APPENDIX D
REVIEW OF FEDERAL AND STATE LAWS, REGULATION, AND STANDARDS

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KING COUNTY SEDIMENT MANAGEMENT PLAN 2018 UPDATE

APPENDIX D: REVIEW OF FEDERAL AND STATE LAWS, REGULATION, AND STANDARDS

Prepared for

King County Department of Natural Resources and Parks Sediment Management Program

Sediment Management Plan Update Project

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LIST OF ACRONYMS AND ABBREVIATIONS

CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CSO	combined sewer overflow
CWA	Clean Water Act
DMMP	Dredged Material Management Program
DNR	Washington State Department of Natural Resources
EBDRP	Elliott Bay/Duwamish Restoration Program
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
HWIR-Media	Hazardous Waste Remediation Waste Management Requirement
mg/kg	milligrams per kilogram
MPRSA	Marine Protection Research, and Sanctuaries Act
MTCA	Model Toxics Control Act
NCP	National Contingency Plan
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Aeronautic Administration
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities Lists
PCB	polychlorinated biphenyl
POTW	publicly owned treatment works
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act
SMS	Sediment Management Standards
TMDL	Total Maximum Daily Load
TSCA	Toxic Substances Control Act
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USFWS	U.S. Fish and Wildlife Service
WAC	Washington Administrative Code
WDFW	Washington State Department of Fish & Wildlife

1 INTRODUCTION

Contaminated sediments are managed under a number of overlapping federal, state and local jurisdictions. Different sets of laws and regulations address various aspects of sediment contamination. For example, the control of sources contributing to sediment contamination is regulated by at least six provisions of the Revised Code of Washington (RCW). Two major source control regulations have been promulgated under the Clean Water Act to control discharges into national waterways: the National Pollutant Discharge Elimination System (33 USC 1342, 40 CFR) and the national Pretreatment Program. The National Pollution Discharge Elimination System was established to regulate point sources discharging directly into national waters, and the National Pretreatment Program was established to address sources discharging to publicly owned treatment works and indirectly into national waters. Separate effluent limitations and pretreatment standards have been developed through each program. The state of Washington is authorized to run the federal program and has its own statute and rules interpreting the federal program.

Similarly, the management of dredged contaminated sediments is regulated under a number of Clean Water Act provisions. Under section 404 of the Act, a permit is required for excavation activities, including sediment capping in waters that may affect navigation. Section 401 of the Act requires that all Federal permits and licenses, including those for the management of dredged materials allowing discharge of materials into national waters, be State certified to be in compliance with applicable state water quality standards. Dredged materials are also regulated under Section 10 of the Rivers and Harbors Act, which requires a permit for any dredging activity that may alter navigable waters. Section 103 of the Marine Protection, Research, and Sanctuaries Act regulates the transport of dredged material to the ocean for the purpose of disposal.

To help understand the laws and regulations applicable to the assessment and remediation of contaminated sediments at King County combined sewer overflow (CSO) sites, this document summarizes current statutes and rules guiding sediment management in the Puget Sound area. It is organized by general management activity:

- Sediment cleanup laws and regulations
- Natural resource management and protection

- Control of sources contributing to sediment contamination
- Disposal of materials removed during remediation
- Other regulations

Table D-1 summarizes these statutes and rules in a tabular format. On the following pages, within each management category, related statutes and regulations are denoted as follows:

Federal Law and Regulations

State Law and Regulations

Local or Regional Initiatives

2 SEDIMENT CLEANUP LAWS AND REGULATIONS

Comprehensive Environmental Response Compensation and Liability Act, Superfund Amendments and Reauthorization Act, and National Oil Hazardous Substances Pollution Contingency Plan
42 USC 9601 et seq., 40 CFR 300; 42 USC 9605 et seq., 40 CFR 300

Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. In addition, CERCLA established national policy for environmental investigations and cleanups and detailed procedures for identification and remediation of sites listed on the National Priorities List (NPL). CERCLA was amended on October 17, 1986 by the Superfund Amendments and Reauthorization Act. Under the auspices of CERCLA, the U.S. Environmental Protection Agency (EPA) oversees and directs site investigations and cleanups. This Applicable or Relevant and Appropriate Requirement is applicable to CSO that discharge in areas that have been established as Superfund sites.

