

GENERAL SITE INFORMATION, CHARACTERISTICS, AND STATUS

Project Name	<u>LOWER DUWAMISH WATERWAY</u>	ProjectID: 10-13
Last Updated:	07/21/04	
City:	Seattle	
County:	King	
State:	WA	
Country:	USA	
Bodies of Water:	Duwamish River; Lower Duwamish Waterway; Elliot Bay	
US EPA Region:	X	
Status (Active, Complete, or Monitoring Only):	Active	
Date On NPL:	2001	
ROD/ESD Date:	N/A	
Operable Unit:	N/A	
Areas of Concern (length or acres):	The lower 5-mile stretch of the Duwamish River, called the Lower Duwamish Waterway, is the designated Superfund site; the 5-mile stretch extends from the City of Tukwila to the southern tip of Harbor Island (Project ID 10-03).	
Other Characteristics of Water Body:	<p>The Duwamish River originates at the confluence of the Green and Black Rivers, then flows northeast for approximately 12 miles, divides at the southern end of Harbor Island (in Seattle) to form the East and West Waterways around Harbor Island, then discharges into Elliot Bay. The last five river miles are maintained by the Corps of Engineers as a federal navigation channel and are called the Lower Duwamish Waterway, which is the designated Superfund site. (The East and West Waterways around Harbor Island are operable units within the Harbor Island Superfund site; refer to Project ID 10-03).</p> <p>Navigation depths maintained by the Corps of Engineers are 15 feet from River Mile (RM) 5.0 to RM 3.0; 20 feet from RM 3.0 to RM 2.0; and 30 feet from RM 2.0 to RM 0.0 at the southern tip of Harbor Island. Average annual discharge from the river was, recently, 2,300 to 2,350 cfs.</p> <p>As described in the NPL Site Narrative: "The lower Duwamish River is fished for recreational, commercial, and subsistence purposes. Three salmon hatcheries within the Green-Duwamish River system release approximately 10 million juvenile salmon each year. The Duwamish River is part of the traditional fishing grounds for the Muckleshoot and Suquamish Indian tribes. The National Marine Fisheries Service has conducted numerous studies on the effects of contaminated sediments on biotic resources in the Duwamish River and elsewhere in Puget Sound. This research has shown that juvenile salmon from the Duwamish River exhibit reduced growth and immune system function relative to salmon from uncontaminated areas."</p>	
Contaminants of Concern:	arsenic, copper, lead, mercury, tributyltin, PAHs, PCBs	
Source of Contamination:	As described in the NPL Site Narrative: "The shorelines along the majority of the Duwamish Waterway have been developed for industrial and commercial operations. Much of the upland areas are heavily industrialized. In addition, this reach of the river is the receiving water body for discharges from over 100 storm drains, combined sewer overflows (CSOs), and other outfalls. Historical or current commercial and industrial operations include cargo handling and storage; marine construction; boat manufacturing; marina operations; paper and metals fabrication; food processing; and airplane parts manufacturing. Contaminants may have entered the river via several transport mechanisms, including spillage during product shipping and handling, direct disposal or discharge, contaminated groundwater discharge, surface water runoff, stormwater discharge, or contaminated soil erosion."	

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Contaminated Area
Physical Characteristics: As described in a 2003 Phase 1 RI report: "The shorelines along the majority of the Lower Duwamish Waterway have been developed for industrial and commercial operations, as the Waterway serves as a major shipping route for containerized and bulk cargo. Common shoreline features within the Waterway include constructed bulkheads, piers, wharves, buildings extending over the water, and steeply sloped banks armored with riprap or other fill materials. Intertidal habitats are dispersed in relatively small patches (i.e., generally less than one acre in size) with the exception of Kellogg Island, which represents the largest contiguous area of intertidal habitat remaining in the Duwamish River. Additional areas of low intertidal mudflats are present below upper bank riprap in the reaches upstream of the 1st Avenue Bridge (at RM 2.0)."

