

Application of Remedial Action Levels - Intertidal Areas

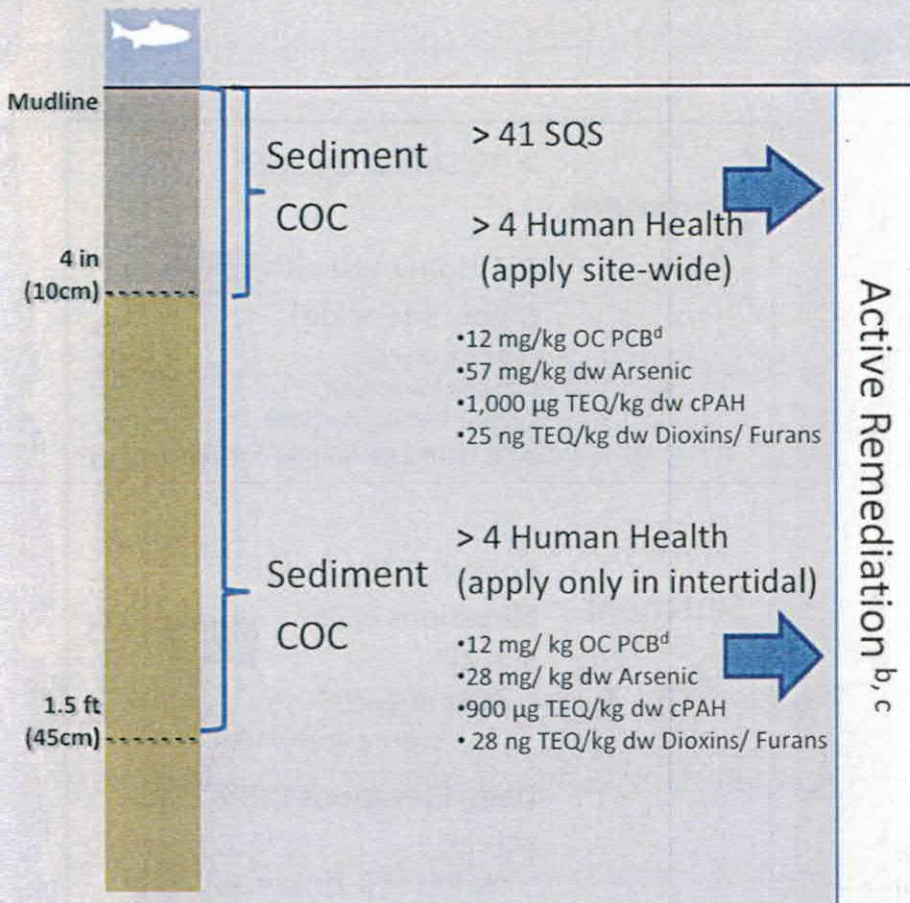
+11.3 ft to -4 ft MLLW: 113 acres^a

Recovery Category 1 (11 Acres)

Natural Recovery of Sediments Predicted to be Limited

Depth Interval:

Remedial Action Levels^f:

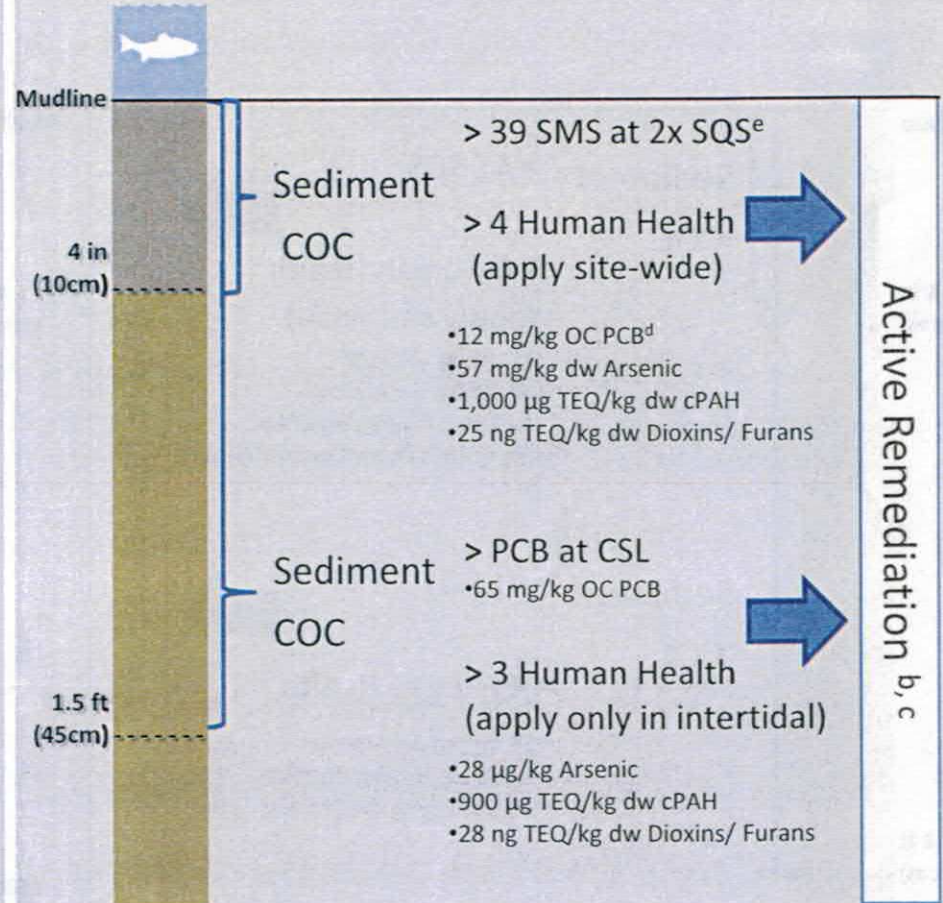


Recovery Categories 2 and 3 (102 Acres)

Natural Recovery of Sediments Predicted to Occur

Depth Interval:

Remedial Action Levels^f:



a) 113 intertidal acres excludes 15 intertidal acres in Early Action Areas.

b) Clam Habitat Areas that are dredged or capped must have a minimum of 4 ft clean cap material.

c) Active remediation= dredge, partial dredge and cap, or ENR. See remedial technology applications in flowcharts in Figures 18a and b.

d) The dry weight equivalent of this RAL (240 µg/kg dw PCB assuming 2% organic carbon) was used in the F5 for mapping purposes.

e) RAL is "2X SQS and not to exceed CSL." This RAL for surface sediments would only be used for 39 of the 41 SQS COCs, and would not be used for any of the four human health risk driver COCs (PCBs, arsenic, cPAH, and dioxins/furans). If SQS is not met 10 years after remedial action, contingency actions may be needed.

f) Example: If any sediment COC concentrations in the top 10 cm are greater than the 41 SQS RALs, then active remediation is required. Also, if any COCs in the top 10 cm are greater than the four HH RALs, then active remediation is required.

COC = Risk Driver Contaminant of Concern
 SQS = Washington Sediment Quality Standard
 OC = organic carbon

Application of Remedial Action Levels - Subtidal Areas

-4 ft MLLW and Deeper: 299 acres^a

Recovery Category 1 (66 Acres)

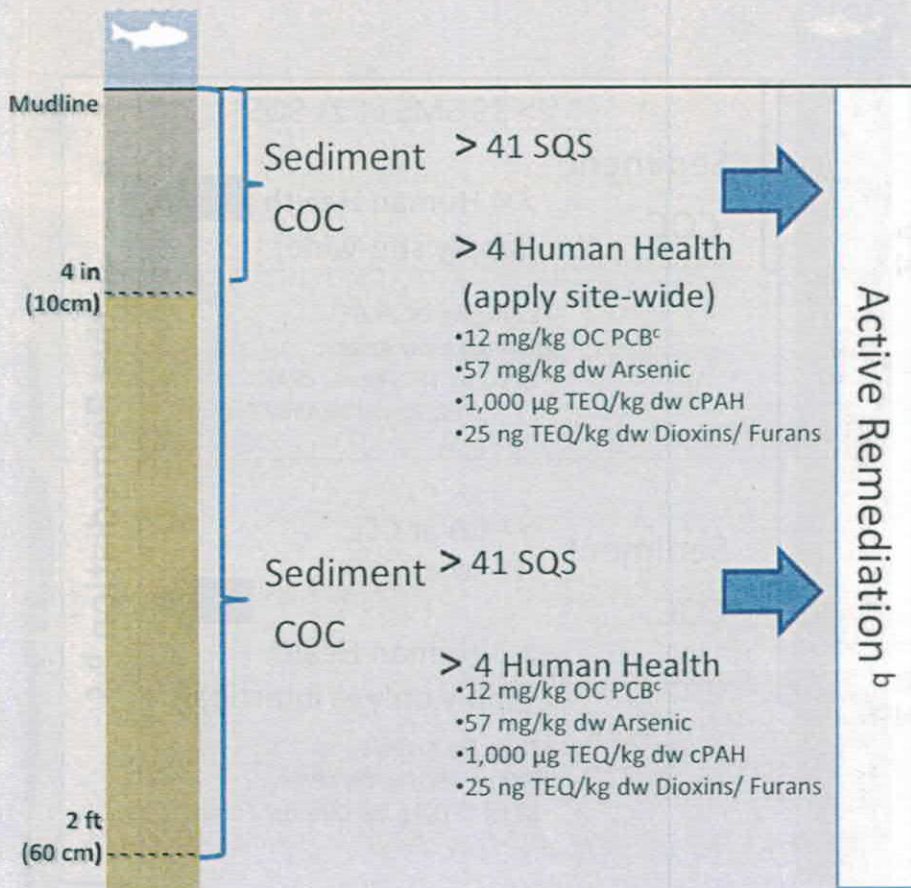
Natural Recovery of Sediments Predicted to be Limited

