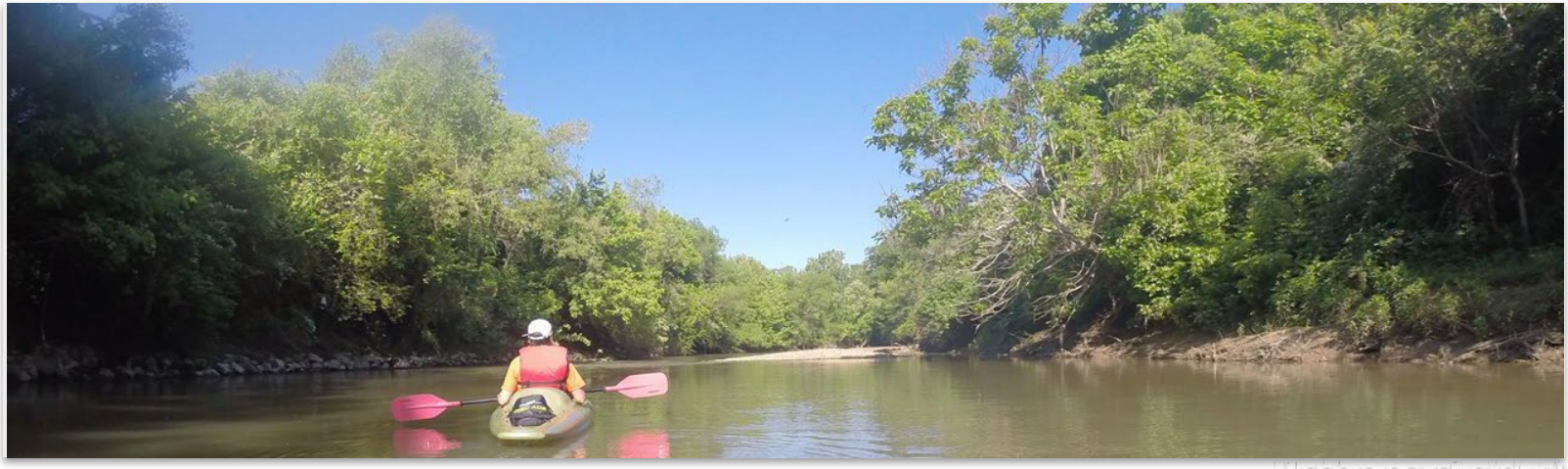
Anniston PCB Site – Operable Unit 4
How Sediment Dredging Works
July 21, 2026

Informational Meeting Series

- Meeting #1 (June 23, 2026)
  - What Makes a Cleanup Necessary?
- **Meeting #2 (Today's Meeting)**
  - How Sediment Dredging Works
- Meeting #3 (August 11, 2026)
  - Choccolocco Creek: Where Things Stand Today
- Meeting #4 (September 29, 2026)
  - Understanding Sediment and Surface Water
- Meeting #5 (October 6, 2026)
  - Why Scientists Study Fish
- Meeting #6 (November 3, 2026)
  - Tracking Fish Movement in Logan Martin Lake

Meeting Ground Rules

- Respectful setting for our meeting participants
- For questions:
  - Hold questions until the end of the presentation
  - Step up to the microphone and introduce yourself
  - Each person may ask a single question, kept to under three minutes
  - Additional opportunities for questions are available
- Please sign the acknowledgment waiver as this meeting may be audio and video recorded



Presentation Overview

- Safety moment for slips, trips and falls
- Background information for the Anniston PCB Site
- Summary of the cleanup remedy selected by EPA for Operable Unit No. 4 (OU-4)
- How sediment dredging works:
  - Sediment removal
  - Dewatering and off-site transportation and disposal
- Sediment resuspension and release during dredging and dredging project design considerations
- Monitoring to protect water quality
- Questions

Introducing Alan Fowler

Alan Fowler
Senior Principal,
Geosyntec
Consultants

- Senior Principal at Geosyntec Consultants, based in Massachusetts, with more than 25 years focused on the assessment and remediation of contaminated sediment
- Nationally recognized expert in contaminated sediment management and in developing technical and regulatory strategies for complex sediment sites
- Specializes in dredging and capping design for sediment containing PCBs, coal tar/NAPL, dioxins/furans, and mercury
- Delivers engineering plans, specifications, cost estimates, and contracting strategies for sediment remediation under RCRA and CERCLA
- Notable work: 2.6-million-cubic-yard PCB river dredging and capping, a Boston Harbor confined disposal facility, and the Beech Creek Superfund removal action
- Education: M.S., Civil Engineering, UMass Lowell; B.S., Civil Engineering, University of Maine