Table D-1
Statutes and Rules for Sediment Management in Washington

Topic	Threshold	Regulatory Citation		Comment
		Federal	**State**	
Sediment Quality	Cleanup standards for multiple media	Comprehensive Environmental Response Compensation; National Contingency Plan (42 USC 9601 et seq., 40 CFR 300; 42 USC 9605 et seq., 40 CFR 300)	Model Toxics Control Act (MTCA) (Chap. 90.105D RCW; Chap. 173-340 WAC)	MTCA establishes cleanup standards and requirements for contaminated sites for all media; air, water, soil, and sediment.
	Sediment cleanup standards		Sediment Management Standards (SMS) (Chap. 90.105D RCW; Chap. 173-204 WAC)	The SMS are promulgated rules under MTCA for used for the establishment of sediment quality standards for freshwater, estuarine, and marine sediment environments.
Water Quality	Surface water quality standards	Clean Water Act (CWA) - Sections; 401 and 404 (33 USC 134 and 33 USC 1344) Clean Water Act (CWA) - Sections; 301, 302, 303, 304(a-b), 307, 402 (33 USC 1251-1376; Chap. 758; PL 845; 62 Stat. 1155).	Water Pollution Control Act (Chap. 90.48 RCW and 173-201A et al. WAC); Chap. 90.40 RCW and Chap 173-220, 173-216, 173-226 WAC	The CWA regulates the control of sources contributing to sediment contamination. Water Pollution Control Act sets water quality standards for state waters and regulates state water discharge permits.
Discharge to Surface Water	Point and non-point source standards	National Pollutant Discharge Elimination System (NPDES; 40 CFR 122, 125)	Discharge Permit Program (RCW 90.48; WAC 173-216, -222)	King County CSOs are regulated under NPDES permit for the West Point Treatment Plant (Permit No. WA-002918-1; renewal effective February 1, 2015) and the 2013 Consent Decree (Civil Action No. 2:13-cv-677) between the U.S. Department of Justice, EPA, Ecology, and King County.
Natural Resource Management and Protection	Permits	National Environmental Policy Act (42 USC, 4321 et seq., 40 CFR 1500 et al.)	State Environmental Policy Act (Chap. 43,231C RCW; Chap. 197-11 WAC)	NEPA/SEPA determine the environmental impacts of and identify regulatory needs for construction and remediation at CSO sites.
	Construction and development	Coastal Zone Management Act (16 USC 14511 et seq.)	State Shoreline Management Act of 1971 (RCW 90.58)	For construction within 200 feet of the shoreline. Both King County and the City of Seattle have developed Shoreline Master Programs.
	Endangered Species Protection	Endangered Species Act of 1973		Sediment remediation projects will need to consider fish windows and habitat restoration if the project could impact any endangered or threatened species.
	Preservation of historic areas	National Historic Preservation Act of 1966 Section 106 (16 USC 470 et. seq.)		Sediment remediation projects will need to comply with these requirements as well as King County's Land Mark Ordinance (King County Code 20.62)
	Protection of archaeological resources	Archaeological Resources Protection Act of 1970 (16 USC 470)	Archaeological Sites and Resources (Chapter 27.53 RCW)	Sediment remediation projects will need to comply with these requirements.
	Protection of Native American remains	Native American Graves and Repatriation Act of 1990 (Public Law 101-601; 104 Stat. 3048; USC 3001-13)	State Indian Graves and Records Act of 1989 (Chapter 27.44 RCW); State Antiquities Act, Archaeological Site Restoration (Chap. 27.44.040 RCW; Chap. 27.53.060 RCW)	Sediment remediation projects will need to comply with these requirements.
Disposal of Materials Removed During Remediation	Waste treatment, storage, and disposal	Resource Conservation and Recovery Act (RCRA) (42 USC 6901 et seq.); Toxic Substances Control Act (TCSA) (15 USC 2605; 40 CFR Part 761)	Dangerous Waste Regulations; Solid Waste Management Reduction and Recycling (RCW 70.105; WAC 173-303; RCW 70.95; WAC 173-304).Solid Waste Management Reduction and Recycling Chapter 70.95 RCW and 173-35004 WAC	No sediments found to date that exceed RCRA or TSCA levels
	Dredge/ fill and other in water construction work	Marine Protection, Research, and Sanctuaries Act (33 USC 1401-1414, 40 CFR 248); Section 10 (16 USC 401 and 403); CWA Section 404.	Dredge Material Management Program (RCW 79.90; WAC 332-30-166; hydraulic code rules: RCW 75.20 and WAC 220-110); State Aquatic Lands Management (Chap. 79.90 RCW and 332-30 WAC)	Govern discharges of waste into oceans and other water bodies. Set up standards for regulating open water disposal sites. A Section 10 permit is required if sediments are placed in a near-shore or offshore confined aqueous site navigable waters of the United States.

