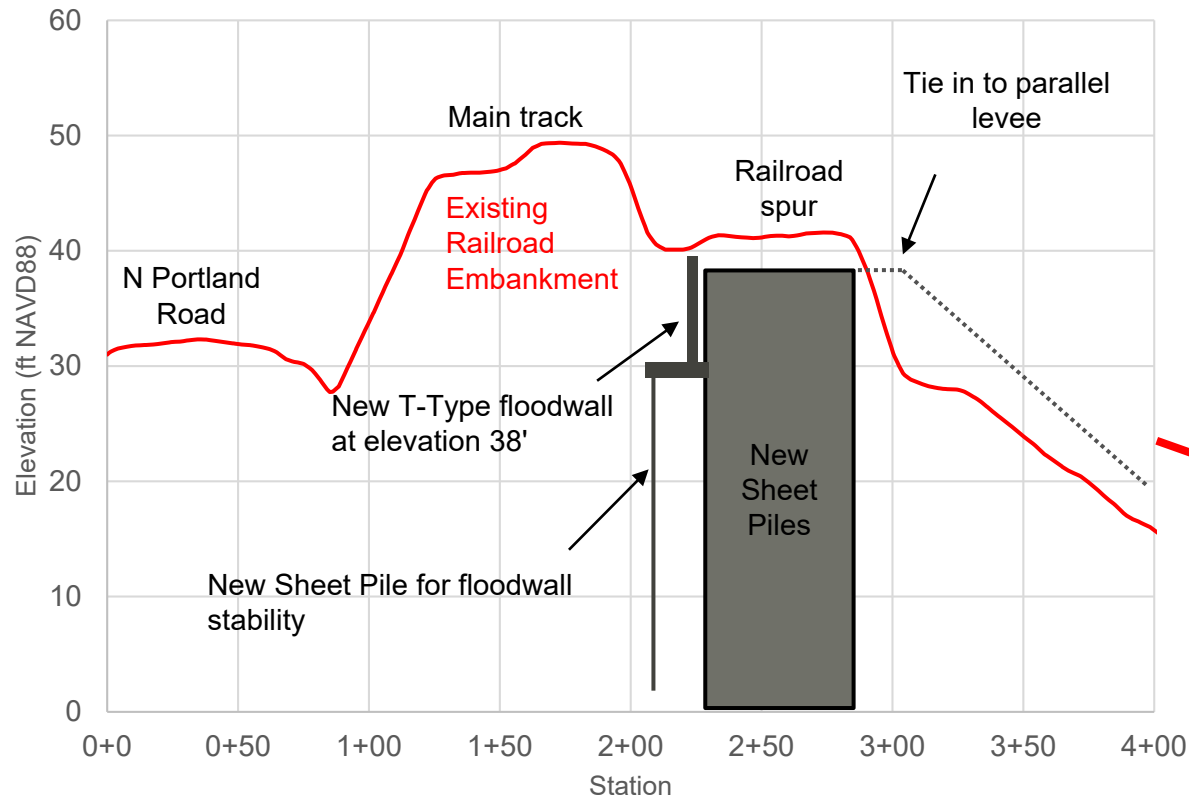
This information is pre-decisional



PEN 1 NORTHWEST CORNER

- New floodwall (with closure structure to allow vehicle access)
- Current design relocated the spur crossing further south than draft report