"To facilitate navigation and industrial development, the Lower Duwamish Waterway has been straightened and dredged in many areas by Commercial Waterway District No. 1 (Washington Statute RCW91.04). Dredging in 1903-1905 created the East and West Waterways, and dredged material from the river was used to create Harbor Island. The river has been dredged and channelized from just upstream of Turning Basin 3 (RM 5.0) to the southern tip of Harbor Island, since about 1916. Upstream of the Turning Basin, the river is contained by dikes."

"The average width of the Lower Duwamish Waterway is 440 ft., although it is wider downstream of the 1st Avenue Bridge (RM 2.0)."

Type of Regulatory Action: Superfund. Final

Overall Status Summary: Sediments in the Lower Duwamish Waterway are contaminated with arsenic, copper, lead, mercury, tributyltin, PAHs, and PCBs. The shorelines are heavily industrialized; in addition, the river is the receiving water body for discharges from over 100 storm drains, combined sewer overflows, and other outfalls. The site was added to the NPL in September 2001. The Duwamish River originates at the confluence of the Green and Black Rivers, then flows northeast for approximately 12 miles, dividing at the southern end of Harbor Island (in Seattle) to form the East and West Waterways around Harbor Island prior to discharging into Elliott Bay. The last five river miles are maintained by the Corps of Engineers as a federal navigation channel and are called the Lower Duwamish Waterway, which is the designated Superfund site.

In 2000, the Port of Seattle, King County, the City of Seattle, and the Boeing Company formed a public/private partnership, called the Lower Duwamish Waterway Group, to assess environmental conditions and evaluate cleanup options. But the partnership was unable to reach agreement with federal agencies on approach and damages, which led to the NPL listing. In December 2000, USEPA and Washington State Dept. of Ecology ("Ecology") signed an agreement with the Lower Duwamish Waterway Group calling for the group to investigate waterway contamination, assess risks, and evaluate cleanup alternatives.

As a result of its investigations, the Lower Duwamish Waterway Group prepared and issued three draft documents in January 2003, namely (a) a Phase 1 Remedial Investigation Report; (b) a technical memorandum prioritizing areas which are candidates for early cleanup actions; and (c) a technical memorandum identifying other studies that are required. The Phase 1 Remedial Investigation Report was approved and issued final in July 2003. The Phase 1 report represented the first phase of a two-phase approach and presented a data compilation and risk assessment based on what was already known from previous studies of environmental conditions in the Lower Duwamish Waterway.

Seven contaminated areas of the Lower Duwamish Waterway were proposed for early sediment cleanup and, in June 2003, four were selected for implementation by USEPA and Ecology. These were originally proposed in the aforementioned draft technical memorandum and, after

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agency and public comments were addressed, the memo was issued as a final report ("Identification of Candidate Sites for Early Action") in June 2003. The four areas selected for implementation are the following:

- Duwamish/Diagonal (at RM 0.5): In late 2003, cleanup was scheduled to begin for some of the contaminated sediments near the Duwamish combined sewer overflow and Diagonal Way storm drain. The sediments were to be dredged and disposed of at "an approved disposal site." Remaining contamination would be covered with clean sediments. The target area is seven acres. Sources and source control issues specific to this target area are also being evaluated.

About 70,000 cy is estimated for removal by dredging. In August 2003, it was proposed that these sediments be disposed in the Blair Ship 1 in the Port of Tacoma, which is constructed to contain contaminated sediments from the Hylebos Waterway (Commencement Bay, Project ID 10-01) but which is expected to have excess capacity. However, because of opposition and the resultant uncertainty in obtaining approval in time, it was decided to forego this option and, instead, transport the dredged material to a commercial landfill in rural central Washington.

- Boeing Plant 2 (at RM 3.0): This early action targets contaminated sediments along the shoreline of Boeing Plant 2. EPA and Boeing are discussing the boundaries for a sediment cleanup.

- Slip 4 (at RM 2.8): Some members of the Lower Duwamish Waterway Group will study this area and propose boundaries for an early cleanup. Slip 4 is located on the east side of the waterway, just north of Boeing Plant 2.