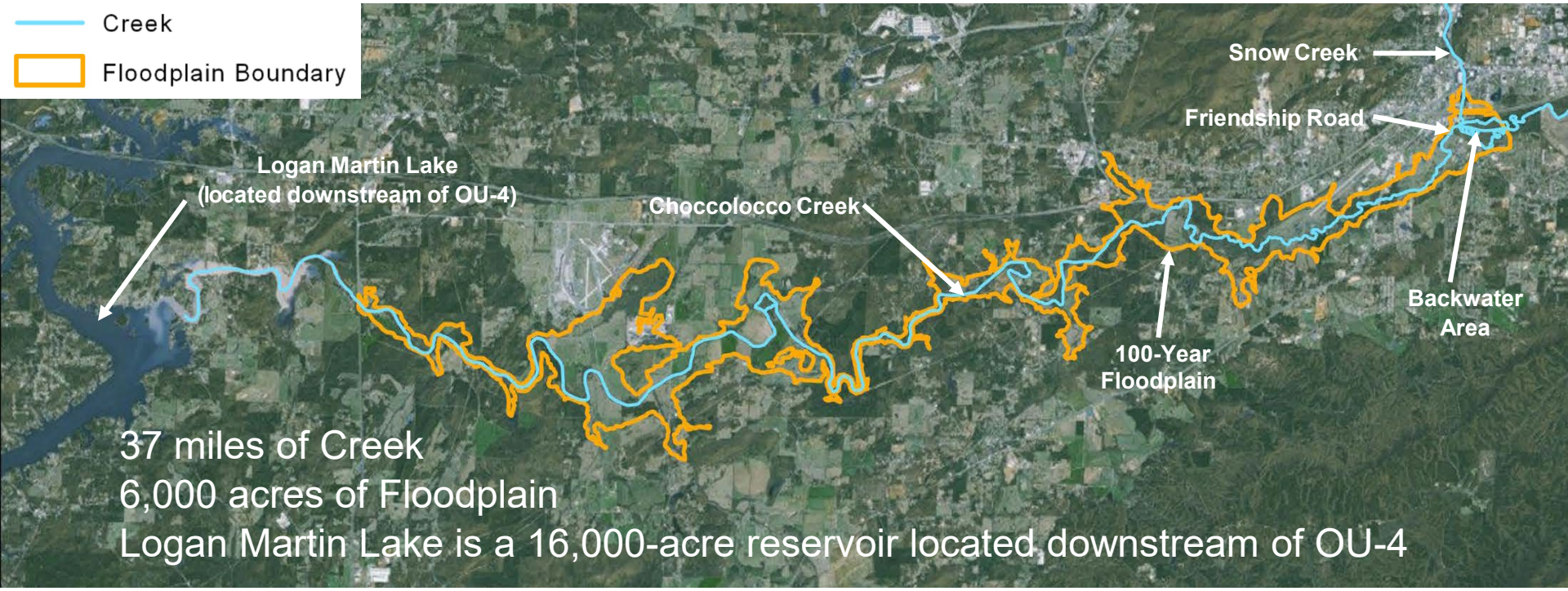
Safety Moment for Slips, Trips & Falls

Slips, trips and falls (STFs) account for almost half of the recordable injuries that occur during dredging projects

Primary STF Risks	Mitigating STF Risks
Wet surfaces	Engineer safe walking pathways
Trip obstructions	Control daily housekeeping
Access and level changes	Manage vessel access and transfers
Operating conditions	Procedural checklists, inspections, documentation and follow-up

Takeaway: Treat slips, trips and falls (STFs) as an operational control and a not housekeeping afterthought

Overview of OU-4



- Snow Creek and its floodplain between Highway 78 and the confluence of Snow Creek and Choccolocco Creek
- Backwater area along Choccolocco Creek at its confluence with Snow Creek (just upstream of Friendship Road)
- Choccolocco Creek and its floodplain from the confluence with Snow Creek downstream to the confluence of the Coosa River

OU-4 Remedy Selected by EPA

- Residential properties
- Operation and Maintenance for previously implemented Interim Measure areas
- Nonresidential floodplain soils
- Stabilization of select creek bank areas for source control purposes
- **Removal of in-creek sediment** and monitored natural recovery (MNR)