Section B

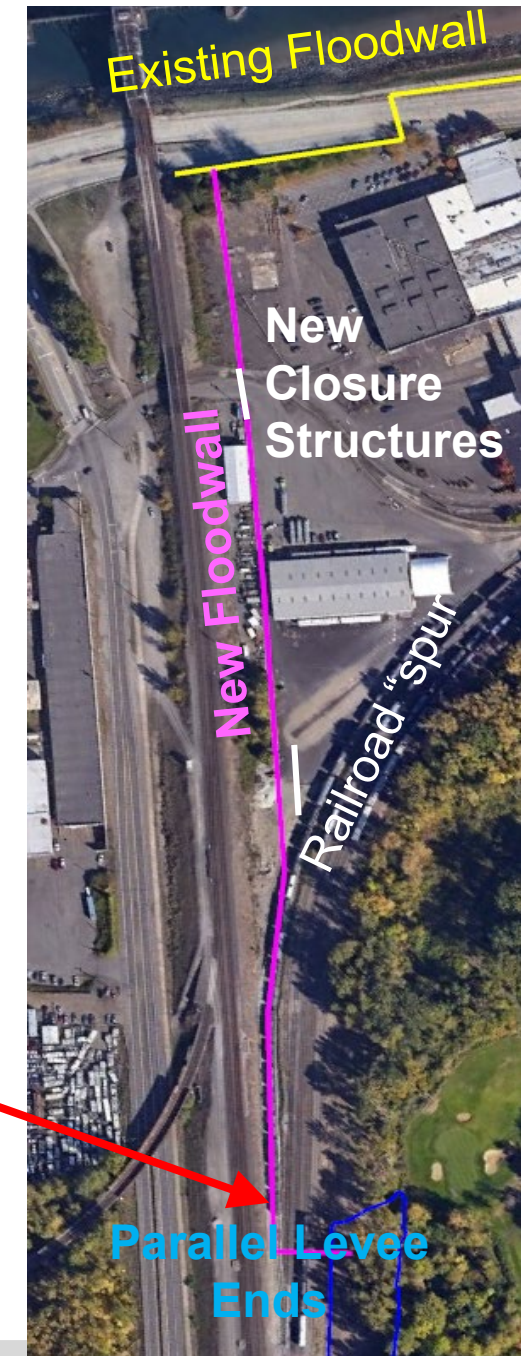


This information is pre-decisional

Previous Alignment (Jan 2020 Draft Report)

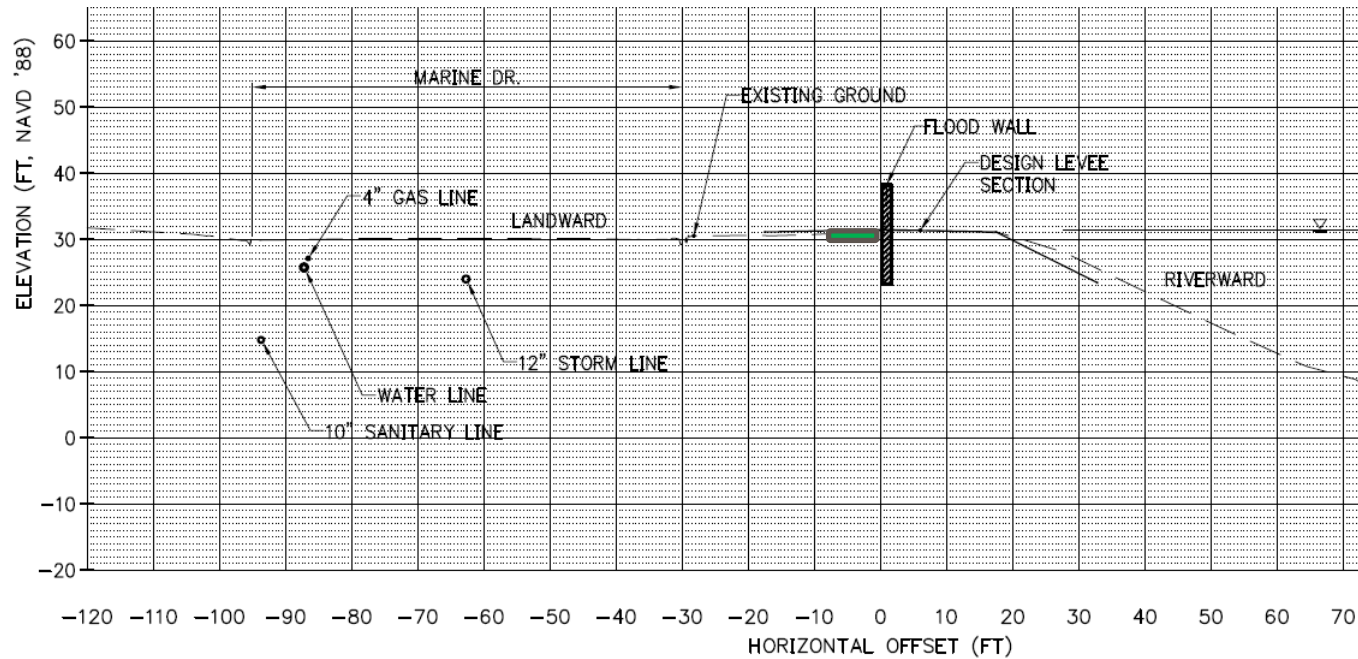


Refined Alignment



PEN 1 MARINE DRIVE FLOODWALL

- Keep existing floodwall in place
- Add scour protection to landside (like a concrete sidewalk)