- Terminal 117 (Malarkey): The Port of Seattle, in coordination with the City of Seattle, will study this area and propose boundaries for an early cleanup. This area is located in the west side of the waterway, just south of the 16th Avenue South bridge. Currently owned by the Port of Seattle, the upland property was formerly owned by Malarkey Asphalt. The Port removed PCB-contaminated soil from the upland property in 1999 and 2000.

A fifth area, the Norfolk Combined Sewer Overflow (at RM 5.0), will receive follow-up remedial action. This site is on the east side of the Waterway. In 1999, King County dredged contaminated sediments from two acres next to the Norfolk combined sewer overflow and capped the dredged area with clean sand. Monitoring subsequently identified recontamination at one edge of the cap. Boeing has agreed to work with Ecology to clean up about 100 cubic yards of contaminated sediments to keep them from migrating onto the cap. EPA is evaluating who is responsible for the additional work needed in this area.

Dredging at the Duwamish/Diagonal started in mid-November 2003 and has been completed. A total of 66,000 cy was removed by mechanical dredging. Dredged material was transported by rail to Roosevelt Landfill in Washington State for disposal. Total cost was \$7.4 million, consisting of dredging (\$1.2 million), transport and disposal (\$3.4 million), and capping over the dredged area (\$2.8 million). Capping was required to restore the dredged area to its pre-dredging elevation. Public and agency complaints regarding "sloppy" dredging work and release of contaminants during dredging were prevalent (References D-540 and D-541).

Remedial Action Planned:

☐

Risk Assessment:

☐

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Remedial Action Implemented: ☐

Status of Dredging ☐

PRPs: ☒

Contacts: ☒

References: ☒

Modeling: ☐

Fishing Advisory: ☐

Key Conditions: capping, dredging, extended (>1 mile) river, navigational dredging component, rail transport for disposal, tidal fluctuations, wetlands

POTENTIALLY RESPONSIBLE PARTIES

Project Name **LOWER DUWAMISH WATERWAY**

ProjectID: 10-13

PRP Name: PRP INFORMATION NOT RELEASED

PRPID:

Street Address:

City:

State:

KEY CONTACTS

Project Name **LOWER DUWAMISH WATERWAY**

ProjectID: 10-13

Last Name: KEY CONTACT INFORMATION NOT RELEASED

Contact ID:

First Name:

Title:

Company:

Address:

City:

State:

Postal Code:

Work Phone # :

Other Phone #:

Fax # :

Email Address:

REFERENCES

Project Name LOWER DUWAMISH WATERWAY

ProjectID: 10-13

Reference Type: A

ReferenceID: 945

Title: *Administrative Order On Consent For Remedial Investigation/Feasibility Study*

Location: AEM

Category: Legal

Prepared by/Author: US EPA Region X; State of Washington Department of Ecology

**Preparer/Author
Address:**

Prepared For: Port of Seattle; King County; City of Seattle; The Boeing Company

Date Published: April 19, 2000

**Key Words and
Phrases:**

Reference Type: A

ReferenceID: 946

Title: *HRS (Hazard Ranking System) Documentation Record*

Location: AEM

Category: Miscellaneous

Prepared by/Author: Roy F. Weston, Inc.

**Preparer/Author
Address:**

Prepared For: Ecology and Environment, Inc, Seattle; US EPA, Seattle

Date Published: October 4, 2000

**Key Words and
Phrases:**

Reference Type: A

ReferenceID: 993

Title: *NPL Site Narrative for Lower Duwamish Waterway*

Location: AEM

Category: Site Update

Prepared by/Author: US EPA

**Preparer/Author
Address:**

Prepared For: Federal Register Notice

Date Published: September 13, 2001

**Key Words and
Phrases:**

REFERENCES

Project Name LOWER DUWAMISH WATERWAY

ProjectID: 10-13

Reference Type: A

ReferenceID: 994

Title: *Fact Sheet: Lower Duwamish Waterway Site, Seattle, Washington*

Location: AEM

Category: Site Update

Prepared by/Author: US EPA and Washington Dept. of Ecology

**Preparer/Author
Address:**

Prepared For: General Public

Date Published: January 2003

**Key Words and
Phrases:**

Reference Type: A

ReferenceID: 995

Title: *Fact Sheet: National Oceanic and Atmospheric Administration:
Damage Assessment and Restoration Program: Northwest
Region: Elliott Bay/Duwamish River Natural Resource Damage
Assessment and Restoration Planning*

