

# APPENDIX G

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## Applicable or Relevant and Appropriate Requirements (ARARs)

## Appendix G Applicable or Relevant and Appropriate Requirements (ARARS) and Other Requirements to be Considered

**Table G-1. ARARs—cleanup levels**

Medium	Standard/Criterion	Citation	Comments and Substantive Requirements
<b>ARARs</b>			
Sediment	Criteria used to identify sediments that have no adverse effects on biological resources and correspond to no significant health risk to humans.	Sediment Management Standards (WAC 173-204)	SMS cleanup levels serve as ARAR for development of removal action levels. Cleanup levels have not yet been selected for the LDW Superfund Site..
Soil and Groundwater	State cleanup levels for soils	Model Toxics Control Act (WAC 173-340, Section 740 and 745)	Applicable for soil within areas to be completed as upland in the Early Action Area.
	State cleanup levels for groundwater	Model Toxics Control Act (WAC 173-340, Section 720)	Potentially applicable to groundwater as necessary to protect adjacent surface water.
<b>Other Requirements to be Considered</b>			
<b>Surface Water</b>	Ambient water quality criteria for the protection of aquatic organisms and human health.	Federal Water Pollution Control Act/ Clean Water Act (CWA) (33 USC 1251–1376; 40 CFR 100–149) 40 CFR 131	MTCA requires the attainment of water quality criteria where relevant to the circumstances of the release. <ul style="list-style-type: none"> <li>Removal action plans and design will include measures to comply with surface water standards during removal action implementation.</li> </ul>
	State water quality standards; conventional water quality parameters and toxic criteria.	Washington Water Pollution Control Act - State Water Quality Standards for Surface Water (RCW 90.48) WAC 173-201A-130	Narrative and quantitative limitations for surface water protection. <ul style="list-style-type: none"> <li>Removal action plans will define measures to be taken to comply with surface water standards during removal action implementation.</li> </ul>

ARAR – applicable or relevant and appropriate requirement

CWA – Clean Water Act

MTCA – Model Toxics Control Act

SMS – Washington State Sediment Management Standards

WAC – Washington Administrative Code

**Table G-2. Other requirements to be considered—treatment and disposal**

Activity	Requirement	Citation	Comments and Substantive Requirements
In-Water Sediment Disposal or Capping	Army Corps of Engineers Permitting requirements	Sections 401 and 404 of the Clean Water Act (40 CFR 230; & 33 CFR 320, 323, 325 and 328)	Permitting requirements for discharges into waters of the United States.
		Section 10 of the Rivers & Harbors Act (33 CFR 320 & 322)	Permitting requirements for dredging or disposal in navigable waters of the United States. Project implementation will include Army Corps of Engineers permitting.
	State HPA permitting	Washington Hydraulics Code (WAC 220-110)	Permitting for work that would use, divert, obstruct or change the natural flow or bed of any salt or fresh waters.  <ul style="list-style-type: none"> <li>• Project implementation and permitting will include coordination with Washington Department of Fish And Wildlife staff. This coordination will address all substantive requirements of the HPA permitting process including evaluation of potential mitigation requirements and definition of work procedures and timing.</li> <li>• Dredging, capping and other in-water work activities will be performed at appropriate times of the year to comply with fisheries protection requirements.</li> </ul>
	PSDDA Characterization and Permitting Procedures	Dredged Material Management Program Guidelines (RCW 79.90; WAC 332-30)	Characterization and permitting process for sediments destined for unconfined open-water disposal (not anticipated under the removal action alternatives).  <ul style="list-style-type: none"> <li>• Selected sediments from the site may be characterized and authorized for PSDDA disposal and/or beneficial reuse.</li> <li>• Project implementation will follow PSDDA procedures including obtaining DNR use authorization for sediment disposal at the PSDDA site.</li> <li>• Additional sediment re-characterization may be required to comply with PSDDA standards depending on dates of sediment dredging and disposal.</li> </ul>
	Multi-User Disposal Site Operating Agreements	Typically the use of multi-user disposal sites is governed by site-specific permits and/or agreements.	Use of a multi-user disposal site for sediment disposal is not anticipated as part of the NTCRA.