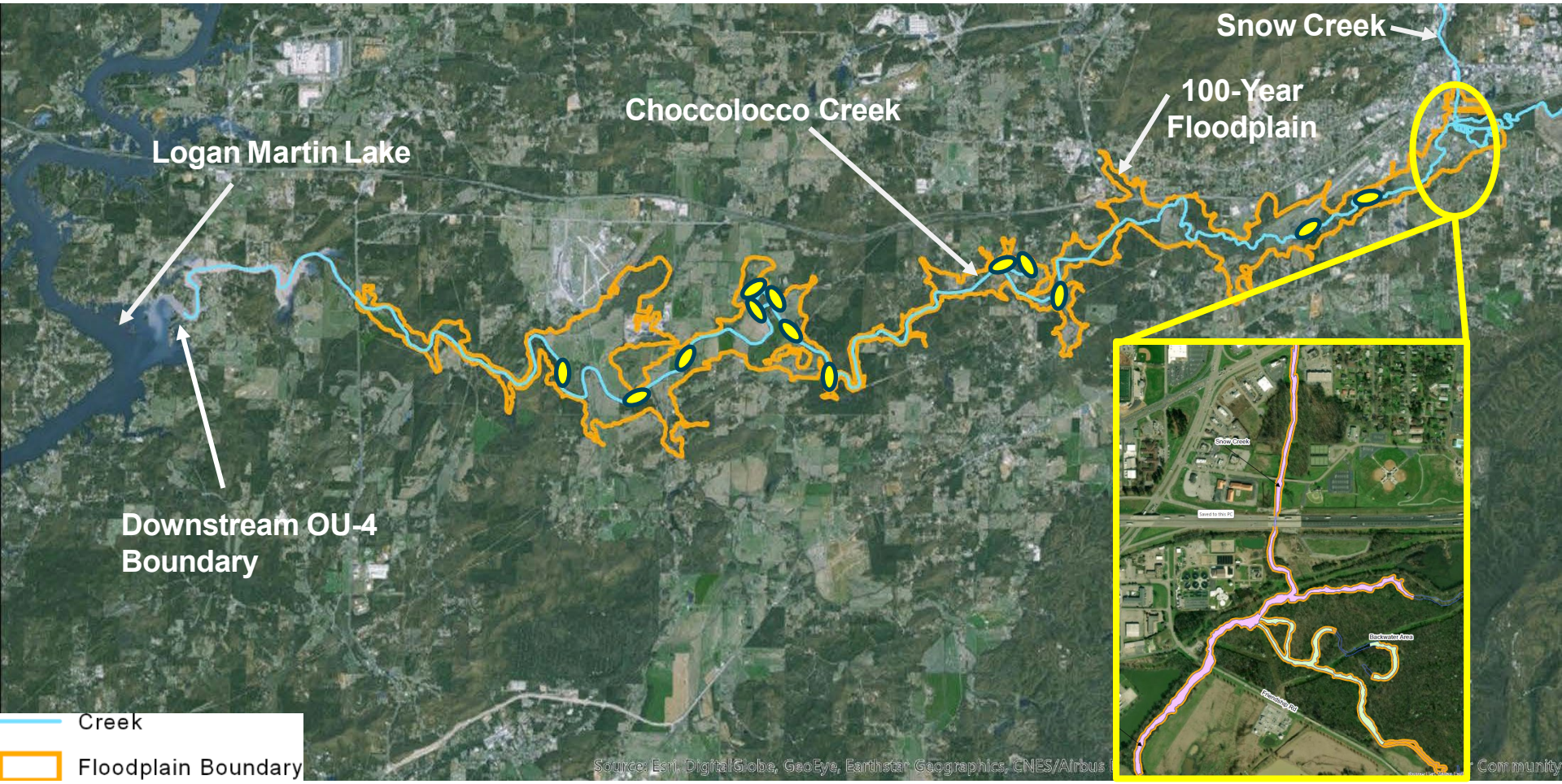
The Consent Decree for OU-4 remedial design/remedial action (RD/RA) is currently under negotiation with United States Environmental protection Agency (EPA)

The remedy element in **bold font** is the focus of today's informational meeting

Sediment Removal and Creek Bank Stabilization Includes Snow and Choccolocco Creeks

Remediation Element	Description
Source Control	Removal for source control combined with MNR
Removal Criteria	In-creek sediment and eroding creek banks with PCB concentrations greater than 2.6 mg/kg
Snow Creek	Removal of sediment through the OU-4 portion of Snow Creek
Choccolocco Creek	Sediment removal for various portions: • Backwater area upstream of Friendship Road • Reach immediately downstream of Friendship Road • 13 discrete sediment deposits located further downstream
Predesign Investigations	Large-scale predesign investigations for sediment and creek bank areas

