

Welcome to the
**Lower Duwamish Waterway
Roundtable Meeting**
WEDNESDAY, SEPTEMBER 28, 2022



Do you have your meeting materials?

Meeting materials (English, Vietnamese, Spanish, and Khmer) can be found on the Lower Duwamish Waterway Roundtable Website:
<https://www.duwamishwaterwayroundtable.org/meetings>
or scan the QR code on the right



For **Spanish, Khmer, or Vietnamese (Español, ខ្មែរ, Tiếng Việt)** audio, select your language in the Zoom toolbar on the bottom right of your screen during the meeting.

For **English** audio, please **select English**.



Facilitator's Notes



Keep yourself on mute unless you are speaking.



Balance speaking time and stay on the agenda topic.



Introduce yourself when speaking: "This is (name) with (affiliation, caucus/seat)"



In disagreements, share the reason why you feel as you do, and ask questions to find out how others feel.



Be respectful and courteous.



Be patient with potential internet connectivity issues - we will do our best to create a seamless experience!



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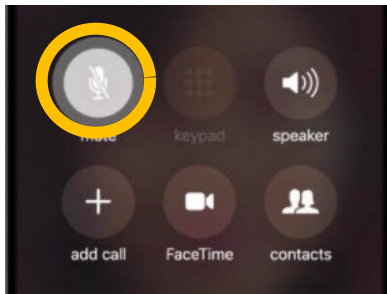
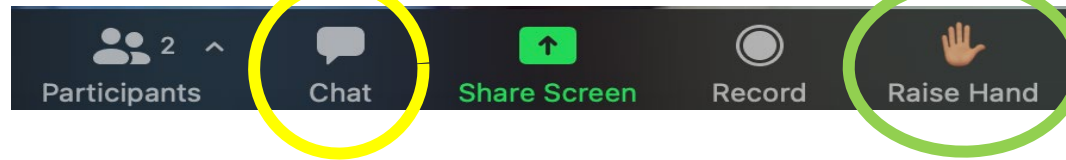
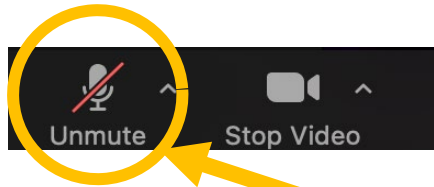
For **English** audio, please **select English**.



Tips for Using Zoom

If you have a **technical problem** or want to **type a question**, please type them in the chat! Or, ask your interpreter to type for you.

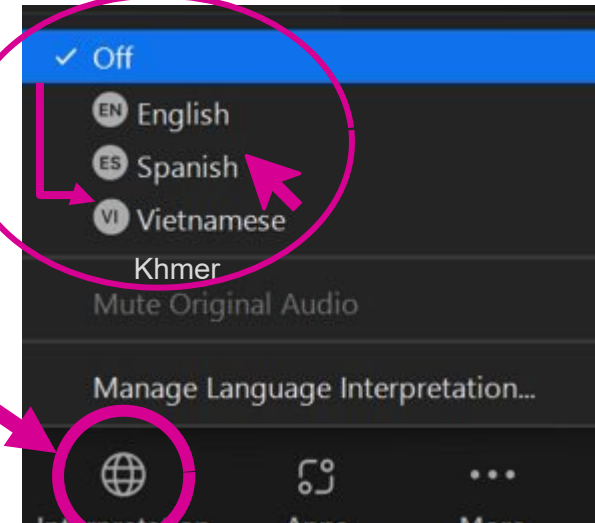
If you want to **comment** or ask a **question verbally**, please click 'Raise Hand' and we will call on you.



Please **keep yourself on mute** unless you are speaking. By phone only? Use your mute button or “*6”

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Multilingual Meeting Best Practices

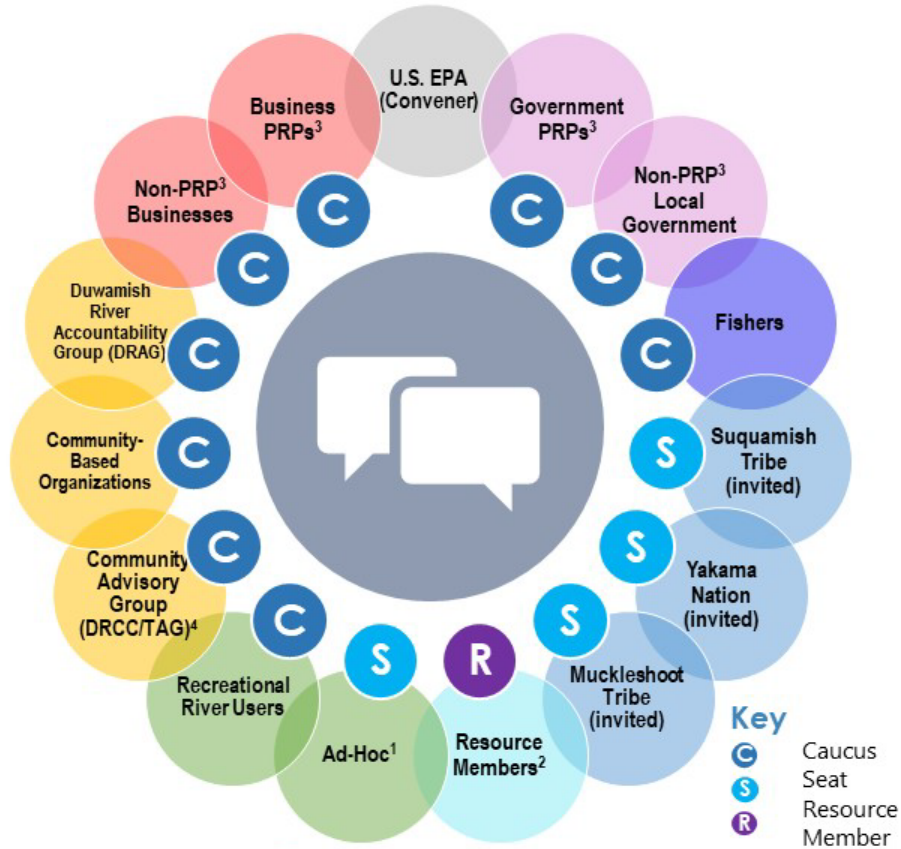
English participants
should...

- Speak slowly!
- Take pauses every 2-3 sentences
- Avoid acronyms
- Use common language



Purpose

To provide a forum for interested and affected parties to make recommendations for the United States Environmental Protection Agency (U.S. EPA) to consider throughout the Lower Duwamish Waterway Superfund cleanup.



¹ Non-governmental community members or interest groups not represented in the Community Caucus.

² Government entities that contribute information but do not develop recommendations, including but not limited to the Washington State Department of Ecology and others.

³ PRP = Potentially Responsible Party

⁴ Duwamish River Cleanup Coalition/Technical Advisory Group

Purpose of the Roundtable

The Lower Duwamish Waterway (LDW) Roundtable is a forum for those affected by the cleanup of the *Lower Duwamish Waterway Superfund Site* to make recommendations to the U.S. Environmental Protection Agency (EPA) during the design and construction of the cleanup.



Today's Meeting Purpose

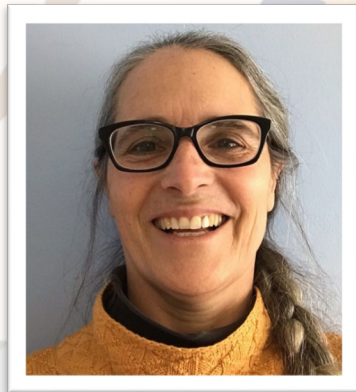
For Roundtable members to learn about the early cleanup design for the Upper Reach of the Lower Duwamish Waterway, and to provide input about how the activities at each location within the cleanup area may affect residents, tribes, industry, habitat, fishers, and recreationists for consideration in subsequent planning documents in the design of the cleanup.

Today's Agenda



- Welcome, Introductions, and Where We Left Off
- Initial Cleanup Design for the Upper Reach
- Breakout Room Discussions
- Large Group Dialogue and Q&A
- Announcements from Roundtable Caucuses
- Observer Comments and Questions
- Wrap Up and Next Steps
- Optional Debrief and Informational Networking

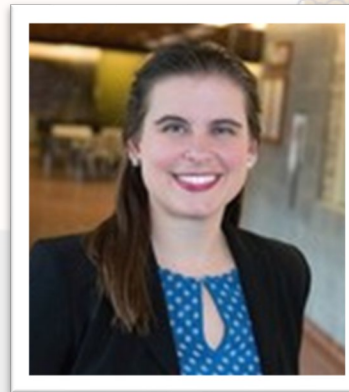
Welcome and Roundtable Introductions



Elly Hale

*Remedial Project
Manager*

U.S Environmental Protection
Agency (EPA)



Laura Knudsen

*Community Involvement
Coordinator*

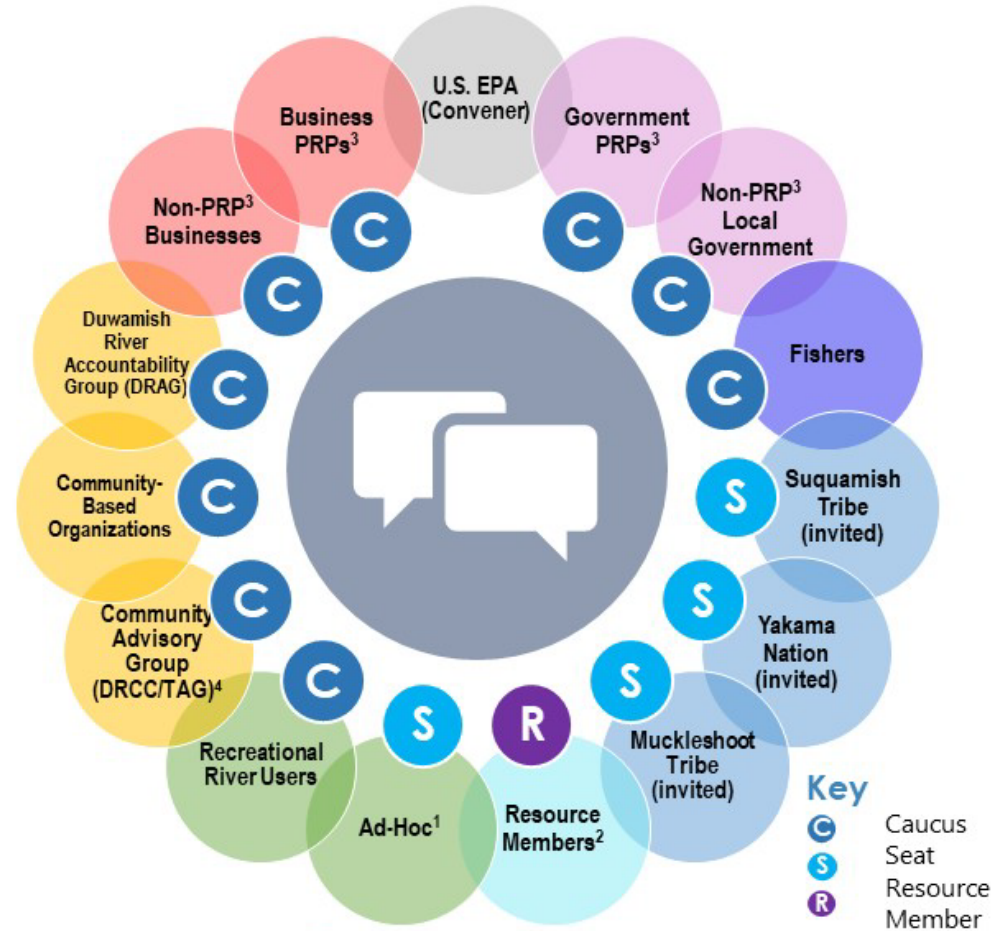
U.S Environmental Protection
Agency
(EPA)

Welcome and Roundtable Introductions

The facilitator will review the Roundtable caucuses and caucus leads.

Purpose

To provide a forum for interested and affected parties to make recommendations for the United States Environmental Protection Agency (U.S. EPA) to consider throughout the Lower Duwamish Waterway Superfund cleanup.