This information is pre-decisional



PEN 1 I-5 AREA

This information is pre-decisional

-Install new floodwall



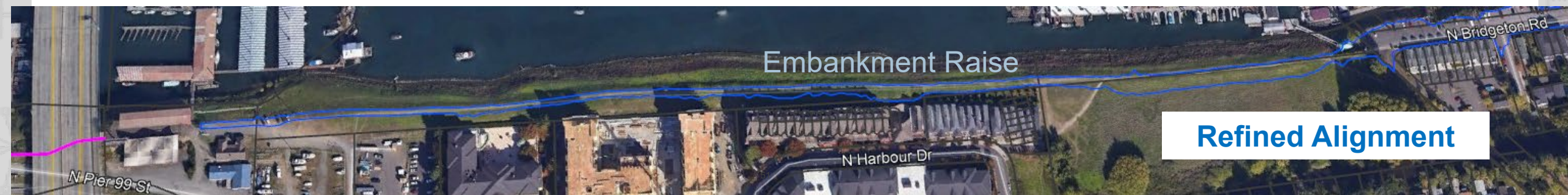
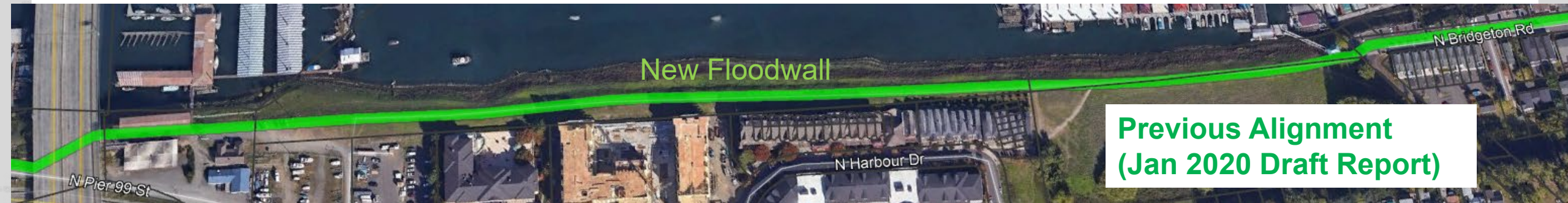
ALIGNMENT REFINEMENTS IN PEN 2

This information is pre-decisional



PEN 2 NORTHWEST CORNER

-Change from flodwall to raise levee up to 1 foot



This information is pre-decisional



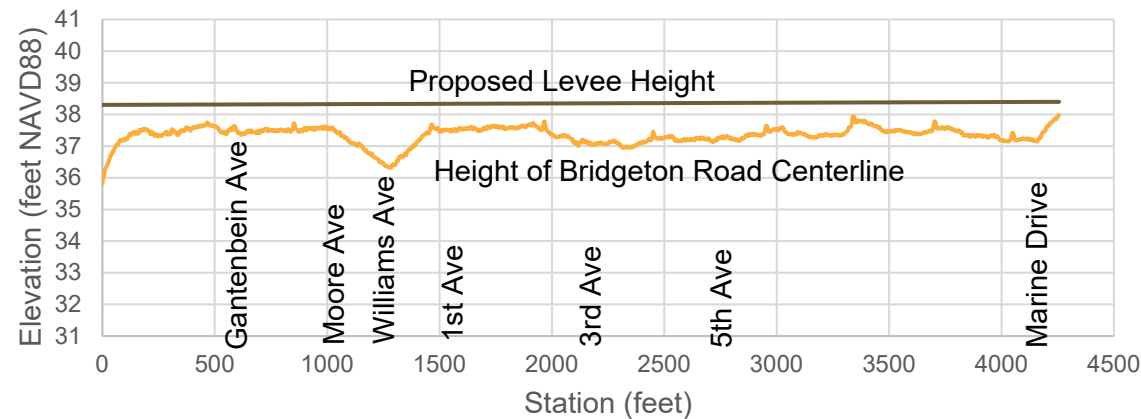
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PEN 2 BRIDGETON ROAD

This information is pre-decisional

- Change from floodwall to about 1-foot raise in levee/Bridgeton Road
- Install up to 2-foot high floodwalls in 2 locations where there is no overbuild/parking
- Transitions from driveways/sidewalks will be designed in PED, appears feasible