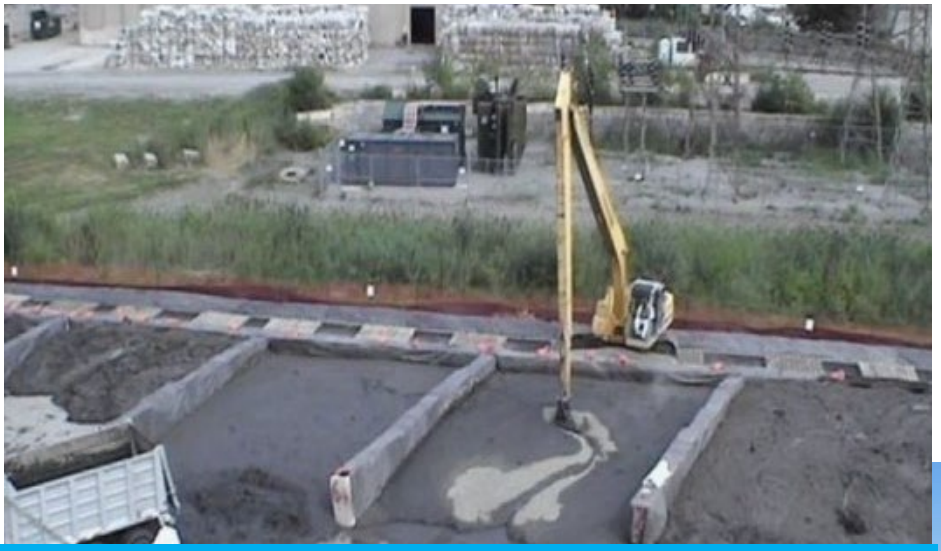
Sediment Removal Areas Identified for the OU-4 Cleanup



Dredging to Remove Sediment with PCBs Above the Remedial Action Level

Construction Activity	Description
Sediment Access	Sediment in Snow Creek will be accessed for removal (dredging) from the adjoining creek bank areas
Vegetation Clearing	Creek bank vegetation (except larger trees) will be cleared along applicable portions of Choccolocco Creek to provide access
Access Construction	Temporary roadways and operating pads extending into the creek may also be constructed to access Choccolocco Creek sediment deposits
Dredging Equipment	Long-stick excavators will likely be used for dredging operations
Sediment Transport	Off-road trucks will transport dredged sediment to staging and/or dewatering areas

Following Dredging – Sediment Will be Dewatered and Transported Off-Site for Disposal



Sediment Dewatering

- Dredged sediment will be staged for dewatering and may require an admixture of Portland Cement (or other material) to facilitate over-the-road transport

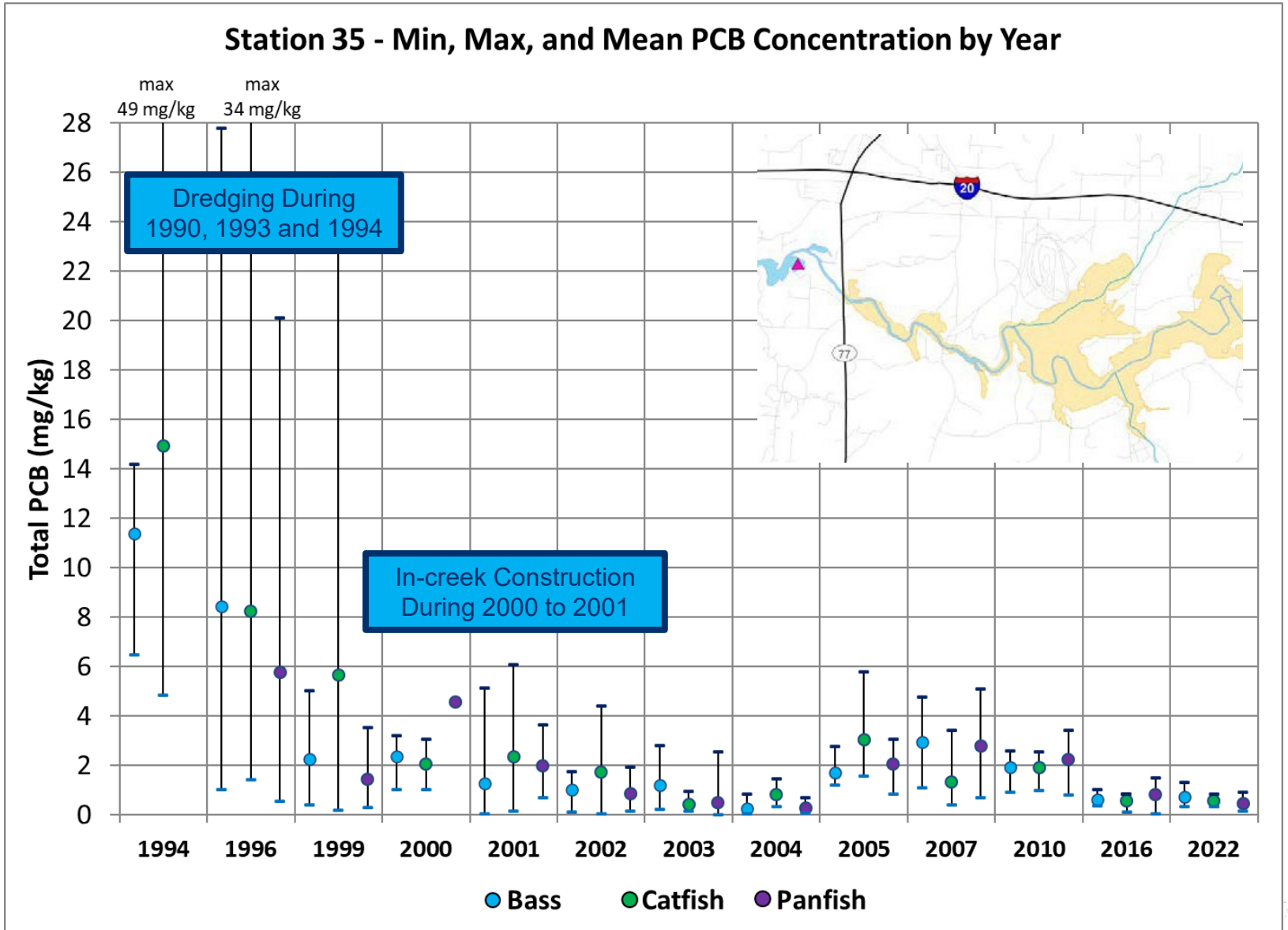
- Off-Site transportation and disposal will be conducted by licensed over-the-road hauling companies