**Table G-2. Other requirements to be considered—treatment and disposal (continued)**

Activity	Requirement	Citation	Comments and Substantive Requirements
In-Water Sediment Disposal or Capping	Rules for management of state-owned aquatic lands	State Aquatic Lands Management Laws (RCW 79.90 through 79.96; WAC 332-30) State Constitution (Articles XV, XVII, XXVII) Public Trust Doctrine	Sediment disposal, if performed on state-owned aquatic lands, must not be in conflict with state regulations. <ul style="list-style-type: none"> <li>Project implementation for PSDDA sediment disposal will follow PSDDA procedures including obtaining DNR use authorization for sediment disposal at the PSDDA site.</li> <li>If beneficial reuse of sediment is performed on state-owned lands, a sediment use authorization will be obtained.</li> <li>Sediment capping on state-owned lands, if performed as part of the remedy, will consider rules for management of state-owned aquatic lands.</li> </ul>
Upland Disposal of Excavated Soil and Dredged Sediments	Management of PCB or PCB-contaminated wastes	Toxic Substances Control Act (40 CFR 761)	Treatment or disposal of all soil and sediment with total PCB concentrations greater than 50 mg/kg dw will need to be managed in accordance with TSCA regulated methods (e.g. TSCA-approved landfill).
	State criteria for dangerous waste (which are broader than federal hazardous waste criteria)	Washington Dangerous Waste Regulations (WAC 173-303) Designation procedures (Section -070)	State and federal laws prohibit land disposal of certain hazardous or dangerous wastes. <ul style="list-style-type: none"> <li>Soil and sediment managed by upland disposal will comply with disposal site criteria.</li> <li>The need for additional waste profiling will be addressed as part of the engineering design for the project.</li> </ul>
	Requirements for solid waste management.	Solid Waste Disposal Act (42 USC Sec. 325103259, 6901-6991), as administered under 40 CFR 257, 258; WAC 173-304, Minimum Functional Standards for Solid Waste Handling. WAC 173-350. Solid Waste Handling Standards.	Applicable to non-hazardous waste generated during remedial activities and disposed off site unless wastes meet recycling exemptions. <ul style="list-style-type: none"> <li>Soil and sediment managed by upland disposal will comply with disposal site criteria. NTCRA alternatives are based on existing permitted facilities that are compliant with these regulations and are permitted to accept impacted materials.</li> <li>Upland beneficial reuse of sediments which would be regulated under WAC 173-350 is not contemplated under any of the removal action alternatives evaluated in the NTCRA.</li> </ul>
Air Emissions	State implementation of ambient air quality standards. NWAPA ambient and emission standards. Regional Emission Standards for Toxic Air Pollutants. Source of toxic air contaminant requires a notice of construction	Washington State Clean Air Act (70.94 RCW) General Requirements for Air Pollution Sources (WAC 173-400) PSAPCA Regulation III	Potentially applicable to alternatives involving sediment treatment or upland handling. <ul style="list-style-type: none"> <li>On-site treatment of dredged materials using methods that may require an air pollution control permit is not contemplated in the removal action alternatives.</li> <li>Off-site sediment handling and/or treatment/disposal facilities that would be contemplated for use under the removal action alternatives would need to comply with applicable air regulations and maintain appropriate permits.</li> </ul>

**Table G-2. Other requirements to be considered—treatment and disposal (continued)**

Activity	Requirement	Citation	Comments and Substantive Requirements
	Regional Emission Standards - BACT to control dust	PSAPCA Regulation I	To be considered – substantive requirements would be addressed.
	Puget Sound Clean Air Agency Regulations controlling dust emissions	PSCAA Section 9.15 of Regulation I	To be considered – substantive requirements would be addressed.
Wastewater	Permitting & treatment requirements for direct discharges into surface water.	National Pollutant Discharge Elimination System (NPDES) (40 CFR 122, 125) State Discharge Permit Program; NPDES Program (WAC 173-216, -220)	Anticipated to be relevant only if collected waters are discharged to on-site water body. Discharges must comply with substantive requirements of the NPDES permit. Applicable for off-site discharges. <ul style="list-style-type: none"> <li>Construction stormwater requirements will be satisfied for upland handling of soil and sediment, including development of a Storm Water Pollution Prevention Plan and implementation of best management practices.</li> <li>NPDES program requirements will be reviewed as part of project final design.</li> </ul>
	Permitting & pre-treatment requirements for discharges to a POTW	National Pretreatment Standards (40 CFR 403); City of Seattle Wastewater treatment requirements (Metro District Wastewater Discharge Ordinance)	Discharges to POTWs are considered off-site activities; pretreatment and permitting requirements would be applicable. <ul style="list-style-type: none"> <li>If alternatives include water pretreatment and POTW discharge, such work would be subject to POTW permitting and pre-treatment standards. Project design and implementation must incorporate waste characterization, pretreatment and permitting.</li> <li>Permitting requirements will be reviewed as part of project final design.</li> </ul>