Recovery Categories 2 and 3 (233 Acres)

Natural Recovery of Sediments Predicted to Occur

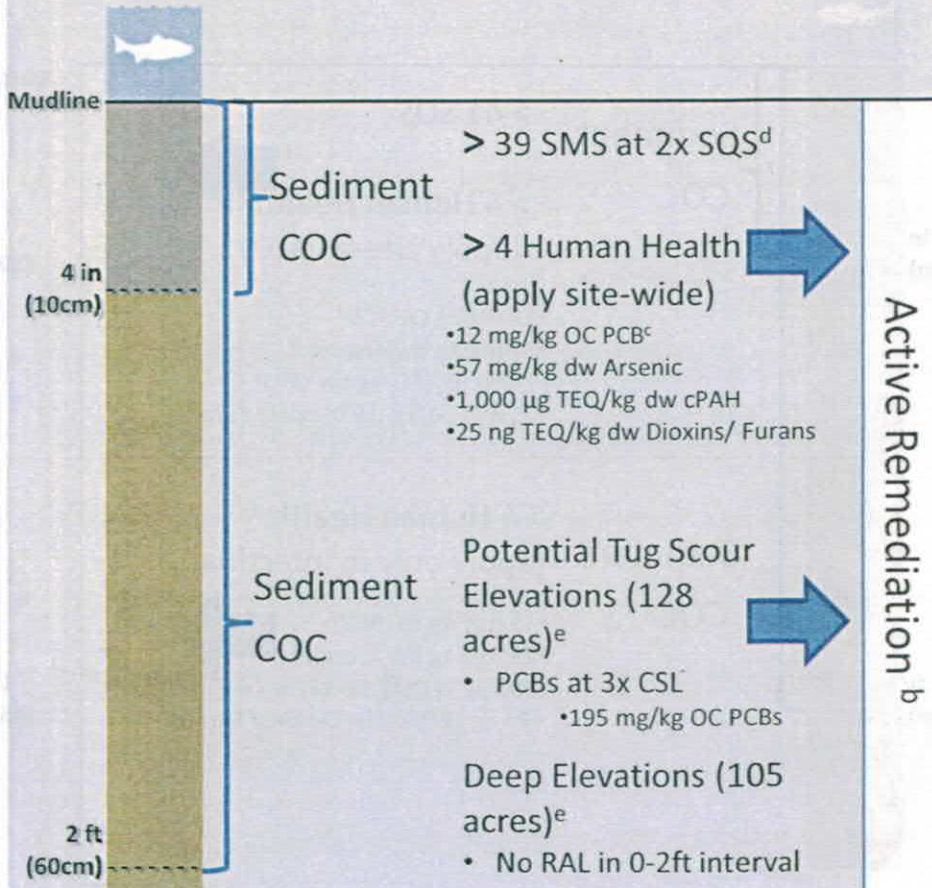
Depth Interval:

Remedial Action Levels:



Depth Interval:

Remedial Action Levels:



Notes:

- a) 299 subtidal acres - excludes 14 subtidal acres in Early Action Areas.
- b) Active Remediation = dredge, cap, ENR, or a combination thereof. See remedial technology applications in flowcharts in Figures 18a and b.
- c) The dry weight equivalent of this RAL (240 µg/kg dw PCB assuming 2% organic carbon) was used in the FS for mapping purposes.
- d) RAL is "2XSQS and not to exceed CSL." This RAL for surface sediments would only be used for 39 of the 41 SQS COCs, and would not be used for any of the four human health risk driver COCs (PCBs, arsenic, cPAH, and dioxins/furans). If SQS is not met 10 years after remedial action, contingency actions may be needed.
- e) Potential tug scour elevations are shown in Figure 3 of the Supplemental Scenarios Memo. These are defined as -4 to -24 ft MLLW north of 1st Ave S Bridge and -4 to -18 ft MLLW south of 1st Ave S Bridge. Deep elevations are defined as deeper than -24 ft MLLW north of 1st Ave S Bridge and deeper than -18 ft MLLW south of 1st Ave S Bridge.

COC = Risk Driver Contaminant of Concern
 SQS = Washington Sediment Quality Standard
 OC = organic carbon