Off-Site Transportation and Disposal

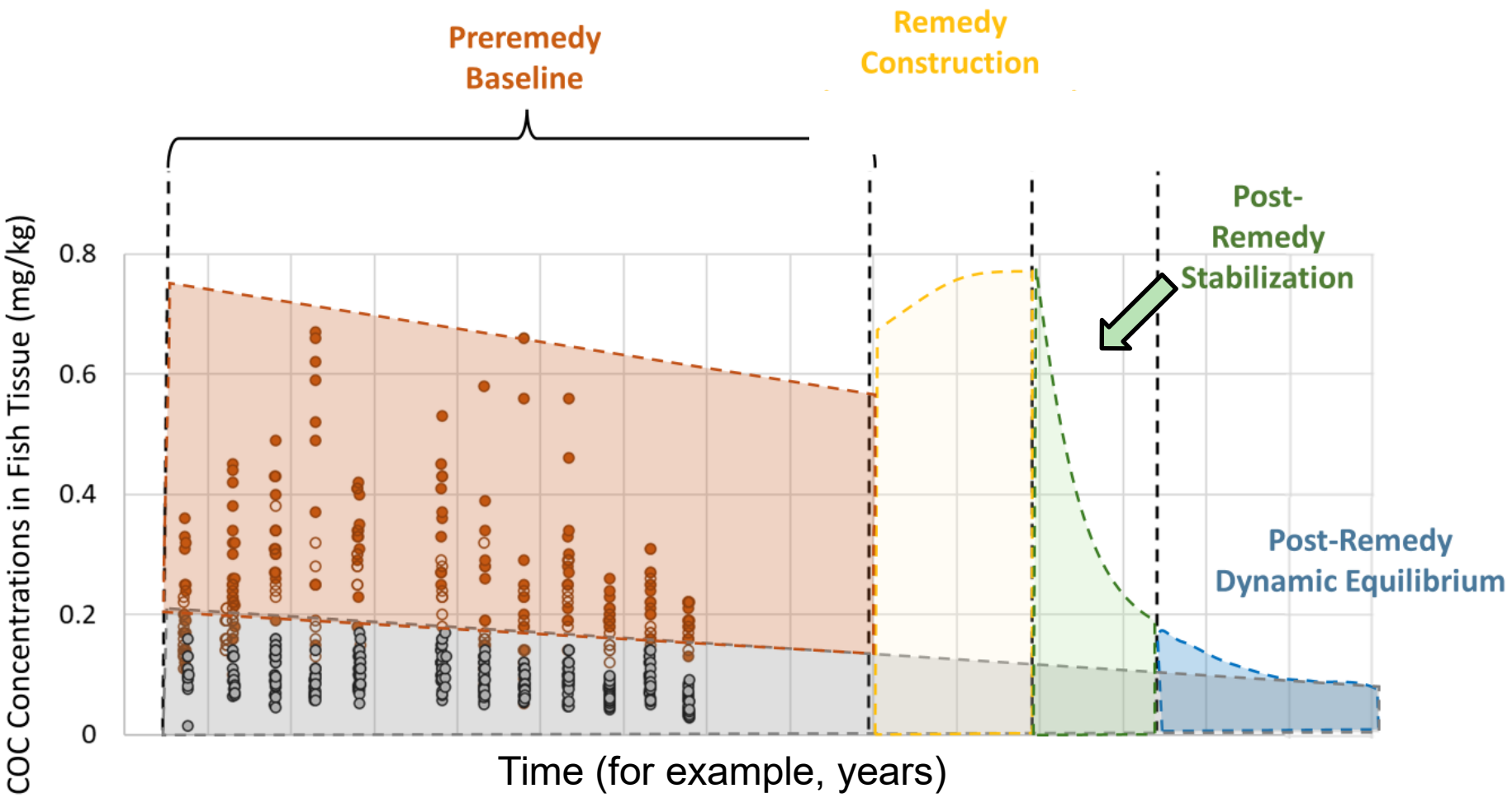
Dredging and On-water Support Operations