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Roundtable Steering Committee



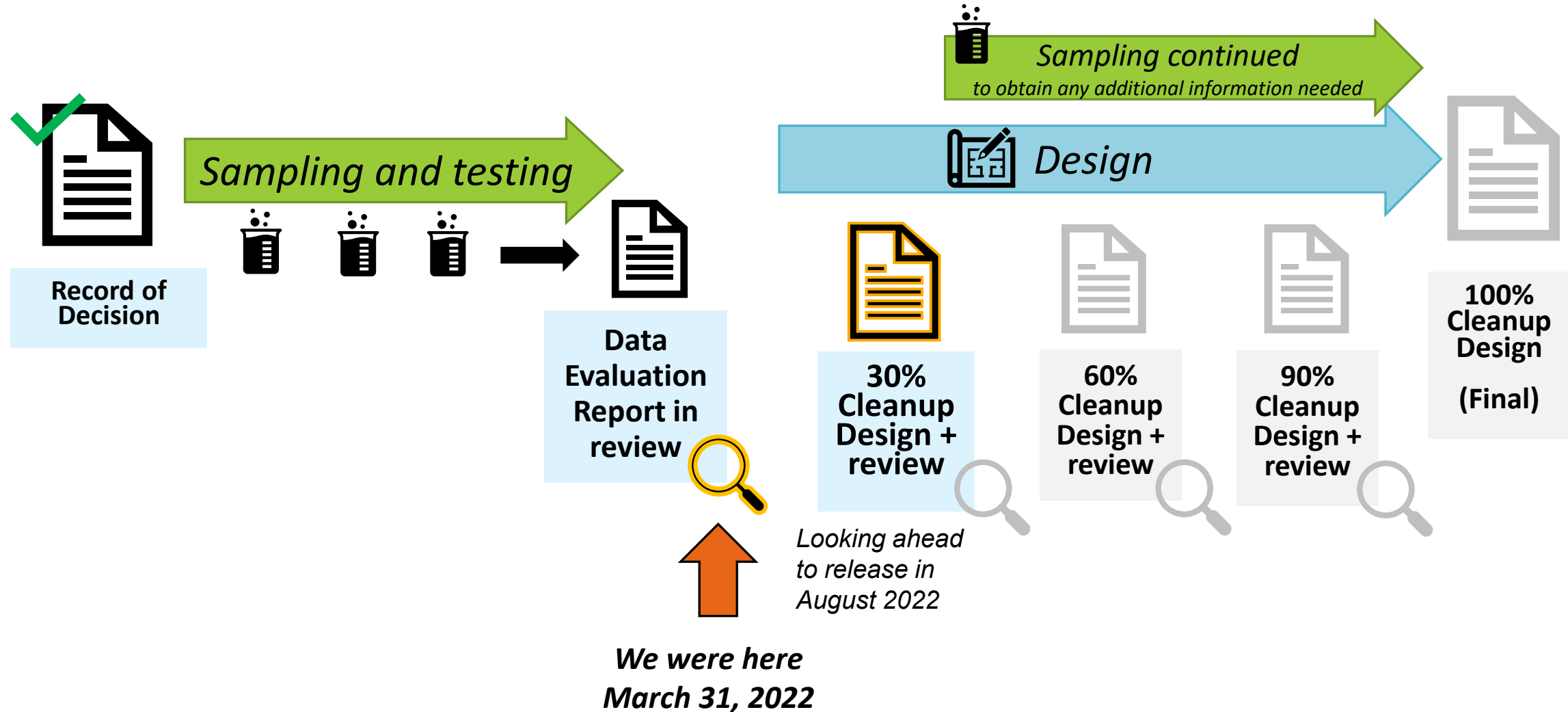
Coordinates with EPA to guide the work of the Roundtable, including soliciting agenda topics, drafting meeting agendas, and developing Roundtable work plans.

Includes members from three interest groups:

- Residents (Primary: Jamie Hearn, DRCC; Alternate: Edwin Hernandez Reto, community member)
- Business/Industry/Labor (Primary: Pat Jablonski, Nucor; Alternate: Jonathan Hall, La Farge)
- Fishers (Rotating: Sophorn Sim, Emma Maceda, Kevin Duong)

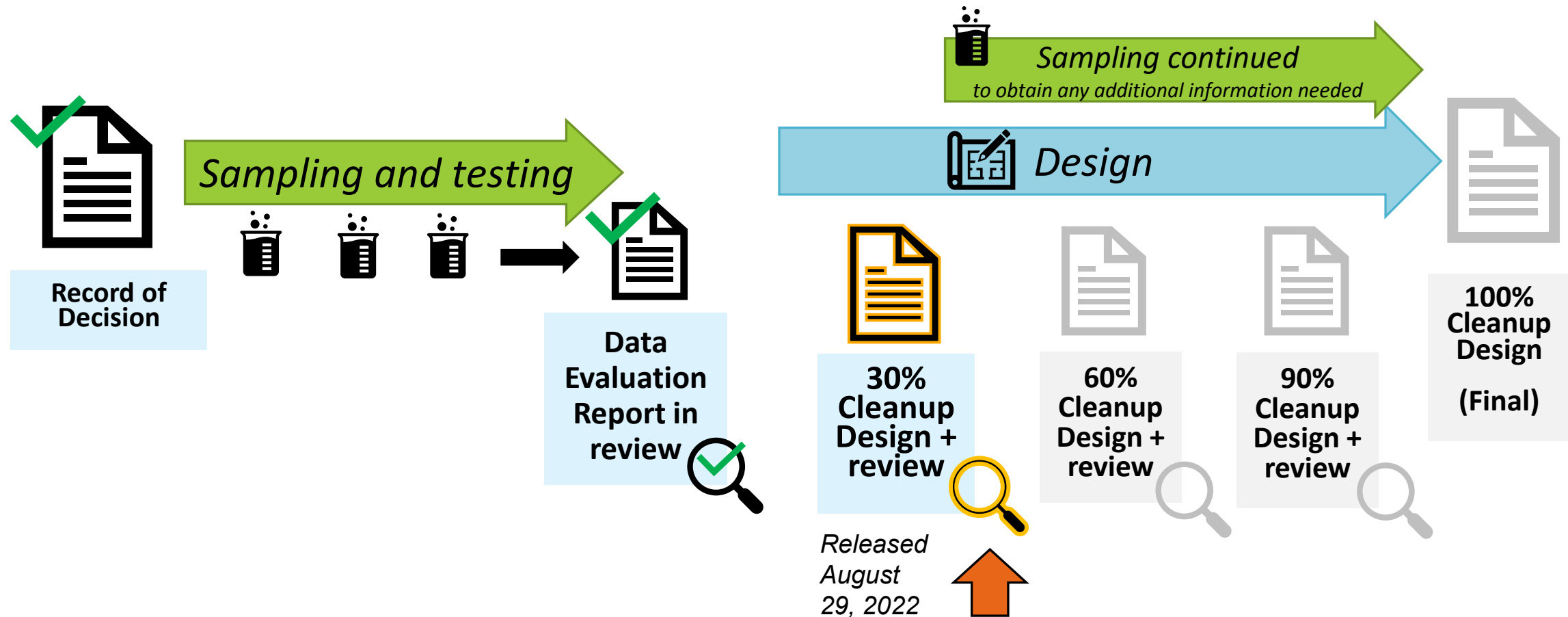
UPPER REACH: Where we were at the last Roundtable

Sampling in 2020 and 2021, combined with data from the Remedial Investigation and other studies, was used to refine the cleanup boundaries.



UPPER REACH: Where we are now

Sampling in 2020 and 2021, combined with data from the Remedial Investigation and other studies, was used to refine the cleanup boundaries.



We are here
September 28, 2022

At the previous Roundtable meeting, we...

- Discussed what to expect in the 30% cleanup design of the Upper Reach
- Identified initial ideas about how cleanup may impact caucus members **in general**.
- Ideas we heard included:
 - Access to fishing sites
 - Sampling schedules
 - Air pollution
 - Beach access
 - Shoreline park access
 - Traffic on land
 - Noise pollution

At today's Roundtable meeting, we will...

- See examples of specific equipment that may be used and where
- Review the **specific areas** where cleanup activities will occur and identify potential impacts to caucus members **at those specific areas in the Upper Reach**

September 28, 2022

Lower Duwamish Waterway Roundtable Meeting

Lower Duwamish Waterway **Upper Reach**

Overview of Early Design
Input Session on Potential Impacts

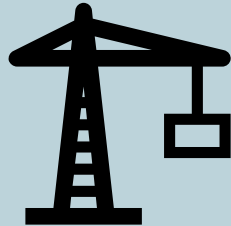


Learning Objectives

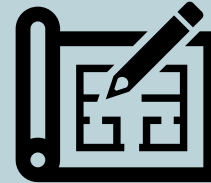
By the end of this session, we hope you will:



Understand
where we are in
the Superfund
process for the
Upper Reach



Learn more about
cleanup
construction



Learn what is
in the early
design for the
Upper Reach

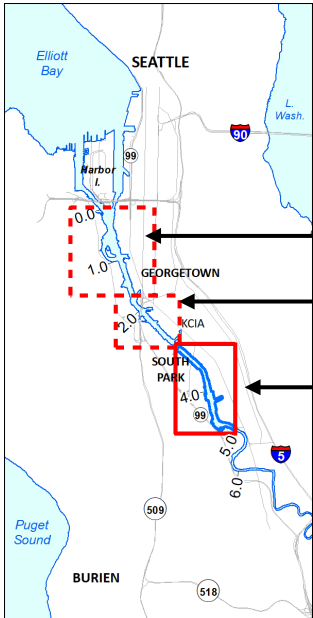


Provide input to EPA
on how community
members might be
impacted by cleanup
construction for the
Upper Reach &
beyond



Where are we in the Superfund process for the Upper Reach?

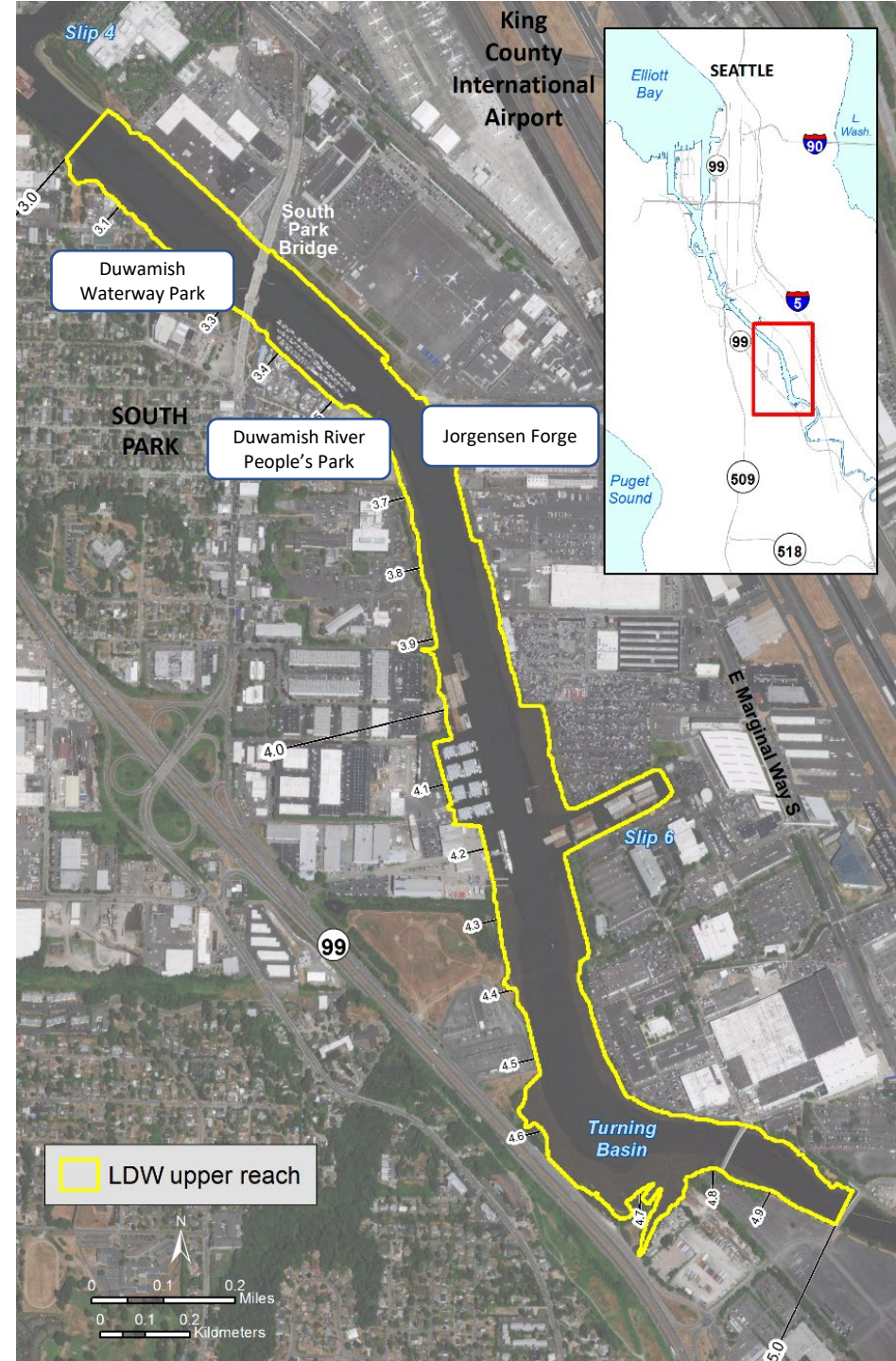
Upper Reach of the Lower Duwamish Waterway (River Mile 3.0 – River Mile 5.0)