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FLOODWALL AREAS ARE ON THE NORTH SIDE OF THE ROAD

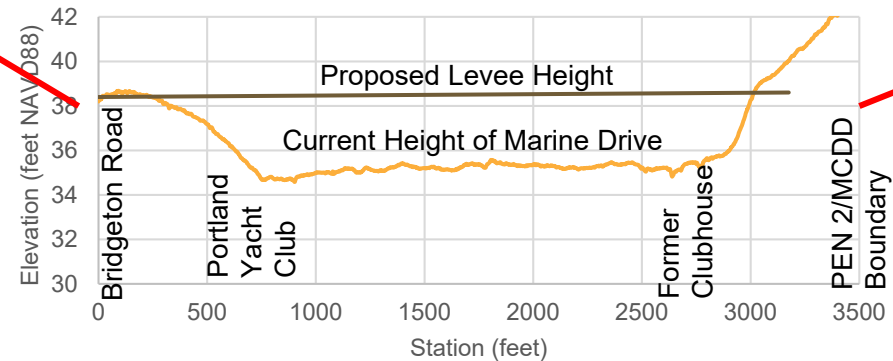
This information is pre-decisional



PEN 2 EAST COLUMBIA/MARINE DRIVE HOMES

This information is pre-decisional

- Raise Levee/Marine Drive instead of installing floodwall/closure structures
- Driveways/adjacent parking will be designed in PED, compatibility with ped/bike; appears feasible



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PEN 2 COLUMBIA SLOUGH

This information is pre-decisional

-Fill in low spots at the levee crest



Previous Alignment
(Jan 2020 Draft Report)



Refined Alignment

ALIGNMENT REFINEMENTS IN MCDD & SDIC

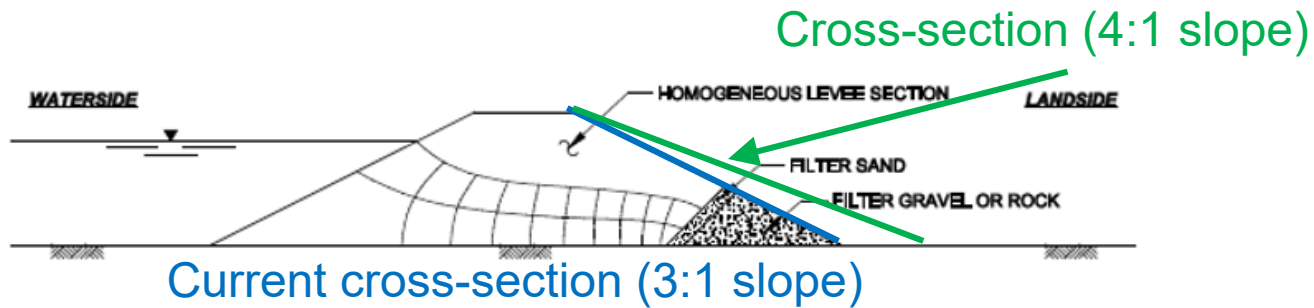
This information is pre-decisional

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MCDD PENINSULA CANAL CROSS-LEVEL

- Widen as necessary to meet 3:1 slope
- Install gravel toe
- Fill in low spots at the levee crest
- Extend improvements further south than shown in draft report