- Dredging includes physical disturbance by definition…from Merriam-Webster, dredging is a verb: “to dig, gather, or pull out with…”
- Dredging support activities such as equipment movement can also be disruptive
- Dredging is not precise
- Control technologies, monitoring equipment, and relevant experience are available to minimize disruptions during dredging

PCB Concentrations in Fish Following Historical Dredging in Choccolocco Creek

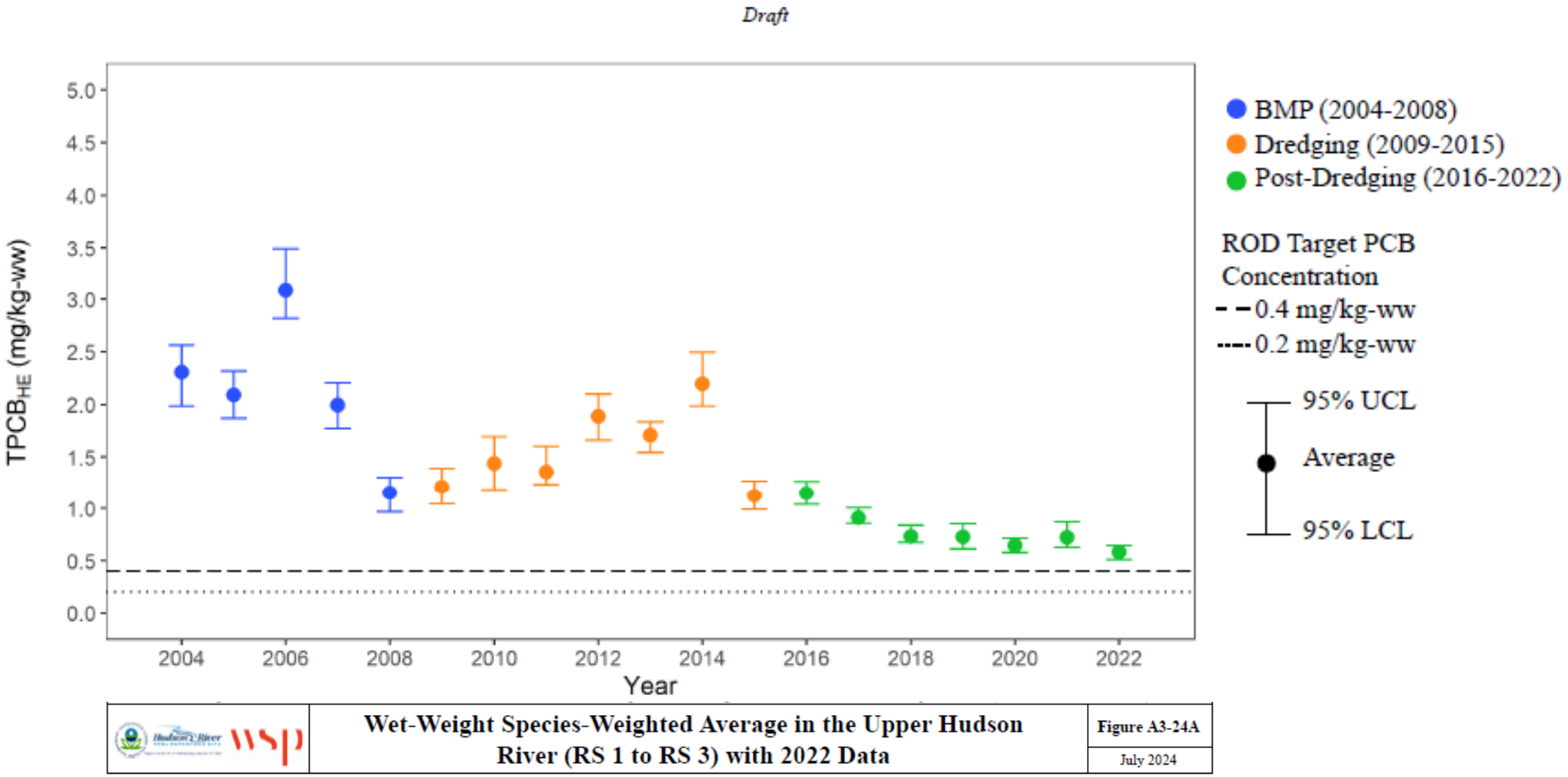


Conceptual Fish Concentration Trends Over Time for an Example Site



Gray box is representative of the range and trend in concentrations in regional background.