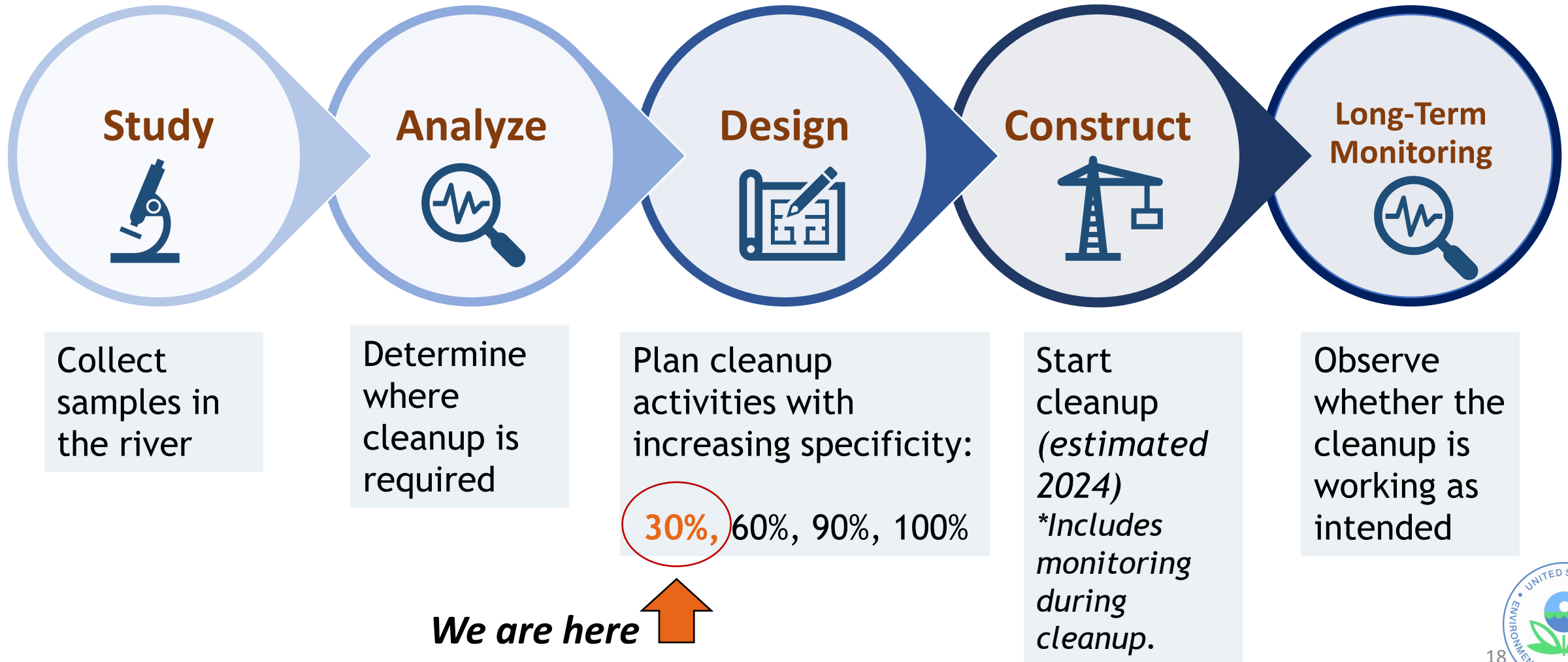
← Lower Reach (*farthest downstream*)

← Middle Reach

← Upper Reach (*farthest upstream*)



How we go from the cleanup **plan** to cleanup **construction**



EPA Review Periods for Design Documents

Phase II DER

Feb-April 2022

- Investigations summary and interpretation
- "Final" RAL exceedance areas
- Data gaps analysis

30% Design

Aug-Oct 2022

- Basis of Design Report
- Preliminary drawings
- Specifications outline
- Outlines of supporting plans

60% Design

Feb-March 2023

- Refined elements listed in 30% design
- Detailed plans and specifications

90% Design

June-July 2023

- Further refined elements listed in 30% design, including incorporation of any Phase III data
- Draft supporting plans



We are here

Reminder:

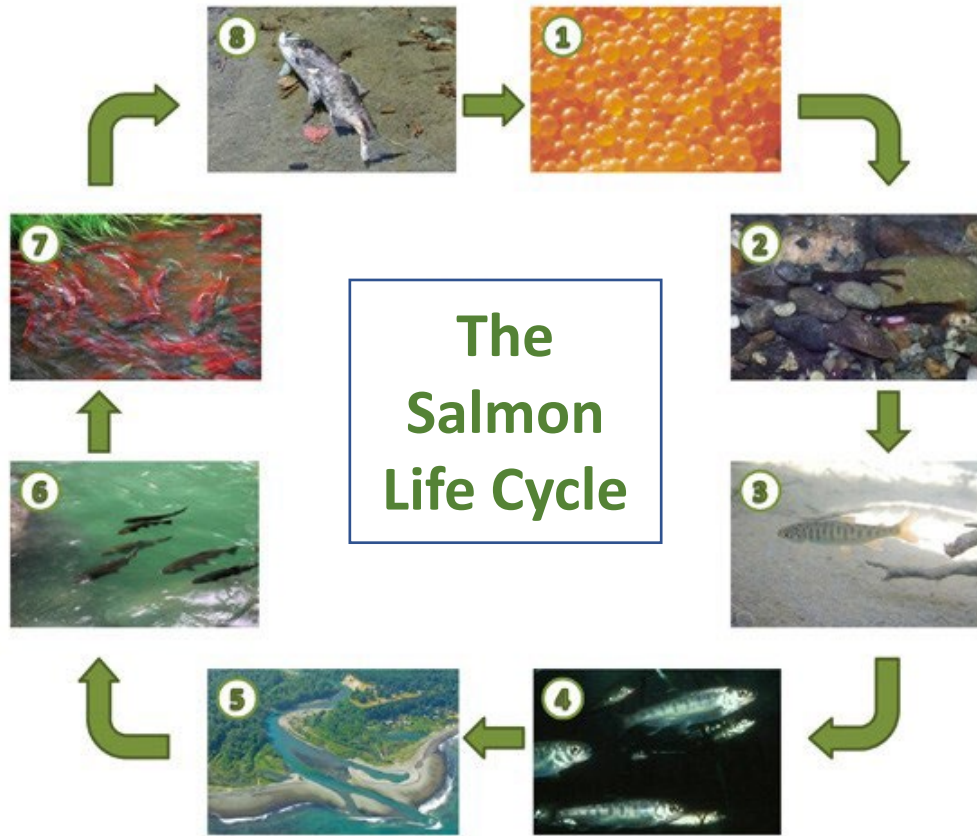
DER: Data Evaluation Report

RAL: Remedial Action Level

100% Design

Final Nov 2023

Timing Considerations for Construction



Salmon Lifecycle. *Source:* National Park Service.

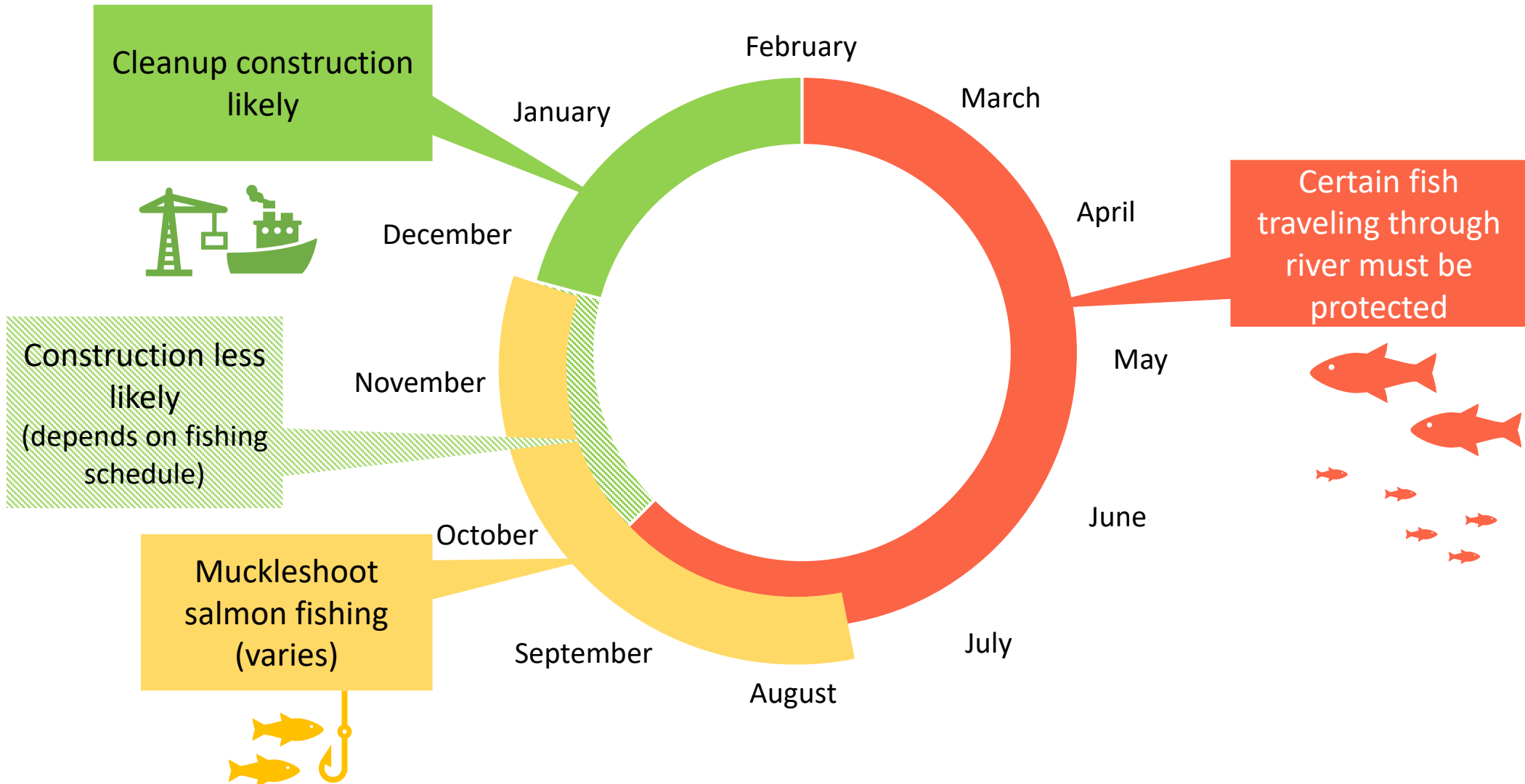
In general, salmon and other fish travel through the Duwamish:
Mid February – September



Muckleshoot Tribe Net fishing by South Park Bridge.
Source: ifish.net

Muckleshoot Tribe's fishing depends on salmons' timing, but typically occurs:
August – early December