Notes:
ARAR – Applicable or relevant and appropriate requirement
CFR – Code of Federal Regulations
EPA – U.S. Environmental Protection Agency
KCC – King County Code
RCW – Revised Code of Washington
USC – United States Code
WAC – Washington Administrative Code

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The National Oil and Hazardous Substances Pollution Contingency Plan, more commonly called the National Contingency Plan or NCP, is the federal government's blueprint for responding to both oil spills and hazardous substance releases. It is the primary guidance document for CERCLA response actions. It was originally promulgated as part of the Clean Water Act of 1972, designed to address the removal of oil and other hazardous substances. As required by the Clean Water Act of 1972, the NCP was revised the following year to include a framework for responding to hazardous substance spills as well as oil discharges. Following the passage of CERCLA in 1980, the NCP was broadened to cover releases at hazardous waste sites requiring emergency removal actions. Over the years, additional revisions have been made to the NCP to keep pace with the enactment of legislation. The latest revisions to the NCP were finalized in 1994 to reflect the oil spill provisions of the Oil Pollution Act of 1990.

Provisions of CERCLA and the NCP are interconnected. As they relate to contaminated sediments, CERCLA provides authority to the federal government to remove or mitigate a site in case of a release or threat of a release of hazardous substances or pollutants into the environment that might affect the public health or welfare. Language in the statute includes the removal of pollutants from any contaminated natural resource. The NCP (42 USC 9605 (d)) allows affected parties to petition the federal government to perform an initial assessment of a release or potential release, by any person who may be affected by a release or threatened release. 42 USC 9605(e) and 40 CFR 300.415(b) and (c) authorizes the federal government to initiate actions to mitigate or remove the release of hazardous substances. Of importance to sediment remediation is that which authorizes the federal government to initiate hazardous substance removals in the event of a release that might impact human or animal populations, contamination of drinking water or sensitive areas.

Model Toxics Control Act
Chapter 90.105D RCW and Chapter 173-340 WAC

The Model Toxics Control Act (MTCA) is the Washington State law paralleling CERCLA. It identifies potential areas for cleanup and defines the methods for investigating sites, site cleanup standards, and site goals. Ecology is responsible for administering the standards, updating them on a regular basis, and listing the sites that contain hazardous materials that pose a potential threat to human health and the environment. This act provides legal

authority to establish criteria set forth in the Sediment Management Standards (a subsequent applicable regulation).

MTCA establishes cleanup standards and requirements for the cleanup of sites contaminated with hazardous substances. The regulation applies to all media: air, water, soil and sediment. MTCA has a reporting requirement for the release or potential release of hazardous substances that may threaten human health or the environment, and requires investigation by Ecology within 90 days of a report. If an initial investigation confirms contamination is present, and cleanup necessary, the property is entered on Ecology's Facility/Site Database. All confirmed sites are ranked and placed on the State Hazardous Sites List. MTCA establishes strict liability for cleanup.

Sediment Management Standards
90.105D RCW, and 173-204 WAC

The Sediment Management Standards (SMS) are developed and enforced by Ecology under the provisions in the Water Pollution Control Act (90.48 RCW) and MTCA. Adopted in 1991, the Sediment Management Standards were approved by EPA as part of the water quality standards of the state of Washington pursuant to Section 303 of the Clean Water Act. The SMS, updated in 2013, define procedures for establishing sediment quality standards for freshwater, estuarine, and marine sediments in the State of Washington, the methods for developing and selecting cleanup alternatives, and complying with cleanup requirements. Ecology's Sediment Cleanup Users Manual II (Ecology 2015) provides guidance for applying the SMS.

3 NATURAL RESOURCE MANAGEMENT AND PROTECTION

National Environmental Policy Act
42 USC, 4321 et seq., 40 CFR 1500 et al.

The National Environmental Policy Act (NEPA) establishes and sets forth the national policy for environmental protection and preservation. The Council on Environmental Quality (CEQ) provides executive guidance on federal responsibility, implementation and specific requirements for documentation. Federal agencies must comply with NEPA pursuant to CEQ policies (40 CFR Parts 1500).

NEPA is applicable to construction and cleanup at CSO sites that will be remediated as part of the Sediment Management Plan. For construction and cleanup each site, King County will prepare environmental documentation for review by the U.S. Army Corps of Engineers (USACE).

State Environmental Policy Act
Chapter 43,231C RCW and Chapter 197-11 WAC

The State Environmental Policy Act (SEPA) establishes the State's environmental policy for protection and preservation of the environment. The lead agency for each remediation project under the Sediment Management Plan may adopt any environmental analysis prepared under NEPA by following WAC 197-11-600 and 197-11-630. Approval through the NEPA/SEPA process is necessary prior to the issuance of the permits needed for construction and remediation of sites included in the Sediment Management Plan.