Lessons Learned from Other Sites: Hudson River PCBs Site (New York State)



BMP = Baseline Monitoring Program

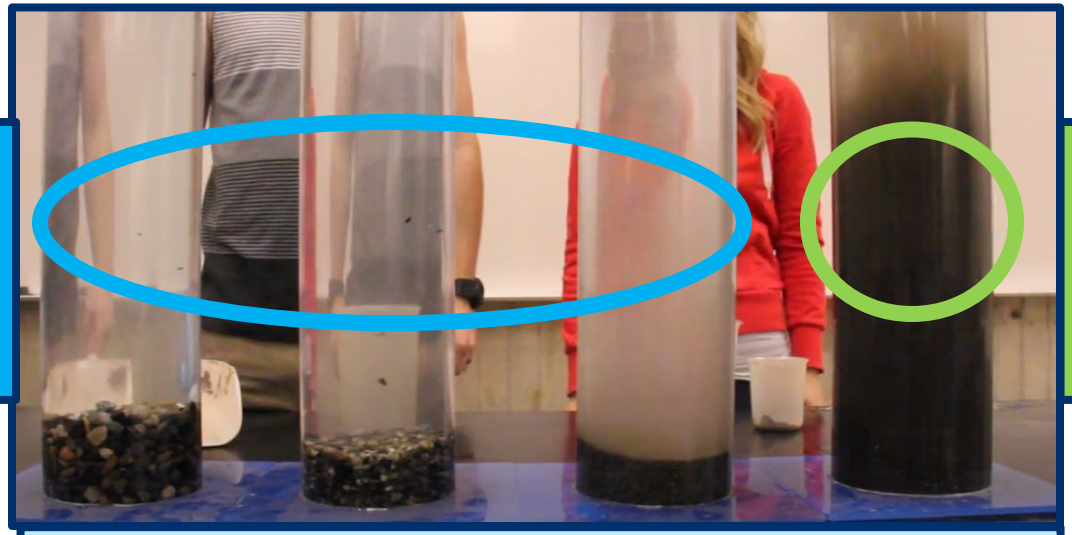
Designing a Dredging Project to Minimize Sediment Resuspension and Release

- Dredging to remove sediment in OU-4 will include some level disruption to the water column
- A small amount of sediment may be released
- Recreation swimming will be safe in areas downstream of dredging activities
- Factors to lessen sediment resuspension and release are important for designing:
  - Operational controls
  - Engineering controls
  - Best management practices (BMPs)
  - Water quality monitoring

Material Properties Affecting Sediment Resuspension and Release

- Sediment and PCB properties:
  - Sediment in **high energy** areas: Coarser-grained materials with low PCB concentrations that will quickly settle-out of the water column
  - Sediment in **low energy** areas: Finer-grained sediment with higher PCB concentrations that will more slowly settle-out of the water column
- PCBs will stay adsorbed to the sediment particles

Sediment Typically Found in High-Energy Areas



Sediment Typically Found in Low-Energy Areas

Coarse-Grained → Fined-Grained

Sediment From a Typical High Energy Area

Sediment Release During Physical Disturbance

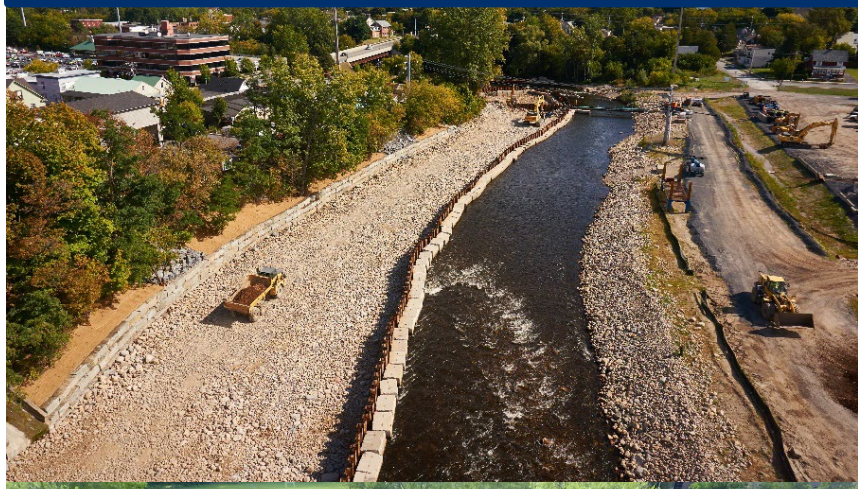
Operational Factors Affecting Sediment Resuspension and Release