Cleanup construction in waterway is limited





Learn more about cleanup construction

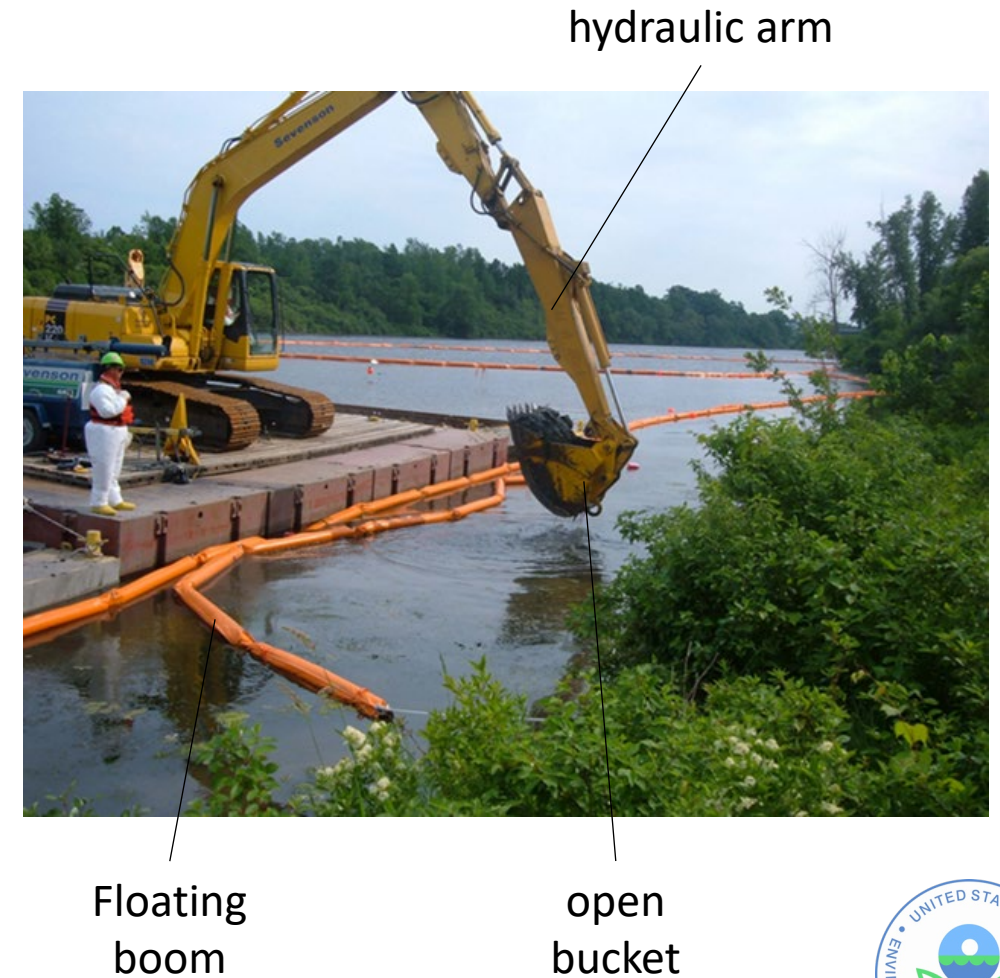
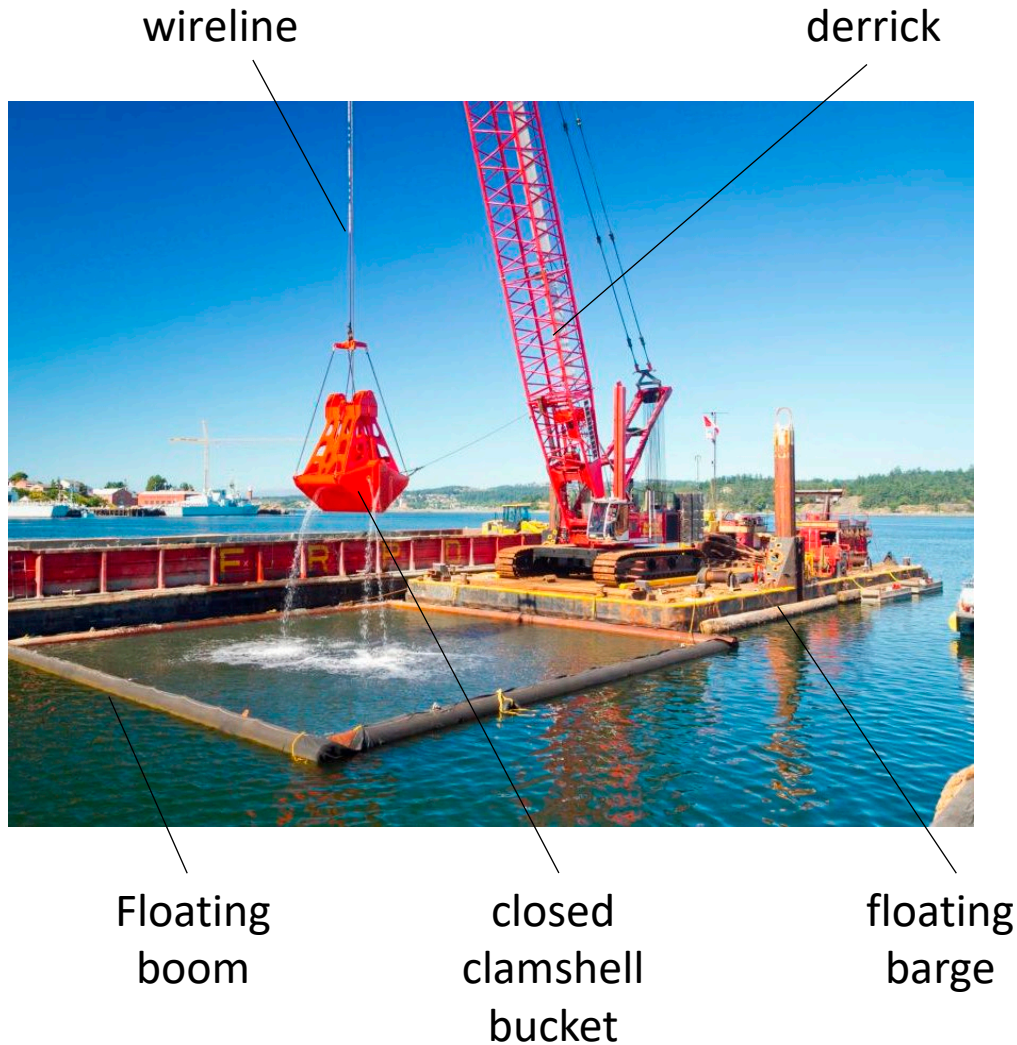
Examples of equipment and techniques

Please Note: The exact equipment that will be used depends on availability, environmental controls, efficiency, and physical surroundings.

Examples: Dredging Equipment

Photo source: Anchor QEA

Types of equipment and the names of their parts



Examples: Dredging methods

Photo source: Anchor QEA

Dredging methods depend on site conditions.



Open clamshell bucket example – debris in mud



Closed clamshell bucket example – “environmental bucket”



Derrick Barge with wireline bucket



Derrick Barge with wireline bucket



Wireline bucket with debris



Hydraulic excavator with closed bucket



Hydraulic excavator with open bucket



Hydraulic excavator and barge

In Water: Typical Environmental Dredging Project

On Site Equipment

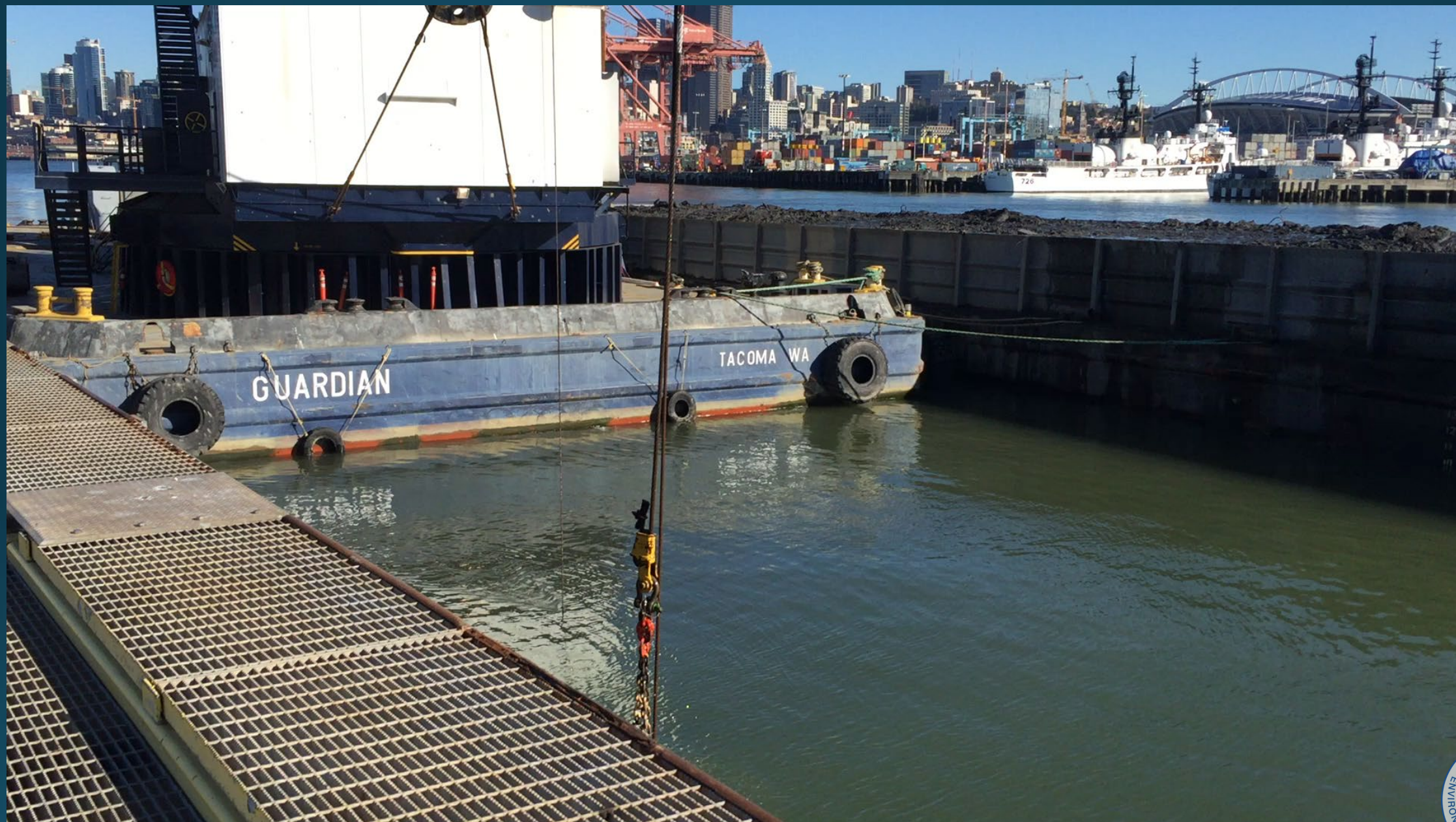
- 1 barge with dredge crane
- 1-2 barges to collect dredged material
- 1 tugboat to move barges
- 1 small support vessel

Other equipment is sometimes used to:

- *Contain stirred-up sediment (turbidity)*
- *Collect floating debris*



Photo source: Anchor QEA



Examples: Putting down clean material for capping or enhanced natural recovery



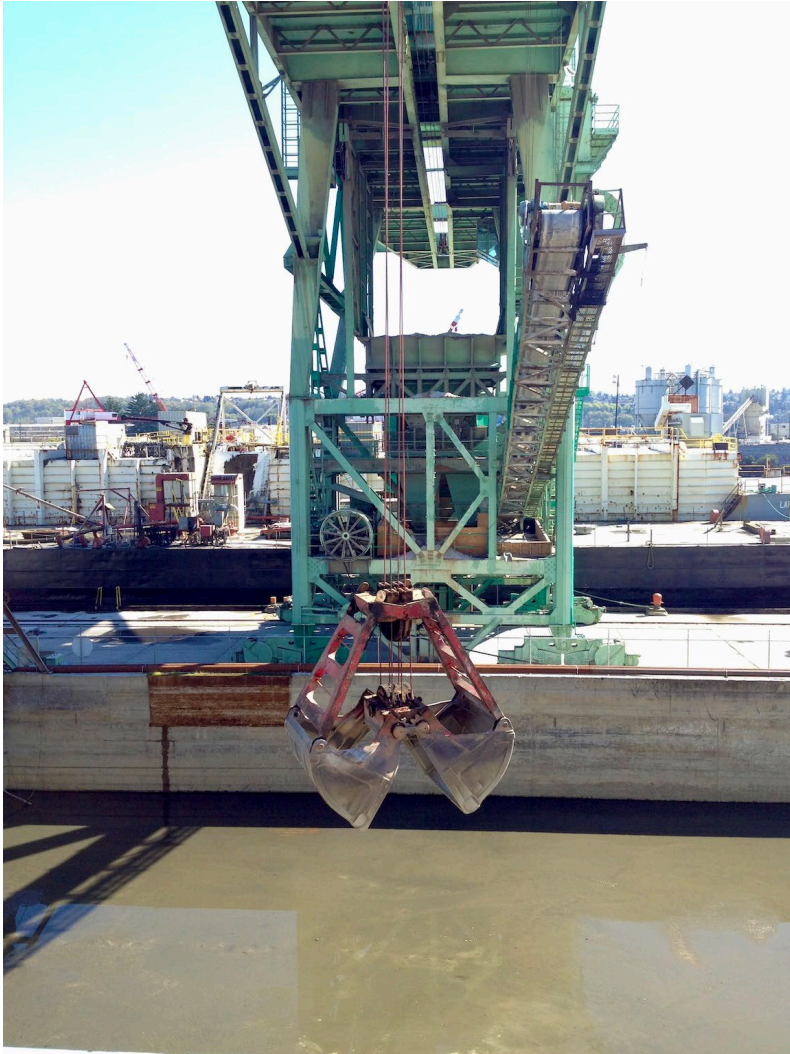
Placing material with conveyor belt



Placing material with open bucket

Photo source: Anchor QEA

Examples: Transloading (taking dredged material off barge to load on train or truck for transport)



Offloading dredged material



Offloading dredged material with closed bucket and spill aprons

Photo source: Anchor QEA



Where can we put material from a barge onto land at the Duwamish?