Coastal Zone Management Act
16 USC 14511 et seq.

The Coastal Zone Management Act of 1972 establishes a national policy to preserve, protect, develop, and where possible, restore or enhance the resources of the nation's coastal zone. This statue establishes a framework for states to develop and implement state shoreline management programs. The state in turn has the authority to delegate this responsibility to local governments. When a state has its shoreline master program approved by the federal government, the state program supersedes the requirements of the Coastal Zone Management Act.

State Shoreline Management Act of 1971
Chapter 90.58 RCW

Chapter 90.58 RCW defines the State Shoreline Management Act. This act requires the proponent of any substantial development within 200 feet of the high water mark of the shoreline obtain multiple permits if the proposed development or action interferes with the normal use of the shoreline. Permits are granted by the local jurisdiction. In this case, the Seattle Department of Construction and Inspections would issue the substantial development permit, with copies being sent to the State's Attorney General and to Ecology for review. State concerns regarding permit issuance are presented to the shoreline hearings board.

Depending on the nature of the program and special circumstances, two additional permits may be issued, a variance permit and a conditional use permit.

King County Shoreline Master Program
173-26-080 WAC and Title 25 King County Code

As required by 173-26-080 WAC and Title 25 King County Code, King County is to develop and implement a Shoreline Master Program, which regulates shoreline development to ensure compliance with the goals of environmental protection, maximum beneficial land use, view protection, water use and access. Included in this program are approvals for dredging and capping activities.

City of Seattle Shoreline Master Program of 1997
173-14 WAC

The City of Seattle also has a Shoreline Master Program, which provides the regulations to implement the State Shoreline Management Act. The Seattle Department of Construction and Inspections issues substantial development permits, variance permits and conditional use permits. The Shoreline Master Program governs the standards for dredging and material placement along the shoreline.

Endangered Species Act of 1973
16 USC 1531

The purpose of the Endangered Species Act is to provide a means to conserve whereby ecosystems upon which endangered and threatened species and to provide a program for the conservation of such endangered and threatened species. Federal agencies are required to ensure that their actions and the actions of state and local jurisdictions are not likely to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of critical habitat of endangered or threatened species. Sediment remediation projects will need to consider fish windows and habitat restoration if the project could impact any endangered or threatened species and will need to coordinate with the National Marine Fisheries Service and USFWS to protect listed species.

National Historic Preservation Act of 1966, Section 106
16 USC 470 et. seq.

The National Historic Preservation Act provides for the preservation of potential historic, architectural, archaeological, or cultural resources and requires federal agencies to consider the effects of their undertakings on historic properties. All federal lands, lessees, projects using federal funds, actions on federal lands, or projects permitted by federal agencies are under jurisdiction of this act. The implementing agency is the federal agency undertaking the action, providing funds or managing owned lands. Historic properties could be present in areas of sediment remediation.

King County Protection and Preservation of Landmarks, Landmark Sites and Districts
Chapter 20.62 King County Code

The King County Code provides for the preservation of potential historic, architectural, archaeological, or cultural resources. Historic properties could be present in areas of sediment remediation, triggering a review process at the County.

Archaeological Resources Protection Act of 1970
16 USC 470

The Archaeological Resources Protection Act provides protection for cultural resources on federal and Indian lands and provides restriction for trafficking in artifacts obtained illegally. All federal agencies, Indian lands and lessees are under the jurisdiction of this act. Cultural resources could be encountered during sediment remediation.

State Archaeological Sites and Resources Code
Chapter 27.53

The State Archaeological Sites and Resources Code protects archaeological resources in Washington State. It also establishes a permit system administered by the Department of Archaeology and Historic Preservation to ensure that archaeological resources and objects are not removed or altered.

Native American Graves and Repatriation Act of 1990
Public Law 101-601; 104 Stat. 3048; USC 3001-13

The Native American Graves and Repatriation Act requires federal agencies and museums receiving federal funds to inventory human remains and associate funerary objects. It also provides procedures for the repatriation of Native American remains and associated funerary objects. All federal agencies and lessees and all museums receiving federal monies are under the jurisdiction of this act. The implementing agent is the federal agency or museum in possession or control of remains. Remains could be encountered during sediment cleanup.