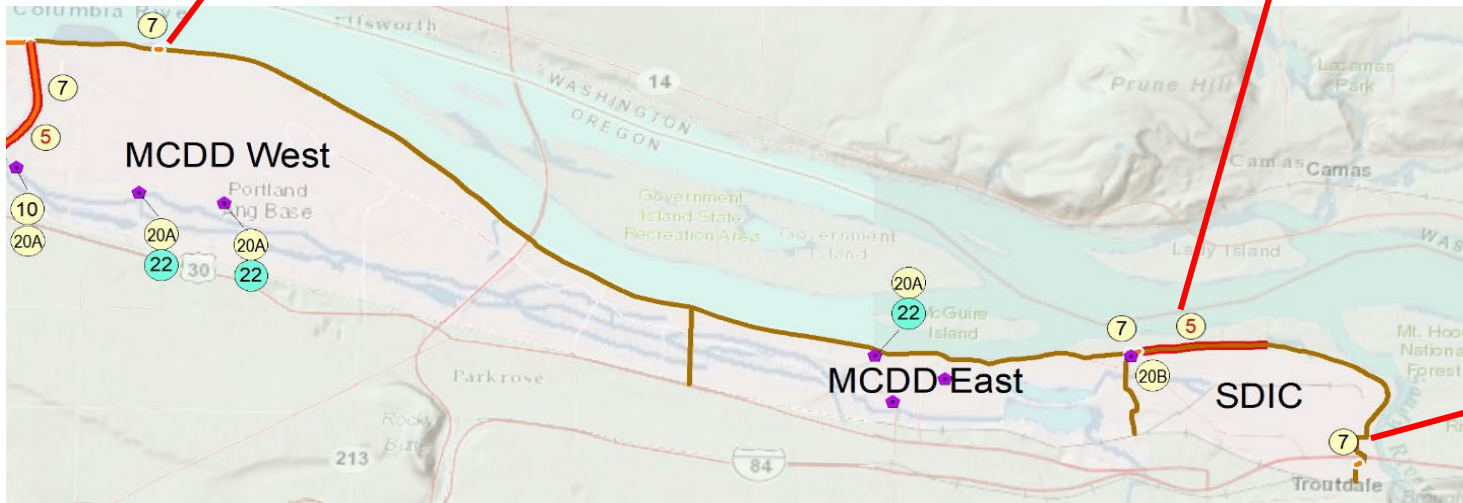


This information is pre-decisional



OTHER IMPROVEMENTS IN MCDD/SDIC

-Little change from the draft report



This information is pre-decisional

THANK YOU FOR YOUR TIME THIS EVENING

<https://www.nwp.usace.army.mil/missions/projects-and-plans/portland-metro-levee-system/>

This information is pre-decisional



Questions

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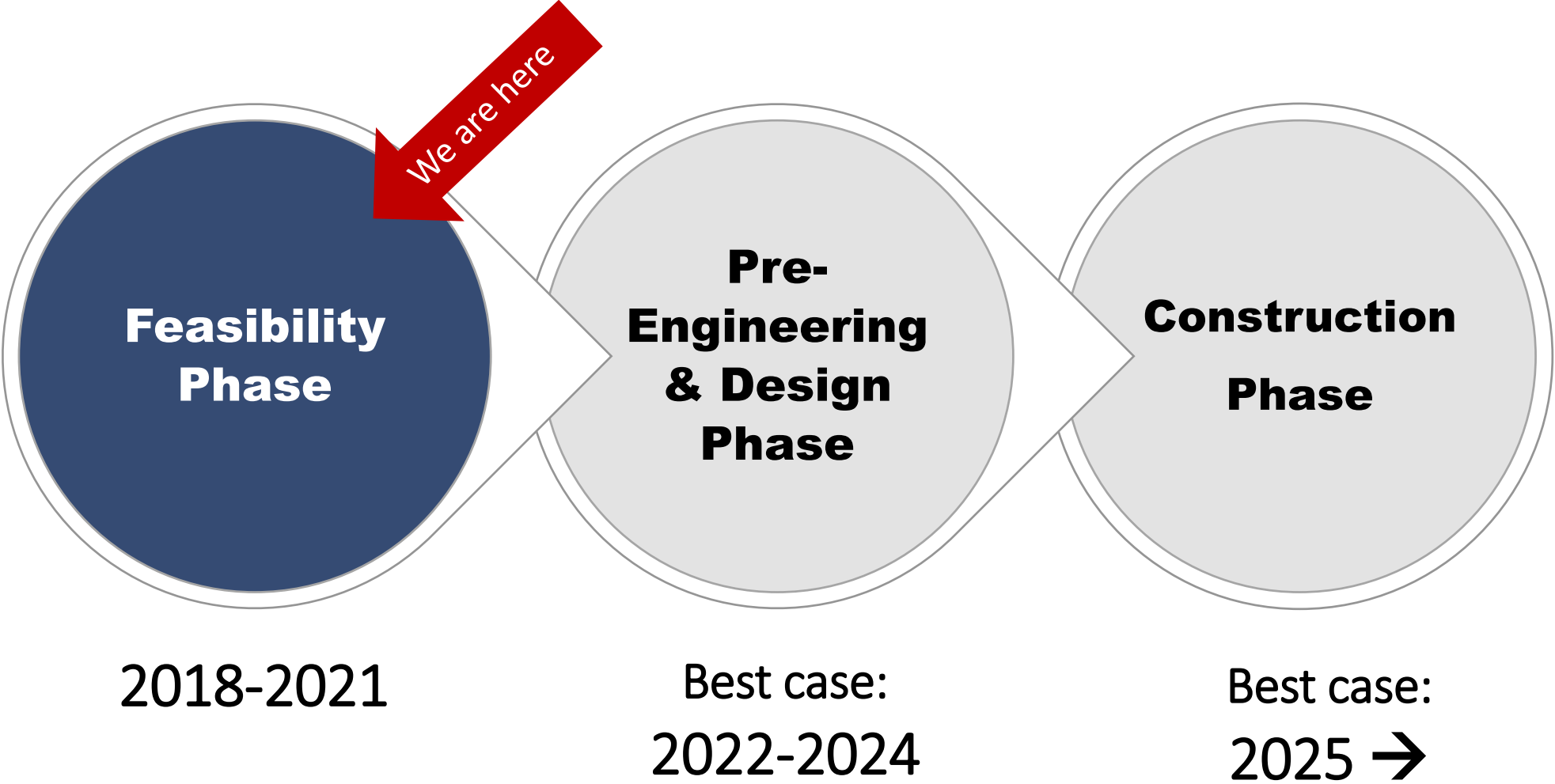