Two options:

- 1** Lafarge
 - 5400 W Marginal Way

- 2** Waste Management Duwamish Reload Facility
 - 7400 8th Avenue S



Waste is loaded on rail cars and transported on rail line to disposal site

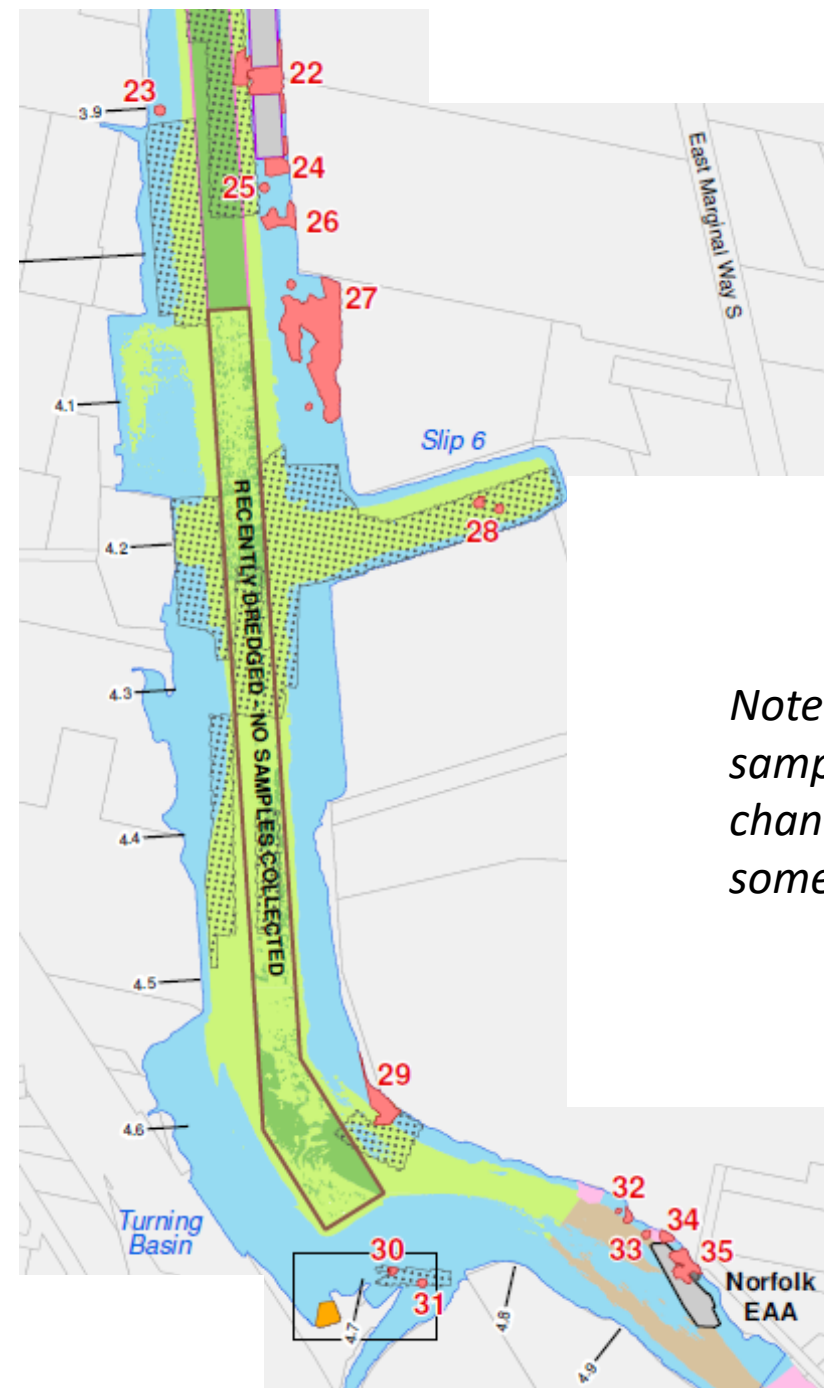
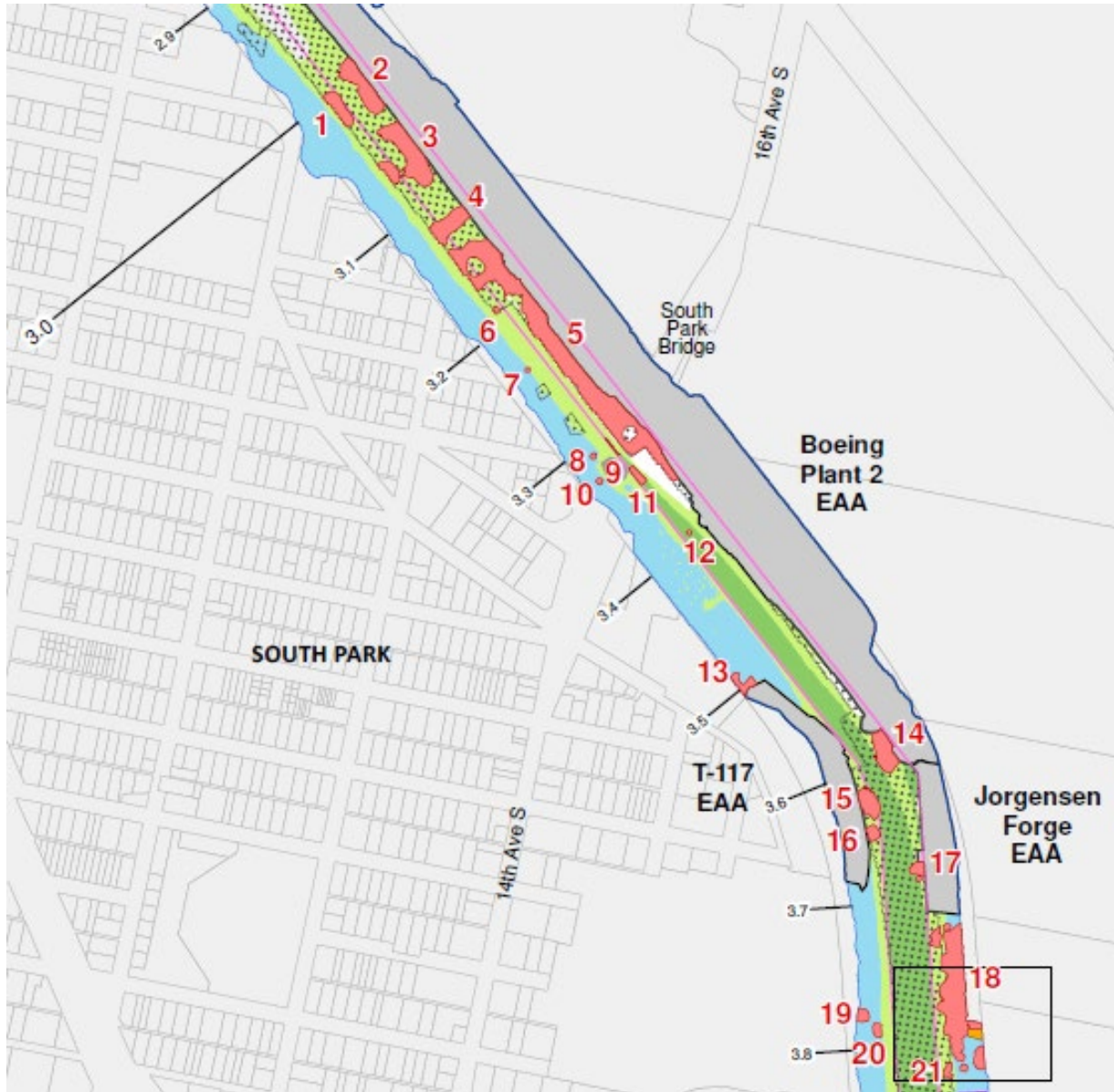




What is in the early design for the Upper Reach?

Detailed information about areas for active cleanup
Engineering drawings relating to cleanup areas

Areas for Active Cleanup



Note: Phase 3 sampling results may change the areas somewhat.

Areas 1-12



Aerial view of Areas 1-12

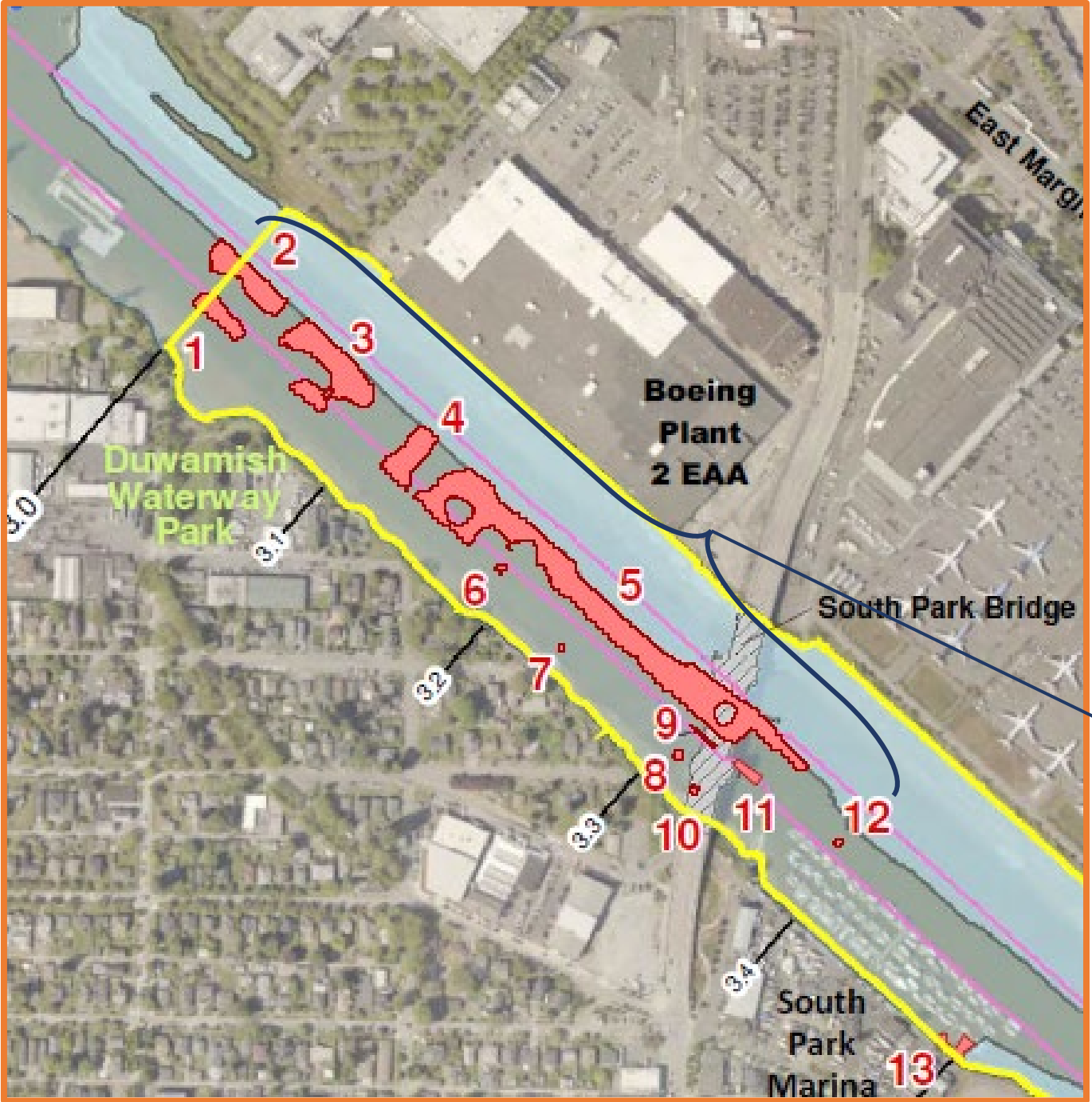
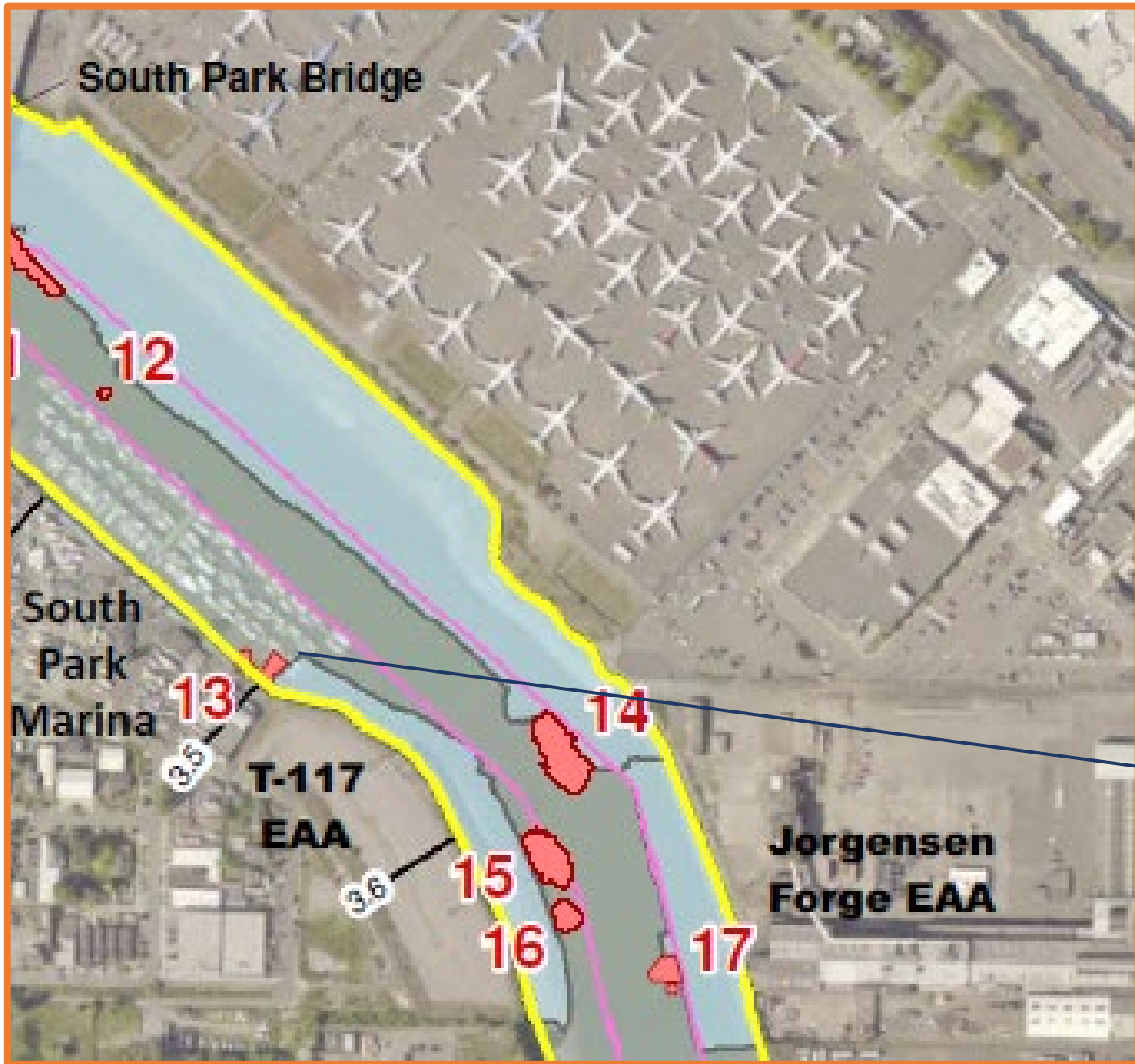