State Indian Graves and Records Act of 1989
Chapter 27.44.040 RCW

The State Indian Graves and Records Act protects prehistoric Indian graves, cairns, petroglyphs, and pictographs on all lands. It also establishes a permit system administered by the Department of Archaeology and Historic Preservation for the scientific excavation/investigation of graves, petroglyphs and pictographs. In addition, the act provides for reburial of the remains, requires notification of concerned Indian tribes, and establishes penalties for digging without a permit.

State Antiquities Act, Archaeological Site and Restoration
Chapter 27.53.060 RCW

The State Antiquities Act, Archaeological Site and Restoration establishes a permit system administered by the Department of Archaeological and Historic Preservation for the scientific excavation of archaeological sites on public and private lands. It also establishes penalties for digging without a permit.

4 CONTROLS OF SOURCES CONTRIBUTING TO SEDIMENT CONTAMINATION

Federal Water Pollution Control Act of 1948 (Clean Water Act)
33 USC 1251-1376; Chapter 758; PL 845; 62 Stat. 1155)

There are several provisions under the Clean Water Act (CWA) regulating the control of sources contributing to sediment contamination. They include the following:

- Section 304 (a), which establishes authority to develop and publish water quality criteria

- Sections 301, 302, 304(b), and 307, which establish authority to develop and publish effluent limitations
- Section 307, which establishes toxic pollutant and pretreatment effluent standards and authorizes the pretreatment program
- Section 402, which authorizes the National Pollutant Discharge Elimination System (NPDES) permitting program to regulate the discharge of pollutants from point sources into navigable waters
- Section 303 Total Maximum Daily Loads (TMDLs)

Section 304(a)
33 USC 1313

The CWA requires the establishment of guidelines and standards to control the direct or indirect discharge of pollutants to waters of the United States. Section 304(a) of the CWA requires EPA publish Water Quality Criteria, which are developed for the protection of human health and aquatic life. These water quality criteria are promulgated in 40 CFR 131, also referred to as the National Toxics Rule. Water Quality Criteria are used by the states to set water quality standards for surface water.

Sections 301, 302, 304(b) & 307
33 USC 1311

Section 301 of the CWA grants authority to EPA to establish effluent limitations for point sources that discharge toxic pollutants (other than to publicly owned treatment works). (Section 301(h) however, includes provisions for publicly owned treatment works (POTW) discharges.) It allows EPA to add or delete substances from the list of toxic pollutants and allows for modifications of effluent limitations under certain circumstances. Section 302 (33 USC 1312) allows the establishments of water quality based point source effluent limitations. Section 304(b) (33 USC 1314) requires the EPA to publish effluent limitation regulations. Effluent limitations developed for the regulated pollutants are applied to point source discharges on a case-by-case basis. Section 307 authorizes the EPA to publish a list of toxic pollutants subject to effluent limitations and allows for the revision of the list. It also grants EPA the authority to develop effluent standards (or prohibitions) for source category or categories for pollutants subject to effluent limitations.

Section 402
33 USC 1342, 40 CFR 405 et al.
40 CFR 122, the NPDES Program

Section 402 of the CWA, establishes requirements for point-source discharge permits for pollutant discharges into navigable waters of the U.S. In general, point-source discharges must be conditioned not to exceed the effluent limitation set forth in the statute. Section 402 also requires the EPA to review and grant permits for any discharge of designated pollutants, which include 126 priority toxic, and various conventional and non-conventional pollutants. Through the NPDES Program, EPA regulates the direct discharge of pollutants to surface waters by requiring the adherence to relevant effluent standards and technology-based pollutant controls as well as ambient water quality standards. NPDES permits are implemented through regulations codified in 40 CFR 122. Effluent limitations and standards for toxic pollutant effluents are codified in 40 CFR 129 and on an industry-specific basis in the 400 series of 40 CFR.

Wastewater dischargers are required to have a permit establishing pollution limits, and specifying monitoring and reporting requirements. King County manages a total of 39 CSOs; collectively, these CSOs are regulated under the National Pollutant Discharge Elimination System (NPDES) permit for the West Point Treatment Plant (Permit No. WA-002918-1; renewal effective February 1, 2015) and the 2013 Consent Decree (Civil Action No. 2:13-cv-677) between the U.S. Department of Justice, EPA, Ecology, and King County.

Section 307
33 USC 1317, 40 CFR 403

The CWA also regulates indirect discharges of wastewater to POTWs through performance and technology based pretreatment standards. In Washington, discharges to POTWs are regulated by Ecology (RCW 35.58). Ecology has delegated this authority to local governments in WAC 173-208. In King County, any releases to a sanitary sewer requires approval or a permit from the King County Industrial Waste Program (King County Ordinance No. 11035 as amended by Ordinance No. 11963, September 18, 1995).