Location: AEM

Category: Site Update

Prepared by/Author: National Oceanic and Atmospheric Administration

**Preparer/Author
Address:**

Prepared For: General Public

Date Published: March 19, 2003

**Key Words and
Phrases:**

Reference Type: A

ReferenceID: 996

Title: *Fact Sheet: Lower Duwamish Waterway Site, Seattle, Washington*

Location: AEM

Category: Site Update

Prepared by/Author: US EPA and Washington Dept. of Ecology

**Preparer/Author
Address:**

Prepared For: General Public

Date Published: June 2003

**Key Words and
Phrases:**

REFERENCES

Project Name LOWER DUWAMISH WATERWAY

ProjectID: 10-13

Reference Type: A **ReferenceID:** 997
Title: *Phase 1 Remedial Investigation Report: Final*
Location: AEM
Category: RI/FS
Prepared by/Author: Windward Environmental, LLC
Preparer/Author Address: 200 West Mercer Street, Suite 401
Seattle, WA 98119
Prepared For: US EPA Region X and Washington State Department of Ecology
Date Published: July 3, 2003
Key Words and Phrases:

Reference Type: A **ReferenceID:** 998
Title: *Fact Sheet: EPA Invites Public Comment on Proposal to Put Lower Duwamish Waterway Sediments into Commencement Bay Blair Slip 1*
Location: AEM
Category: Site Update
Prepared by/Author: US EPA Region X
Preparer/Author Address:
Prepared For: General Public
Date Published: August 2003
Key Words and Phrases:

Reference Type: A **ReferenceID:** 1024
Title: *Lower Duwamish Waterway Slip 4 Early Action Area: Summary of Existing Information and Identification of Data Gaps (Final)*
Location: AEM
Category: RI/FS
Prepared by/Author: Striplin Environmental Associates
Preparer/Author Address: 1205 West Bay Drive
Olympia, WA 98502
Prepared For: US EPA Region X
Date Published: January 15, 2004
Key Words and Phrases:

REFERENCES

Project Name LOWER DUWAMISH WATERWAY

ProjectID: 10-13

Reference Type: A

ReferenceID: 1076

Title: ***Memo re: CSTAG Recommendations on the Lower Duwamish Waterway Contaminated Sediment Superfund Site***

Location: AEM

Category: Contaminated Sediments: Overview of Issues

Prepared by/Author: Stephen J. Ells and John C. Meyer, Co-Chairs

Preparer/Author Address: Contaminated Sediments Technical Advisory Group (CSTAG)
US EPA
Washington, DC 20460

Prepared For: Allison Hiltner, Remedial Project Manager, Region 10

Date Published: December 2, 2003

Key Words and Phrases:

Reference Type: A

ReferenceID: 1077

Title: ***Memo re: Region 10 Response to CSTAG Recommendations on the Lower Duwamish Waterway Contaminated Sediment Superfund Site***

Location: AEM

Category: Contaminated Sediments: Overview of Issues

Prepared by/Author: Allison Hiltner, Remedial Project Manager, Region 10

Preparer/Author Address: US EPA Region X

Prepared For: Stephen J. Ells and John C. Meyer, Co-Chairs
Contaminated Sediments Technical Advisory Group (CSTAG)

Date Published: February 6, 2004

Key Words and Phrases:

Reference Type: B

ReferenceID: 918

Title: ***e-mail re: Lower Duwamish Diagonal***

Location: AEM

Category: Site Update

Prepared by/Author: Pat Romberg

Preparer/Author Address:

Prepared For: AEM, Inc.