Photo source: Lower Duwamish Waterway Group





Areas 13-17



South Park Marina (by River Mile 3.5)



Photo source: Lower Duwamish Waterway Group





Areas 18-26

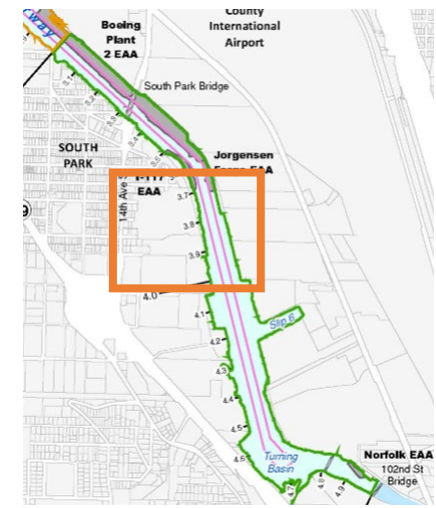


Photo source: Lower Duwamish Waterway Group



River Mile 3.8 East

River
Mile 3.8
East B –
next to
Area 18

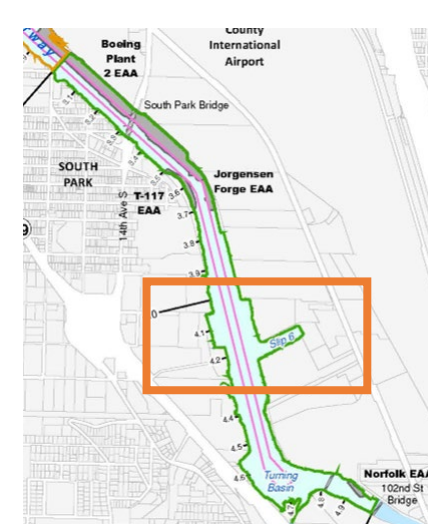


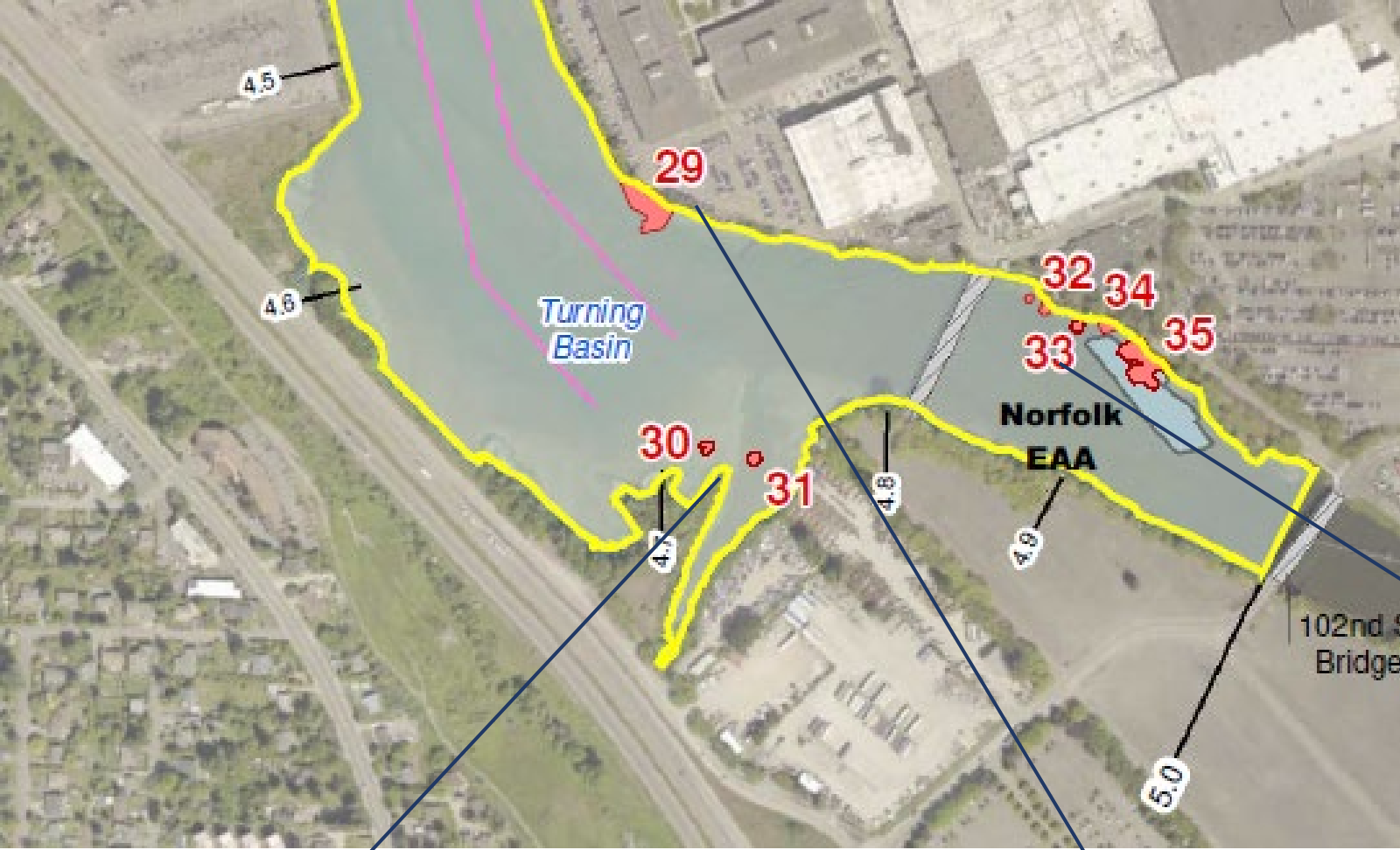
Areas 27-28



Area 27 from north to south

Photo source: Lower Duwamish Waterway Group





Areas 29-35



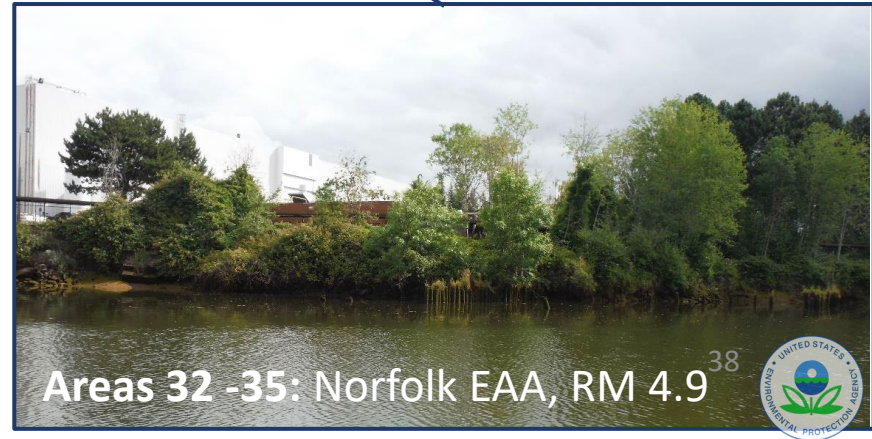
*Photo source:
Lower Duwamish
Waterway Group*