Water Pollution Control Act
Chapter 90.48 RCW and 173-201A et al. WAC

Parallel to the federal Clean Water Act, the State Water Pollution Control Act regulates various source control activities related to sediment management. They include:

- Water Quality Standards for the Surface Waters of the State of Washington
- State Waste Discharge Permits
- Pretreatment Program

Washington State has an antidegradation policy for surface water quality under Chapter 90.48 RCW. Under the authority of Chapter 90.48 and the Clean Water Act, Ecology evaluates water bodies to identify water quality issues and determines municipal and industrial wastewater discharge compliance with the state water quality standards for surface water defined in WAC 173-201A. In addition, Ecology has adopted federal effluent limitations and standards, promulgated under the CWA (173-226-070 WAC) and has established discharge standards in 173-221 and 173-221A WAC. WAC-173-221 and 221A describe the effluent limitations and discharge standards for domestic wastewater facilities and upland fin-fish facilities, respectively. The breadth of discharge limitations does not exist in these state regulations but rather in Ecology's delegated NPDES authority, use of the federal effluent limitations and standards described in the 40 CFR 400 series, and by use of Ecology's "all known available and reasonable" requirements established in 90.48 and related Washington codes.

Chapter 90.40 RCW and Chapter 173-220, 173-216, 173-226 WAC

NPDES permits are required for point source discharges directly into state waters. State discharge permits are required for indirect discharges of wastes into sewage systems or groundwater. They are also granted to local pretreatment programs.

By enacting the Water Pollution Control Act (90.58 RCW) and associated regulations (173-220 WAC), the State of Washington meets federal requirements to issue NPDES permits. In addition, Ecology has the authority under 90.58 to issue state waste discharge permits (173-216 and 173-226 WAC). Local authorities can apply for delegation of Chapter 173-216 authority allowed under WAC 173-216-150.

Any waters generated from dewatering of excavated sediments that are discharged directly to Elliott Bay or the Duwamish River are subject to NPDES permitting through the State of Washington and EPA. However, water from such activity released to a sanitary sewer would not require an NPDES permit, but rather, approval from the King County Industrial Waste Program. (As a condition of NPDES permit issuance in Washington State, wastewater discharges are subject to sediment source control standards under WAC 173-204-400 through WAC 173-204-420.)

Washington also has an antidegradation policy for groundwater quality under Chapter 90.48. Generally, all beneficial uses of groundwater are to be maintained and protected, and existing groundwater quality is to be protected against degradation of groundwater quality standards and codified in Chapter 173-200 WAC.

5 DISPOSAL OF MATERIALS REMOVED DURING REMEDIATION

Resource Conservation and Recovery Act
42 USC 6901 et seq. And 40 CFR 260, et al.

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to regulate the management of hazardous wastes; to ensure safe treatment, storage, and disposal of wastes; and to provide resource recovery from the environment by controlling hazardous wastes from "cradle to grave." Several provisions of RCRA Subtitle C (Hazardous Waste Management) currently apply to the management of contaminated sediments. They include: Section 3001 942 USC 6921)(a) and (b), which require the development of regulatory criteria for the identification and listing of hazardous wastes. The listed hazardous wastes, component hazardous constituents, and hazardous waste characteristics are codified in 40 CFR 261. Sediments are screened to determine if they are hazardous or not based on these criteria. Section 3002 942 USC 6922) establishes labeling, reporting and record keeping criteria that are applicable to sediments found to be hazardous (40 CFR 262).

Section 3004 (42 USC 6924) subsections (c), (d), (e), and (g) establish performance standards for owners and operators of hazardous waste treatment, storage and disposal facilities. Subsection c, prohibits the disposal of liquids in landfills or materials that release liquids

when compressed. Subsections d, e and g set prohibitions on land disposal of hazardous wastes and require treatment of waste prior to placement in land disposal facilities. Land disposal restrictions are codified in 40 CFR 268, which describes treatment specifics and performance criteria for RCRA waste types. Prior to land disposal, "RCRA sediments" would need to comply with the performance criteria associated with their waste category. Section 3004 (o) provides minimum technological requirements for RCRA land disposal facilities. The design of a land disposal facility for "RCRA sediments" would need to comply with these provisions. Section 3005, 42 USC 6925 requires permits for treatment, storage or disposal of hazardous waste and establishes requirements for permit applications. Regulations are found in 40 CFR 270.