A scenic view of a waterfront area. In the foreground, a paved path runs along a grassy bank next to a body of water. A long, low concrete wall runs parallel to the path. To the right of the wall is a gravel area with some trees and a fence. In the background, there are industrial buildings, cranes, and a mountain range under a clear sky.

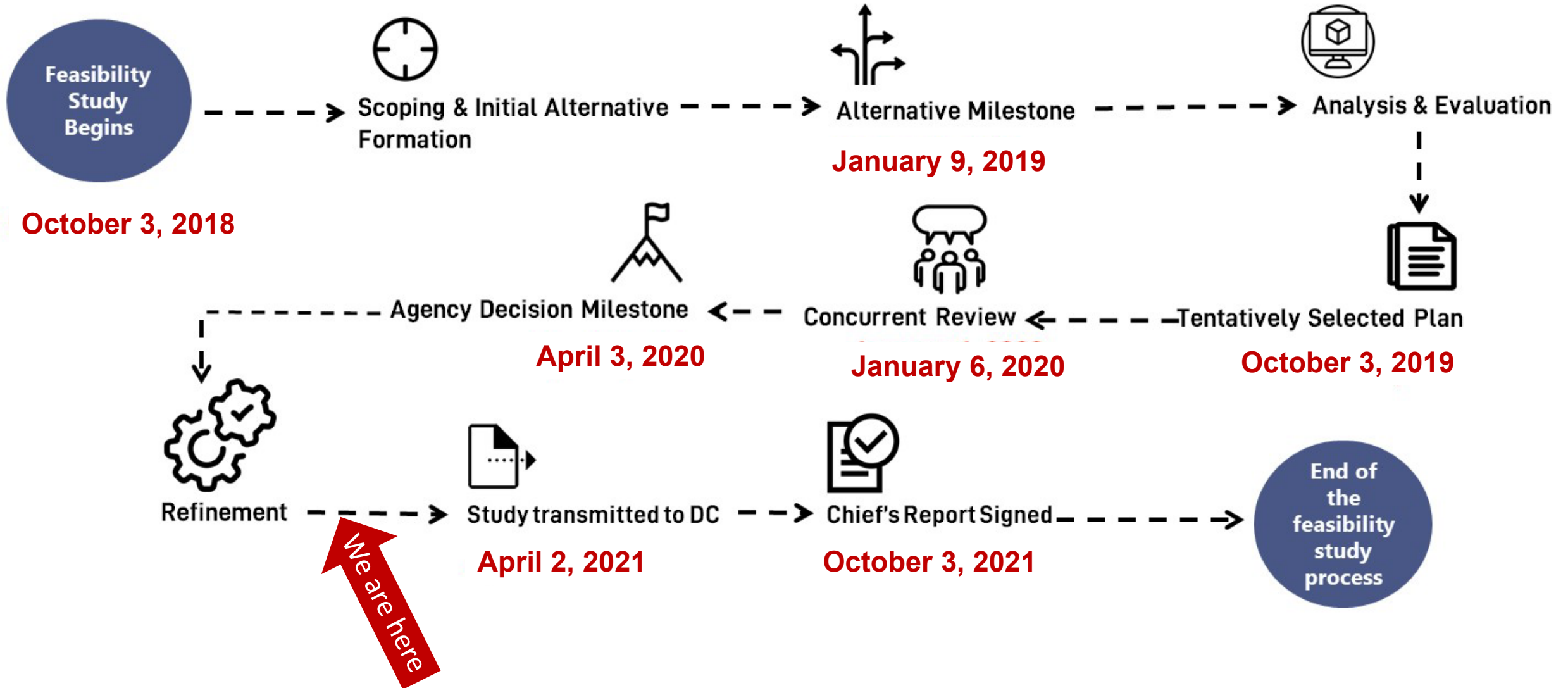