Areas 30 & 31: RM 4.7W



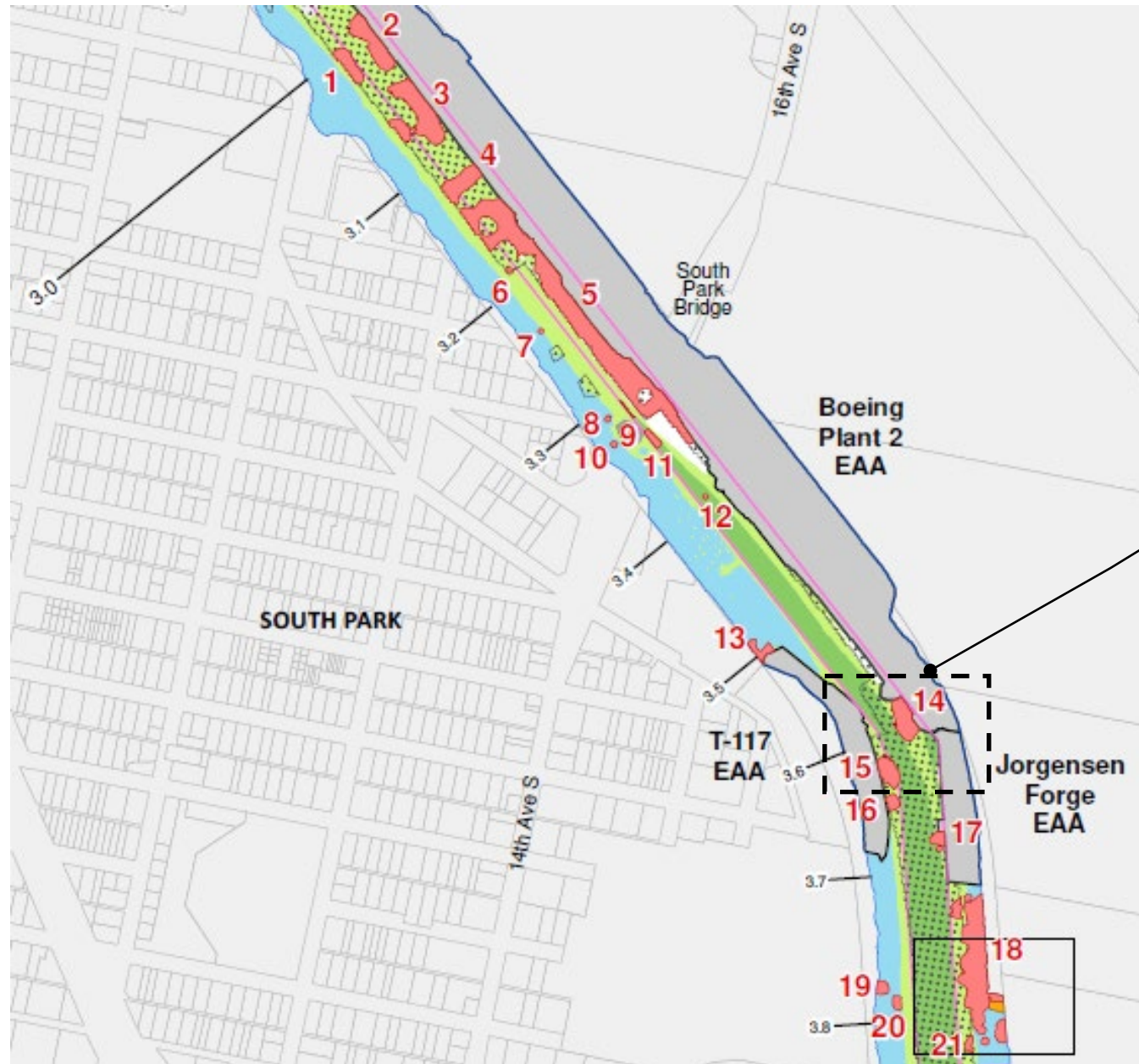
Area 29: RM 4.6E



Areas 32 -35: Norfolk EAA, RM 4.9



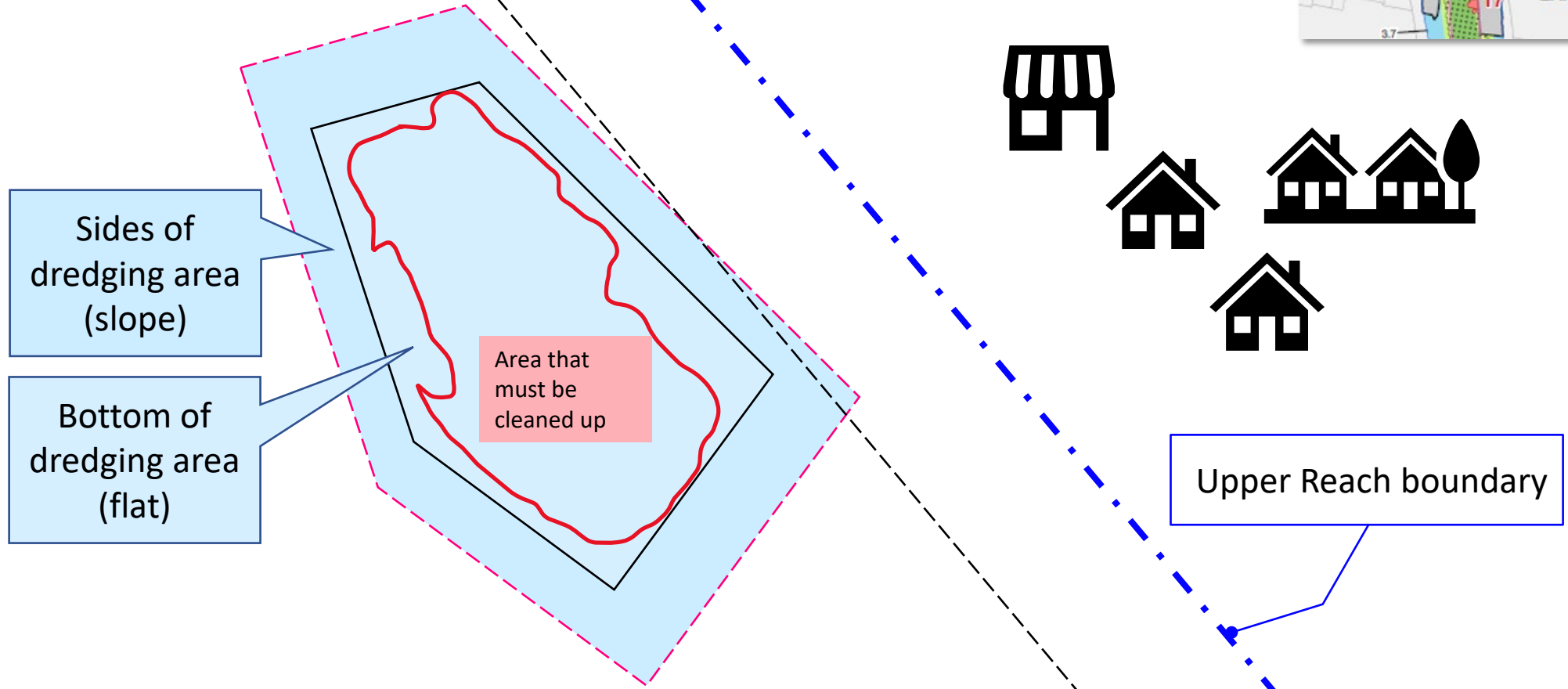
Example of how engineering drawings relate to cleanup areas



Example Area

In the next few slides, we will explore example diagrams showing this small square in greater detail.

This simplified diagram represents some kinds of information shown in the engineering diagrams in the 30% design.



Sides of dredging area (slope)

Bottom of dredging area (flat)

Area that must be cleaned up

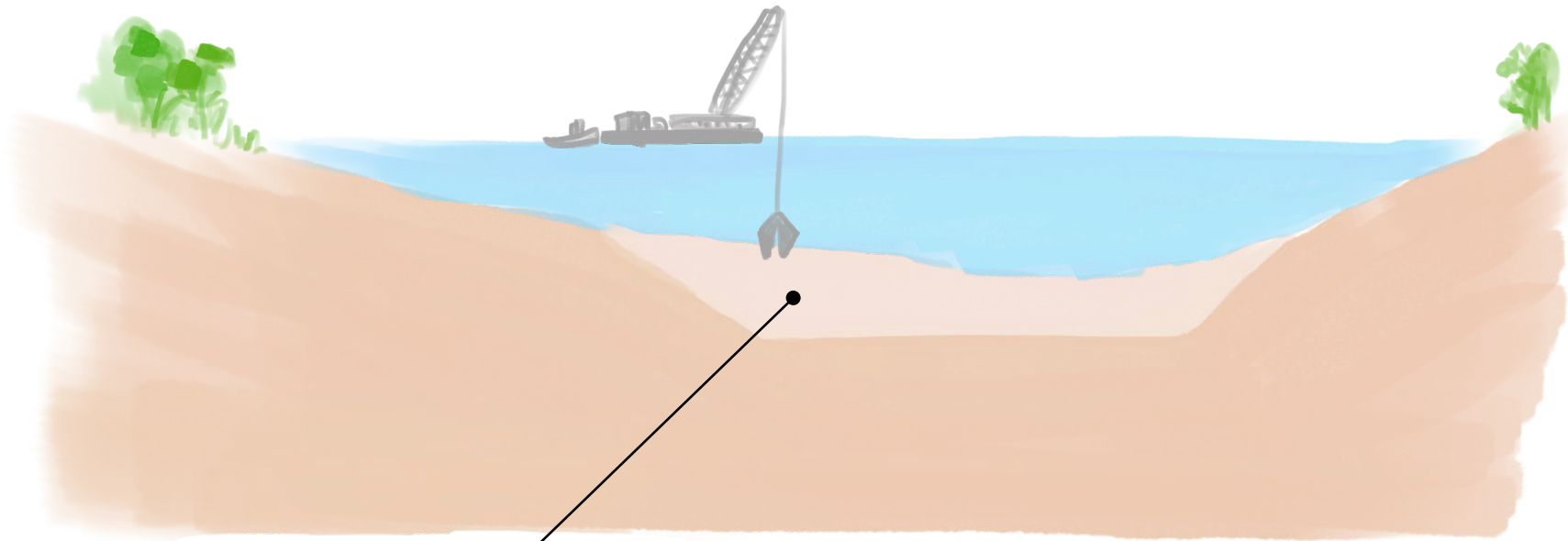
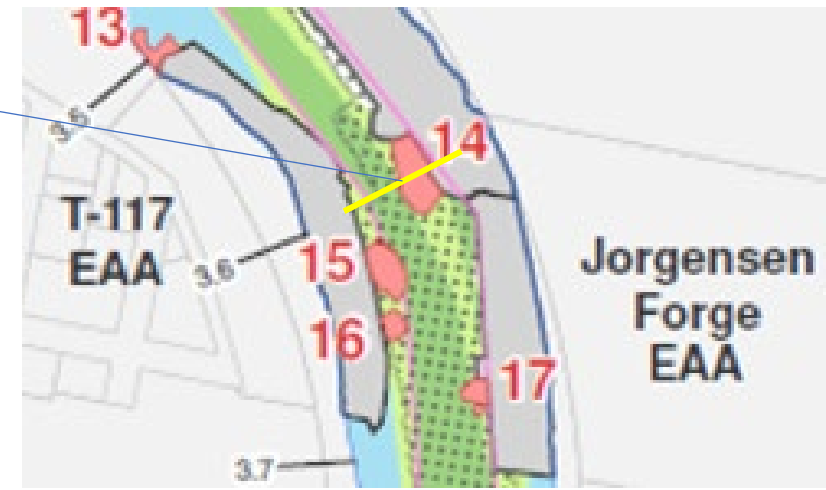
Upper Reach boundary



Channel where boats travel



Cross-section of the river



Sediment to be dredged in cleanup

Visualization of cross-section diagram

PRELIMINARY CHECK PRINT 218+30

7/25/22



Existing ground surface

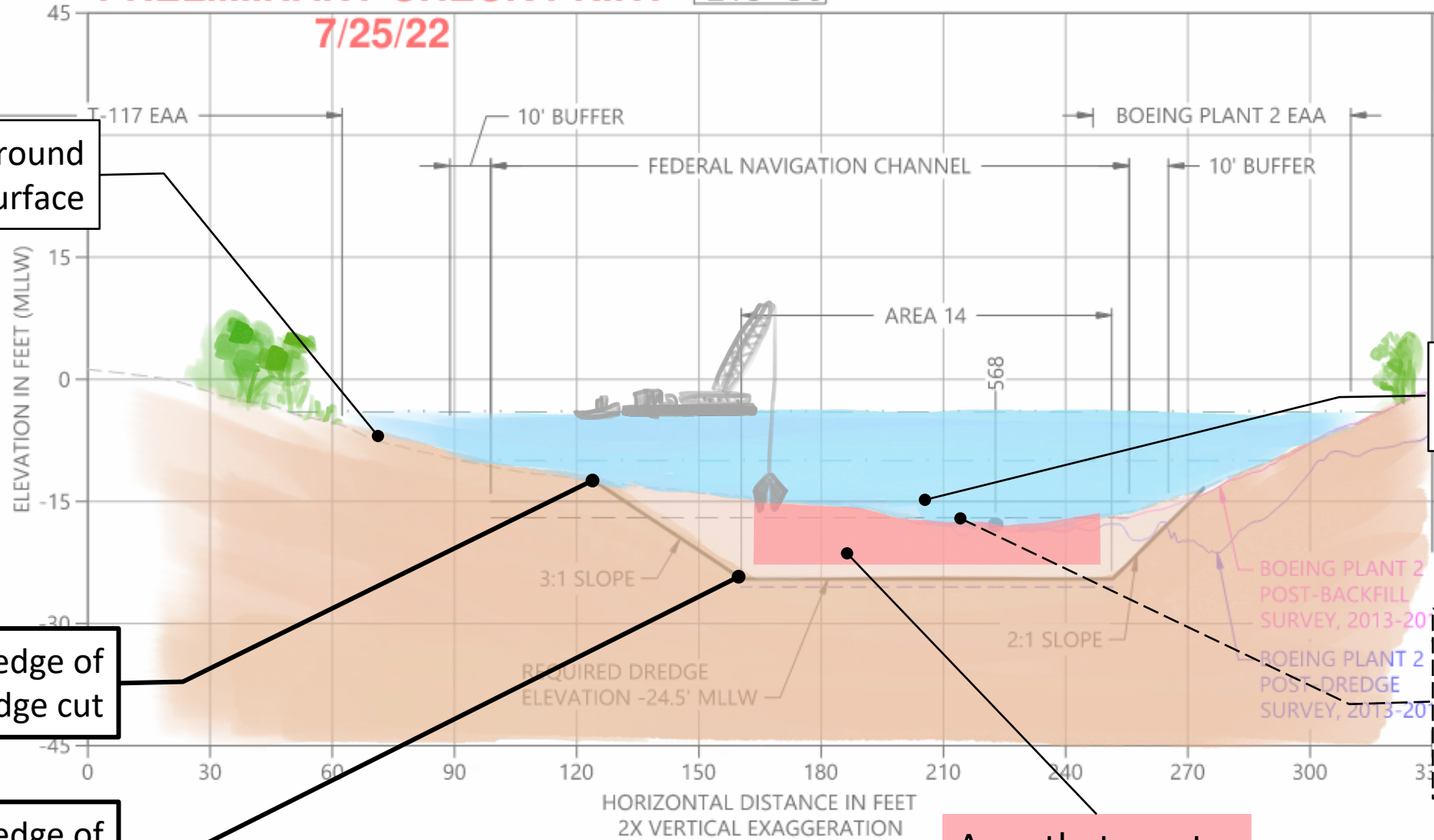
Authorized navigation depth

Top edge of dredge cut

Allowable depth of maintenance dredging

Bottom edge of dredge cut

Area that must be cleaned up

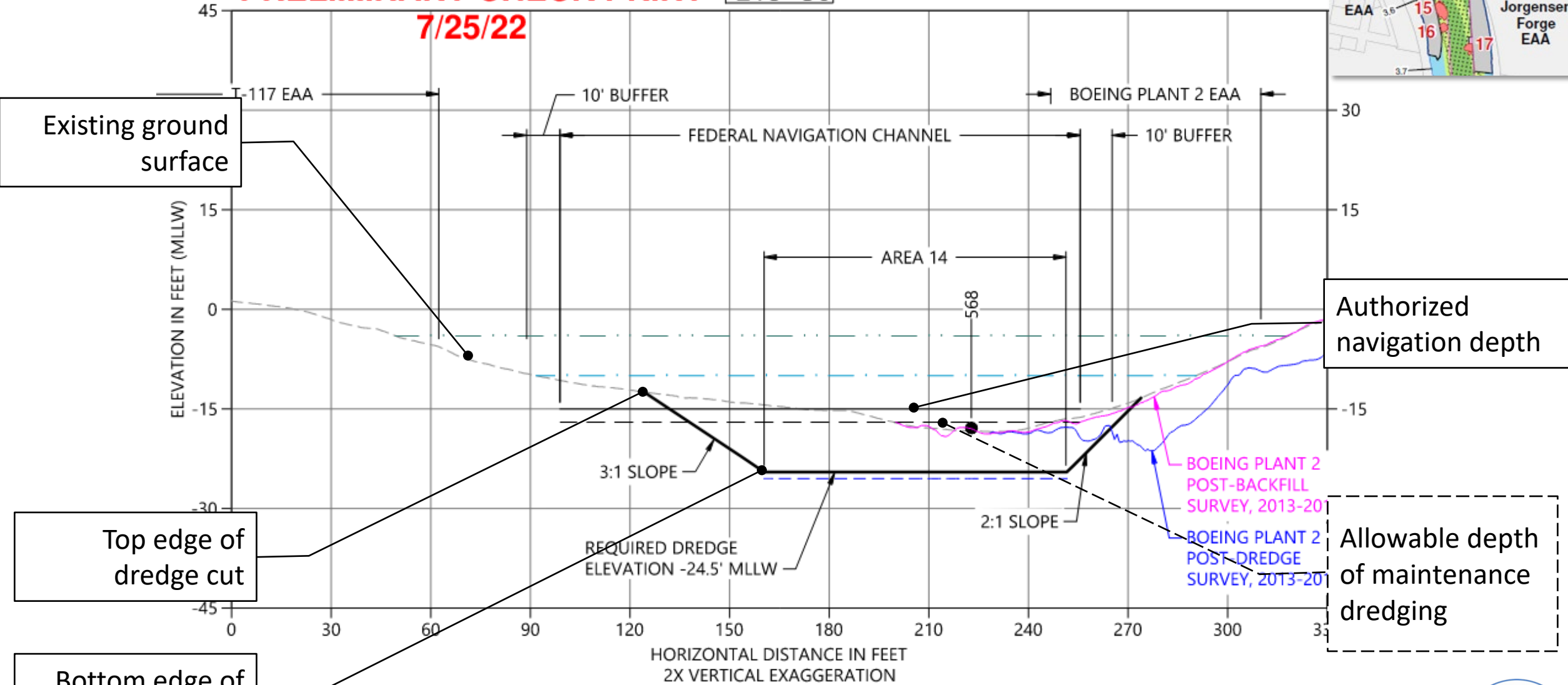


A DREDGE SECTION STA 218+30
C03 HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'