- Surface water flow characteristics for the high and low energy areas
- Debris is a factor that will reduce dredge productivity
- Limited debris is present in Choccolocco other than fallen trees
- Operational considerations include:
  - Work sequence
  - Number of concurrent in-creek operations
  - Surface water flow conditions

Example BMPs for Dredging

- Isolate dredge area from the other portions of the waterway or re-route surface water flow
- Partially divert flows to reduce surface water flow velocities in the dredge area
- Commonly used silt curtains only provide limited protection of water quality
- Work sequence considerations:
  - Conducting creek bank work prior to dredging
  - Dredging from upstream-to-downstream including upstream OUs

Isolation of a Dredge Area



Partial Diversion

Example BMP for the OU-4 Portion of Snow Creek: Pump-Around During Low Flow Conditions

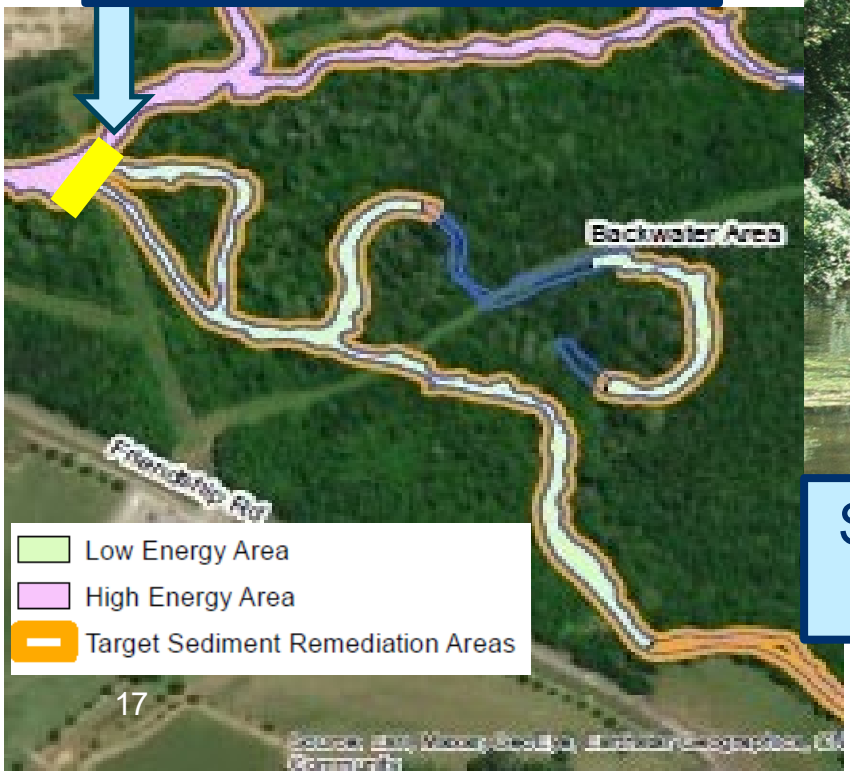
- Temporary dams are placed upstream and downstream of dredge area
- Surface water flow is rerouted around dredging and discharged downstream
- Dams are removed at night and when higher flow conditions are expected

Surface Water Flow Being Rerouted Around the Work Area

Snow Creek During Low Flow Conditions

Example BMP for Low Energy Creek Areas – Hydraulic Isolation

Potential Sheet Pile Wall Location



Sheet piling can be used to isolate a low energy portion of a waterway

Example BMPs for the High Energy Creek Areas

Isolating a creek bank area and narrow shoreline sediment deposit prior to dredging

Surface water flow diversion to lower flow velocities for dredging a larger sediment deposit

Real-time Water Quality Monitoring

- Real-time surface water monitoring provides information to minimize water quality impacts during dredging
- Monitoring turbidity provides a numerical result based on the ability of light to pass through surface water
- Monitoring accounts for background
- Program generally includes:
  - Watch levels and reduce dredging rates
  - Addition of more controls and/or stop dredging
- Monitoring results can be viewed by multiple teams in real-time:
  - Engineering oversight
  - Construction personnel
  - Agency oversight

Floating platform to collect and report real-time turbidity results

EPA's Proposed Long-term Monitoring Program for OU-4

- Baseline samples to be collected during the Remedial Design
- Sampling frequencies include:
  - Years 1, 3 and 5 after remedy implementation
  - Once every 5 years thereafter
- Multiple media would be sampled:
  - Fish tissue and forage fish
  - Sediment
  - Surface water
  - Pore water
  - Fish tracking
- Monitoring results will be evaluated by EPA as part of the five-year review process


Questions

Get in Touch with Solutia

Scan, email, or call — connect with the Solutia team today.

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