ARAR – applicable or relevant and appropriate requirement

CWA – Clean Water Act

MTCA – Model Toxics Control Act

NTCRA – non-time-critical removal action

PSDDA – Puget Sound Dredge Disposal analysis

SMS – Washington State Sediment Management Standards

WAC – Washington Administrative Code

**Table G-3. Other requirements to be considered—project permitting and implementation**

Location/Activity	Requirement/Prerequisite	Citation	Comments and Substantive Requirements
Evaluation of environmental impacts	Evaluation of project environmental impacts and definition of appropriate measures for impact mitigation	State Environmental Policy Act (SEPA; WAC 197-11), National Environmental Policy Act (42 WSC 4321 et seq.)	SEPA/NEPA checklist will be prepared in conjunction with design and permitting to evaluate SEPA/NEPA substantive requirements.
Construction Activities within 200 Feet of Shoreline	Construction near shorelines of statewide significance, including marine waters and wetlands.	Shoreline Management Act (WAC 173-14), Coastal Zone Management Act (16 USC 1451 et seq.)	Potentially applicable if construction is performed in upland areas not directly related to the removal action.
Construction in State Waters	Requirements for construction and development projects for the protection of fish and shellfish in state waters.	Construction in State Waters, Hydraulic Code Rules (RCW 75.20; WAC 220-1101),	Substantive requirements would be considered and addressed as appropriate. <ul style="list-style-type: none"> <li>• Project implementation and permitting will include coordination with Washington Department of Fish And Wildlife staff. This coordination will address all substantive requirements of the HPA permitting process including information submittals and evaluation of potential mitigation requirements and definition of work procedures and timing.</li> <li>• Dredging, capping and other in-water work activities will be performed at appropriate times of the year to comply with fisheries protection requirements.</li> </ul>
		Rivers and Harbors Appropriation Act (33 USC 401, 40 CFR 230, 33 CFR 320, 322, 323, 325)	Army Corps 404 permit or Nationwide permit requirements will be evaluated.
Activities within/ Adjacent to Wetlands	Actions must be performed so as to minimize the destruction, loss, or degradation of wetlands as defined by Executive Order 11990 Section 7. Requirement for no net loss of remaining wetlands.	Executive Order 11990, Protection of Wetlands (40 CFR 6, Appendix A) EPA Wetland Actions Plan. (January 1989, OWWP)	Removal action alternatives will not result in net loss of any wetland areas.

**Table G-3. Other requirements to be considered—project permitting and implementation (continued)**

Location/Activity	Requirement/Prerequisite	Citation	Comments and Substantive Requirements
Endangered & Threatened Species	Actions must be performed so as to conserve endangered or threatened species, including consultation with the Department of the Interior.	Endangered Species Act of 1973 (16 USC 1531 et seq.) (50 CFR Part 200) (50 CFR Part 402)	Chinook salmon listed as threatened species. Federal agencies must confer with NOAA Fisheries on any action that may impact listed species. <ul style="list-style-type: none"> <li>Project permitting will include compliance with ESA requirements, as necessary, including consultation with state and federal permitting agencies and incorporation of appropriate measures to avoid adverse impacts to endangered or threatened species.</li> </ul>
Habitat Impacts and Mitigation	Policies and procedures have been established by state and federal agencies to evaluate and mitigate habitat impacts	Memorandum of Agreement between EPA and U.S. Army Corps of Engineers (Mitigation under CWA Section 404(b)(1), U.S. Fish & Wildlife Mitigation Policy (46 FR 7644), Fish and Wildlife Coordination Act (16 USC 661 et seq.), Washington Department of Fisheries Habitat Management Policy (POL-410), Compensatory Mitigation Policy for Aquatic Resources (Chapters 75.20 and 90.48 RCW)	Mitigation requirements for projects are defined in project permitting and vary with the type of work conducted. The removal actions should not result in any net loss of sensitive or critical habitats. The need for significant mitigation over-and-above that already included in the NTCRA is considered unlikely. <ul style="list-style-type: none"> <li>Project final design will include evaluation of project impacts and definition of any mitigation required or appropriate to the work being performed.</li> </ul>
Health and Safety	Development of a health and safety plan with appropriate controls, worker certifications and monitoring	WISHA (WAC 296-62) OSHA (29 CFR 1910.120)	Relevant requirement for environmental remediation operations. <ul style="list-style-type: none"> <li>All work activities performed at the site will comply with OSHA/WISHA requirements.</li> <li>Project final design will include definition of contractor safety requirements, including preparation and compliance with a project Health and Safety Plan, worker training and record-keeping requirements, and other applicable measures.</li> </ul>
Noise Control	Maximum noise levels	Noise Control Act of 1974 (RCW 70.107;WAC 173-60)	Potentially relevant depending on removal activities and equipment selected

**Table G-3. Other requirements to be considered—project permitting and implementation (continued)**

Location/Activity	Requirement/Prerequisite	Citation	Comments and Substantive Requirements
		Seattle Municipal Code (SMC Title 22.800)	<ul style="list-style-type: none"> <li>Construction activities will be limited to normal working hours, to the extent possible, to minimize noise impacts</li> </ul>
Within 100-year flood plain	RCRA hazardous waste facility designed, operated, maintained to avoid washout	40 CFR 257 40 CFR 264.18(b) 40 CFR 761.75	Not relevant. Site not located in floodplain
Grading Activities	Any upland grading activity that may need to be performed	Seattle Municipal Code (SMC; Title 22.804)	To be considered where grading activities are anticipated.
Stormwater	Ensure that permanent stormwater system meets current City codes	Seattle Municipal Code (SMC) 22.800  Directors' Rule: 2009-005 (SPU), 17-2009 (DPD) (City of Seattle 2009)	Applicable stormwater control regulations relating to stormwater, grading, and drainage control