What's Next: Timelines & Uncertainties

Colin Rowan
Deputy Director, MCDD

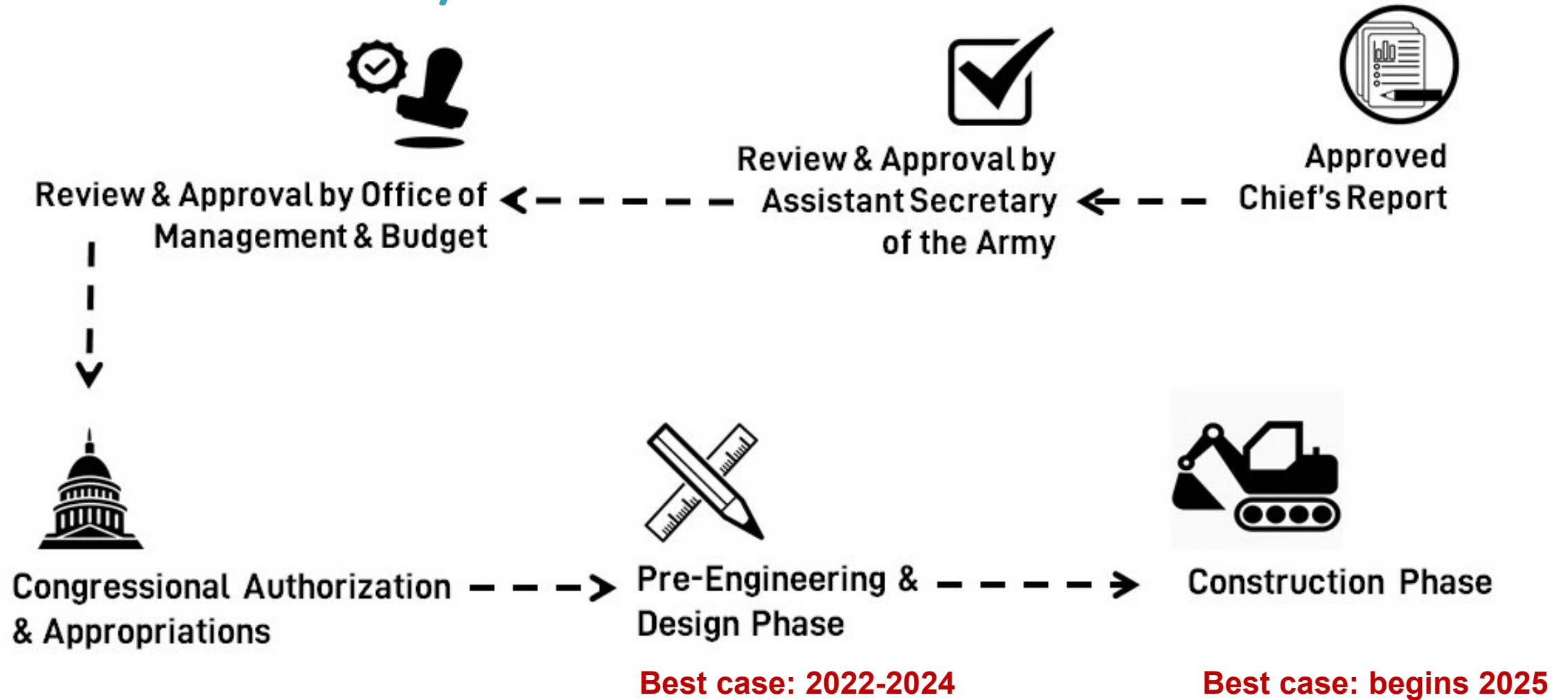
Federal Infrastructure Investment Process with the US Army Corps of Engineers



Feasibility Study Process



Post-Feasibility Phase



The Big Picture



Columbia Corridor Drainage Districts *ongoing operations and maintenance of levees and conveyance infrastructure*