Non-hazardous solid waste, codified in 40 CFR 261, is regulated under RCRA Subtitle D (Non-hazardous Waste Management). States must follow the requirements for RCRA Subtitle D state permit programs defined in 40 CFR 239, but are otherwise allowed to manage Subtitle D disposal. Parts 255 and 256 of 40 CFR detail how solid waste management plans should be developed, and parts 257 and 258 outline the criteria for the classification of solid waste facilities and municipal solid waste facilities.

EPA Hazardous Waste Management Policies

Contained-In Policy

The contained in policy was first articulated in an EPA memorandum "RCRA Regulatory Status of Contaminated Groundwater" November 13, 1996. It has been updated many times in Federal Register preambles, EPA memos and correspondence. The contained in here applies only to environmental media and has not been codified.

The determination that any given volume of contaminated media does not contain hazardous waste is called a "contained-in determination." In the case of media that exhibit a characteristic of hazardous waste, the media are considered to "contain" hazardous waste as long as they exhibit a characteristic. Once the characteristic is removed, the media no longer contains the hazardous waste and the waste is no longer subject to land disposal restrictions. However, in the case of media that are contaminated by listed hazardous waste, even after the listed hazardous waste is determined to no longer contain a listed hazardous waste, RCRA land disposal restrictions will continue to apply if the contaminated media still contains

hazardous constituents at concentrations above land disposal restriction treatment standards. This may apply to the disposal of sediments that once contained listed hazardous wastes.

Hazardous Waste Management – Chapter 70.105 RCW
Dangerous Waste Regulations – Chapter 173-303 WAC

Washington State has been authorized by EPA to run the RCRA program. Chapter 70.105 RCW, Hazardous Waste Management Act, provides the authority for Ecology to administer the program. The regulations that implement the State's authority under RCRA are found in Washington Dangerous Waste Regulations 173-303 WAC. These rules parallel 40 CFR 260 et al. in a number of ways. They specify waste generator requirements for determining if waste is dangerous or hazardous and detail requirements for handling, treatment, manifesting, disposal, and storage of substances defined as dangerous or hazardous. If contaminated sediments are designed as dangerous wastes, they are subject to Chapter 70.105 and 173-303 WAC. If contaminated sediments are designated as solid or problem wastes, they are subject to the Solid Waste Management Laws.

Solid Waste Management Reduction and Recycling
Chapter 70.95 RCW and 173-350 WAC

The Solid Waste Management Laws (Chapter 70.95 RCW) define the State of Washington's policy on solid waste disposal and 173-350 WAC defines the regulations for solid waste disposal. The act sets a solid waste management hierarchy with reduction being the preferred management alternative and landfilling the last. A special class of "problem-waste" is designated with include dredged sediments unsuitable for open-water disposal, not dangerous waste or not subject to a Clean Water Act Section 404 permit.

Toxic Substances Control Act
15 USC 2601 et seq. 40 CFR 760, et al.

The Toxic Substances Control Act (TSCA) authorizes EPA to establish regulations pertaining to the control of chemical substances or mixtures that pose imminent hazards. 15 USC 2605 (e) provides the statutory authority for the promulgation of rules for the management and disposal of polychlorinated biphenyls (PCBs). EPA has published these rules in 40 CFR 760 et al. 40 CFR 761 Subpart D regulates the storage and disposal of PCBs including soils and sediments excavated from regulated units, which have PCB concentrations greater that 50

milligrams per kilogram (mg/kg) dry weight. PCB-contaminated materials at these concentrations must be incinerated or disposed of in a qualifying chemical waste landfill. PCB-contaminated liquids may alternatively be disposed of in a qualifying chemical waste landfill. PCB-contaminated liquids may alternatively be disposed in high efficiency boilers that meet specific criteria. PCB dredged material management is specified in 40 CFR 761.60 (a)(5).

Sediments removed from King County-managed sites with PCB concentrations greater than 50 mg/kg will have to be managed under TSCA regulations.

Federal Water Pollution Control Act (Clean Water Act – Section 401) State Certification of Projects Discharging into Navigable Waters 33 USC 134

Section 401 of the CWA requires the state to certify that any project that may result in any discharge into navigable waters, such as dredging, will comply with effluent limitations required under the statute. The water quality certification under Section 401 is granted (or denied) by Ecology. Chapter 173-201 WAC sets forth the details of the state water quality standards. A Section 401 certification is required for active cleanup of contaminated sites.