PRELIMINARY CHECK PRINT 218+30

7/25/22



Existing ground surface

Top edge of dredge cut

Bottom edge of dredge cut

Authorized navigation depth

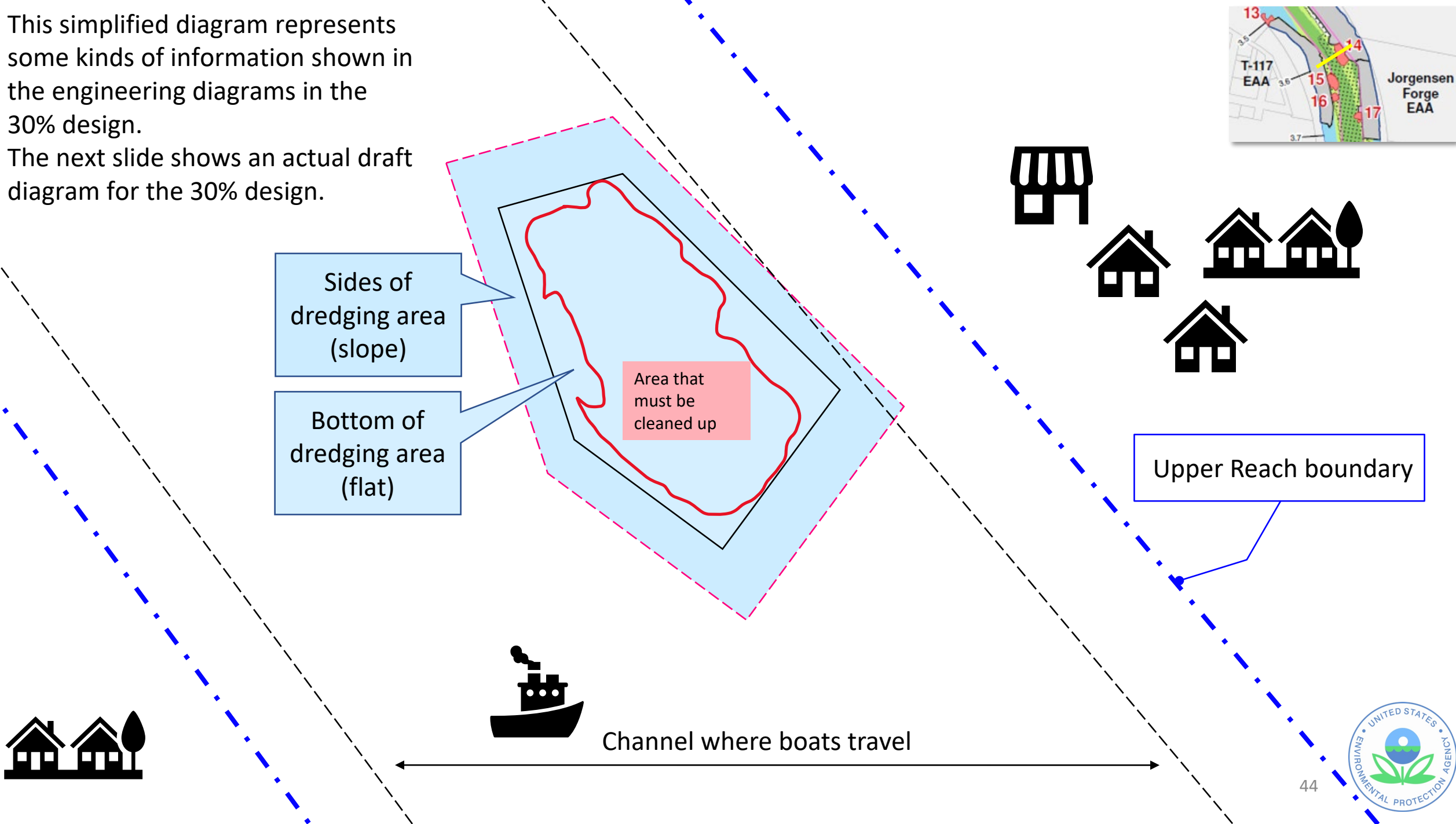
Allowable depth of maintenance dredging

A DREDGE SECTION STA 218+30
C03 HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'



This simplified diagram represents some kinds of information shown in the engineering diagrams in the 30% design.

The next slide shows an actual draft diagram for the 30% design.



RAL Exceedance Area boundary

Bottom edge of dredge cut

Top edge of dredge cut

Post dredge elevation contour

RAL Exceedance Area number

Upper Reach boundary

AREA 14: REQUIRED DREDGE ELEVATION -24.5' M

AREA 15/16: REQUIRED DREDGE THICKNESS 8.0'

PRELIMINARY CHECK PRINT 7/25/22



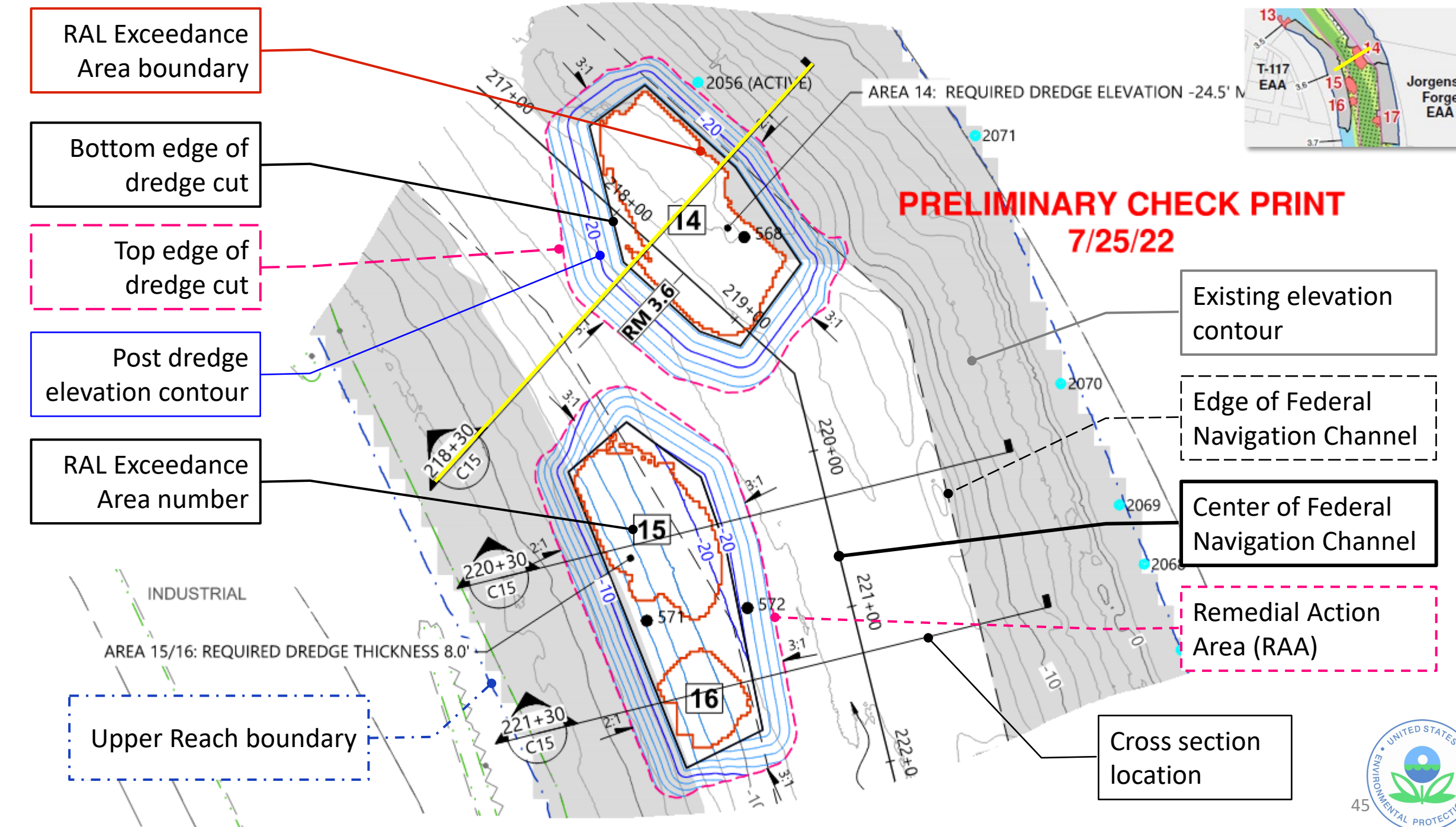
Existing elevation contour

Edge of Federal Navigation Channel

Center of Federal Navigation Channel

Remedial Action Area (RAA)

Cross section location

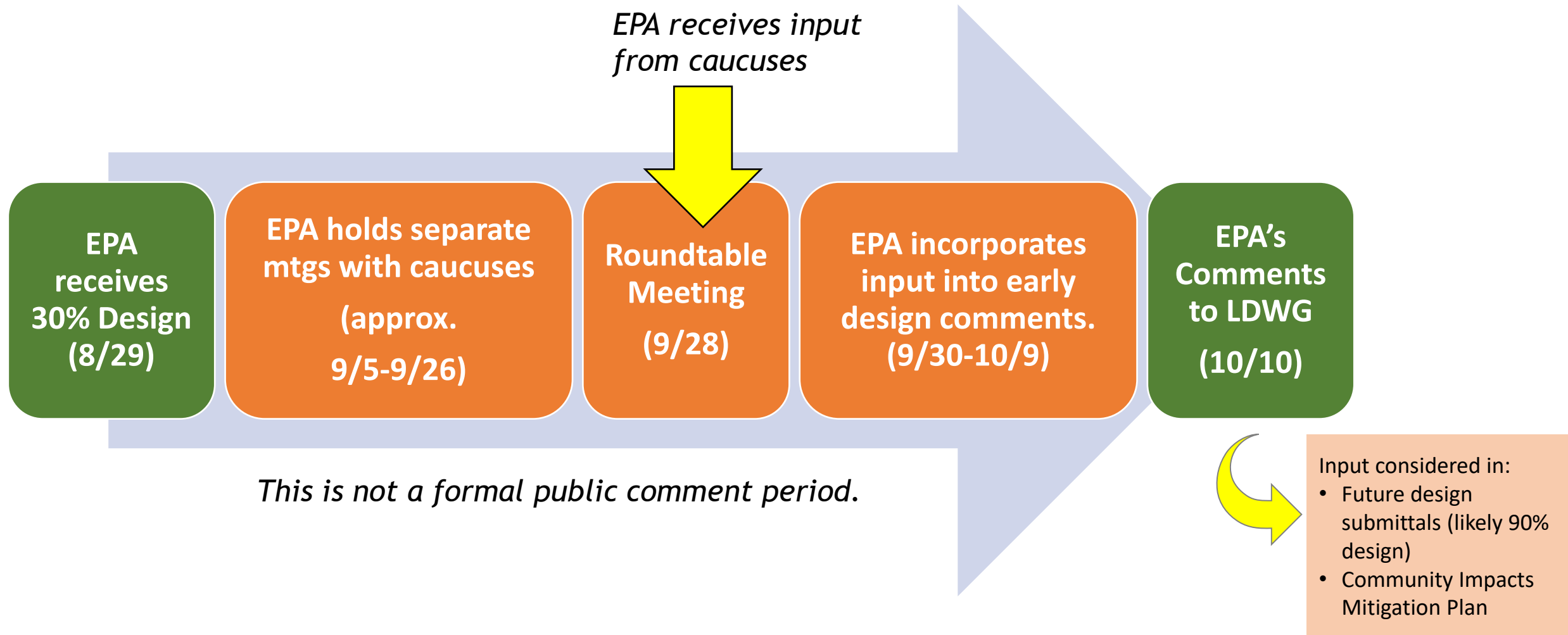




Provide Input to EPA

Activity: How might cleanup in the different parts of the LDW Upper Reach affect you (and others in your caucus)?

Timeline for Input on Upper Reach Early (30%) Design



Potential Considerations & Impacts



Activity – Facilitated Discussion on Potential Community Impacts



Members will be sent to breakout rooms for a facilitated discussion.



Generate a list of considerations and impacts.



Report out in full group.