Levee Ready Columbia *focus on the completion of recertification projects*



Urban Flood Safety & Water Quality District *Establishing a sustainable revenue structure and then taking over operations and maintenance from the drainage districts*



USACE Federal Investment Process *seeking federal reinvestment in the flood safety infrastructure; recommendations currently include four recertification projects and other improvements*

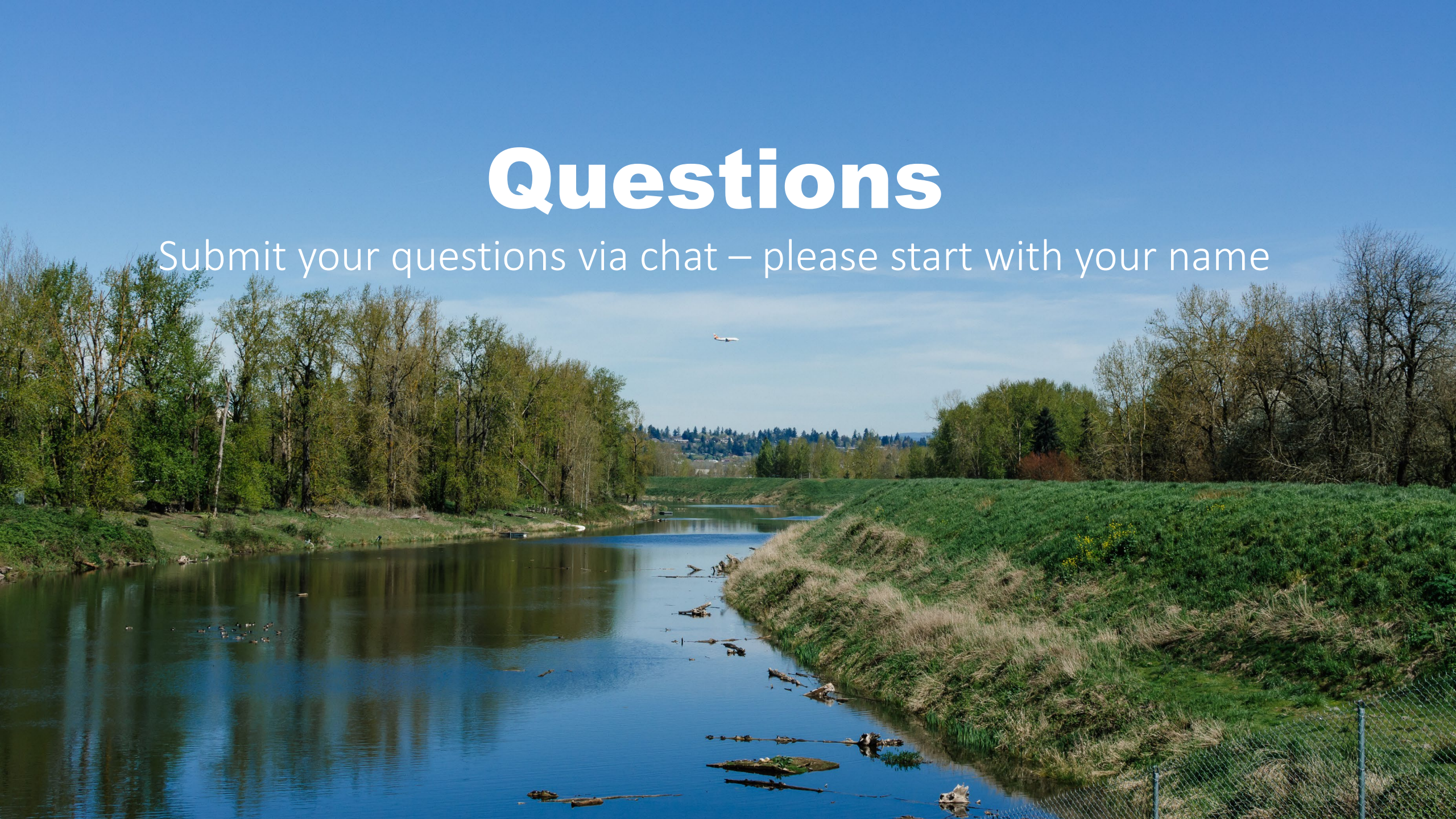
Feasibility Study Phase

Pre-Engineering & Design Phase

Construction Phase

Questions

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Closing & Next Steps

Jamie Damon
Facilitator, Kearns & West

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