Federal Water Pollution Control Act (Clean Water Act – Section 404) Discharges of Dredged or Fill Material 33 USC 1344

Section 404 of the Clean Water Act (33 UCS 1344) governs discharges of dredged or fill material into waters of the United States, including all waters landward of the baseline of the territorial sea. EPA and USACE each administer specific aspects of Section 404. USACE has the primary responsibility for issuing permits, which are required for the discharge of dredged or fill material into waters of the United States at specified disposal sites designated in accordance with guidelines specified in Section 404 (b) and codified in 40 CFR 230. A Section 404 permit will be required to address dredged or backfill material placement. The permit would also address sediments that are removed from a site and disposed in an aquatic or nearshore environment.

River and Harbors Act of 1899 (Section 10) 16 USC 401 and 403

Section 10 of the Rivers and Harbors Act prohibits the unauthorized obstruction or alteration of any navigable waters of the United States. A Section 10 permit requires a recommendation

from the Chief of Engineers and is required for in-place or ex-situ capping, treatment, or subaqueous containment of sediments if the activity has the effect of altering the navigable waterway's course. A Section 10 Permit is also required if sediments are capped or placed in a near-shore or offshore confined aqueous site within navigable waters of the United States.

Marine Protection, Research, and Sanctuaries Act 33 USC 1401–1414, 40 CFR 248

The MPRSA governs all discharges of waste into oceans of the United States. It also regulates transportation of dredged material seaward of the baseline (in ocean waters) for the purpose of disposal. A permit for ocean dumping is required and issued by USACE. MPRSA also regulates the designation of sites for disposing of dredged materials. EPA is responsible for designating disposal sites, and is charged with developing ocean dumping criteria to be used in evaluating permit applications.

Dredge Material Management Program

Federal navigation channels, port terminal ship berths, and small boat harbors in Puget Sound must be dredged periodically to maintain the commercial and recreational services provided by these facilities. Much of the material removed during dredging is disposed in Puget Sound. Concerns about the appropriateness of disposing this material in Puget Sound, the selection of appropriate aquatic disposal sites and the lack of consistent dredged material evaluation procedures, led in part to the formation of the Dredged Material Management Program (DMMP) in 1985 to ensure that disposed dredge material does not cause human or environmental health problems in Washington. The DMMP includes representatives from the following agencies:

- USACE Seattle District (lead agency)
- EPA, Region 10
- Ecology
- DNR

DMMP provides the structure and system to manage publicly approved, environmentally acceptable open-water disposal sites in Puget Sound, Grays Harbor, and Willapa Bay and procedures for the sampling, testing, and evaluation of dredged material to ensure that material is acceptable for unconfined open-water disposal.

6 OTHER REGULATIONS

Federal Water Pollution Control Act (Clean Water Act) 33 USC 1254, 33 USC 1264

33 USC 1254 (Section 104 (n)(1) of the Clean Water Act) authorizes the study of the effects of pollution, including sedimentation, on sport and commercial fishing, on recreation, on water supply and power, and other beneficial uses.

33 USC 1265 (Section 115 of the Clean Water Act) directs the Administrator of EPA to identify the location of in-place toxic pollutants in harbors and navigable waterways.

Washington Hydraulic Code, Chapter 75.20 RCW and Chapter 220-110 WAC

The Washington Hydraulic Code and the accompanying regulations define the requirements pertaining to any activity that would use, obstruct, alter, or impact the seabed or the natural flow of marine or fresh waters. WDFW reviews any hydraulic project proposal. The Joint Aquatic Resource Permit Application is evaluated for the protection of fish and aquatic life and compliance with SEPA. If WDFW determines that the proposed project has any indirect or direct deleterious effect on fish, the project will be denied unless sufficient mitigation can be assured. WDFW approves a project by issuing a Hydraulic Project Approval. This regulation is applicable to all sediment remediation projects.

State Aquatic Lands Management, Chapter 79.90 RCW and 332-30 WAC

This act sets forth the State of Washington land use policy and is implemented through 332-30 WAC. DNR administers and authorizes the uses of state-owned land. The beds of navigable waters, harbors, and state-owned tidelands and shorelands are under the authority of DNR. DNR Aquatic Lands Division is empowered to review and authorize proposed use of state-owned aquatic lands. Use of state-owned aquatic lands, if approved, will entail a contract with DNR, with terms and limited conveyance of rights. Operating practices and performance standards for the lease of state-owned lands are defined in 332-30 WAC. Most contaminated sediments off CSO outfalls into Elliott Bay and parts of the Duwamish River are located on state-owned lands.

7 REFERENCES

Ecology (Washington State Department of Ecology), 2015. *Sediment Cleanup Users Manual II – Guidance for Implementing the Cleanup Provisions of the Sediment Management Standards*, Chapter 173-204 WAC. March 2015.