Date Published: February 23, 2004

Key Words and Phrases:

REFERENCES

Project Name LOWER DUWAMISH WATERWAY

ProjectID: 10-13

Reference Type: B
Title: *Spotlight On: Elliott Bay/Duwamish River*
Location: AEM
Category: Site Update
Prepared by/Author: Susan Pastor
Preparer/Author Address: US EPA Region V
Prepared For: Fox River Current
Date Published: January/February 2003
Key Words and Phrases:

ReferenceID: 932

Reference Type: C
Title: *Lower Duwamish Waterway*
Location: AEM
Category: Site Update
Prepared by/Author:
Preparer/Author Address:
Prepared For: Superfund Week
Date Published: December 8, 2000
Key Words and Phrases:

ReferenceID: 629

Reference Type: C
Title: *Six-Mile Stretch of Seattle-Area River Likely to Be Listed under Superfund*
Location: AEM
Category: Site Update
Prepared by/Author:
Preparer/Author Address:
Prepared For: Superfund Week
Date Published: November 24, 2000
Key Words and Phrases:

ReferenceID: 630

REFERENCES

Project Name LOWER DUWAMISH WATERWAY

ProjectID: 10-13

Reference Type: C

ReferenceID: 654

Title: *Still Time to Vote Whether Wash. Waterway Gets NPL Designation*

Location: AEM

Category: Site Update

Prepared by/Author:

Preparer/Author

Address:

Prepared For: Hazardous Waste/Superfund Week

Date Published: February 19, 2001

**Key Words and
Phrases:**

Reference Type: C

ReferenceID: 750

Title: *Wash.: Boeing to Remediate Lands*

Location: AEM

Category: Site Update

Prepared by/Author:

Preparer/Author

Address:

Prepared For: Hazardous Waste/Superfund Week

Date Published: October 8, 2001

**Key Words and
Phrases:**

Reference Type: C

ReferenceID: 892

Title: *Wash.: PRPs Probe Sediments*

Location: AEM

Category: Site Update

Prepared by/Author:

Preparer/Author

Address:

Prepared For: Hazardous Waste/Superfund Week

Date Published: June 17, 2002

**Key Words and
Phrases:**

REFERENCES

Project Name LOWER DUWAMISH WATERWAY

ProjectID: 10-13

Reference Type: C

ReferenceID: 930

Title: *Dredging to start at Duwamish site*

Location: AEM

Category: Site Update

Prepared by/Author:

Preparer/Author

Address:

Prepared For: The Seattle (WA) Daily Journal of Commerce

Date Published: November 12, 2003

**Key Words and
Phrases:**

Reference Type: C

ReferenceID: 1006

Title: *Wash.: Site Begins Demolition*

Location: AEM

Category: Site Update

Prepared by/Author:

Preparer/Author

Address:

Prepared For: Hazardous Waste/Superfund Week

Date Published: January 13, 2003

**Key Words and
Phrases:**

Reference Type: C

ReferenceID: 1014

Title: *Wash.: Site Includes Public Comments*

Location: AEM

Category: Site Update

Prepared by/Author:

Preparer/Author

Address:

Prepared For: Hazardous Waste/Superfund Week

Date Published: January 27, 2003

**Key Words and
Phrases:**

REFERENCES

Project Name LOWER DUWAMISH WATERWAY

ProjectID: 10-13

Reference Type: D

ReferenceID: 462

Title: *Partnership forms to study lower Duwamish River*

Location: AEM

Category: Site Update

Prepared by/Author: The Port of Seattle

**Preparer/Author
Address:**

Prepared For: News Release

Date Published: April 19, 2000

**Key Words and
Phrases:**

Reference Type: D

ReferenceID: 463

Title: *Six-Mile Stretch of River Likely to be Listed*

Location: AEM

Category: Site Update

Prepared by/Author: The Associated Press

**Preparer/Author
Address:**

Prepared For: General Public

Date Published: November 13, 2000

**Key Words and
Phrases:**

Reference Type: D

ReferenceID: 464

Title: *Duwamish sites proposed for early clean up*

Location: AEM

Category: Site Update

Prepared by/Author: Ron Sims, King County Executive

**Preparer/Author
Address:**

Prepared For: News Release

Date Published: August 5, 2002

**Key Words and
Phrases:**

REFERENCES

Project Name LOWER DUWAMISH WATERWAY

ProjectID: 10-13

Reference Type: D

ReferenceID: 505

Title: *Cleanup of contaminated sediment to begin in Lower Duwamish*

Location: AEM

Category: Site Update

Prepared by/Author: Ron Sims

**Preparer/Author
Address:** King County

Prepared For: News Release

Date Published: September 10, 2003

**Key Words and
Phrases:**

Reference Type: D

ReferenceID: 506

Title: *Duwamish sludge bound for dump in Klickitat County*

Location: AEM

Category: Site Update

Prepared by/Author: The Associated Press

**Preparer/Author
Address:**

Prepared For: The Seattle (WA) Post-Intelligencer

Date Published: September 11, 2003

**Key Words and
Phrases:**

Reference Type: D

ReferenceID: 507

Title: *Tainted sludge won't go to Tacoma*

Location: AEM

Category: Site Update

Prepared by/Author: Tom Paulson

**Preparer/Author
Address:**

Prepared For: The Seattle (WA) Post-Intelligencer

Date Published: September 11, 2003

**Key Words and
Phrases:**

REFERENCES

Project Name LOWER DUWAMISH WATERWAY

ProjectID: 10-13

Reference Type: D

ReferenceID: 539

Title: *Problems surface in Duwamish cleanup*

Location: AEM

Category: Site Update

Prepared by/Author: Robert McClure

Preparer/Author

Address:

Prepared For: The Seattle (WA) Post-Intelligencer

Date Published: April 19, 2004

**Key Words and
Phrases:**

Reference Type: D

ReferenceID: 540

Title: *Duwamish cleanup spreads pollutants*

Location: AEM

Category: Site Update

Prepared by/Author: Lisa Stiffler

Preparer/Author

Address:

Prepared For: The Seattle (WA) Post-Intelligencer

Date Published: June 10, 2004

**Key Words and
Phrases:**

Reference Type: D

ReferenceID: 541

Title: *Superfund dredging spreads Duwamish River pollution*

Location: AEM

Category: Site Update

Prepared by/Author: Ian Ith

Preparer/Author

Address:

Prepared For: The Seattle (WA) Times

Date Published: June 10, 2004

**Key Words and
Phrases:**

REFERENCES

Project Name LOWER DUWAMISH WATERWAY

ProjectID: 10-13

Reference Type: E

ReferenceID: 217

Title: *Confined Aquatic Disposal and Capping of Contaminated Bottom Sediments in Puget Sound (first six pages only)*

Location: AEM

Category: Capping/Placement

Prepared by/Author: Alex Sumeri

Preparer/Author Address: US Army Corps of Engineers
Seattle, WA

Prepared For: WODCON 1990

Date Published: 1990

Key Words and Phrases:

Reference Type: M

ReferenceID: 291

Title: *Assessment Of Contaminant Isolation At The Duwamish Subaqueous Capping Site*

Location: AEM

Category: Capping/Placement

Prepared by/Author: (1) Nadim M. Aziz, (2) Paul R. Schroeder, (3) Alex Sumeri, (4) Carlos E. Ruiz, (5) Kristina L. Tate

Preparer/Author Address: (1, 5) Clemson University
Department of Civil Engineering
110 Lowry Hall
Clemson, SC 29634-0911
(2, 4) U.S. Army Engineer Research and Development Center
U.S. Army Engineer Waterways Experiment Station
3909 Halls Ferry Road
Vicksburg, MS 39180-6199
(3) U.S Army Corps of Engineers - Seattle District
11757 NE 140th Place
Kirkland, WA 98034

Prepared For: Journal of Dredging Engineering

Date Published: March 2001

Key Words and Phrases:

FISH ADVISORIES

Project Name **LOWER DUWAMISH WATERWAY**

ProjectID: 10-13

Advisory: Duwamish River

AdvisoryID: 1309

Extent: NA

Pollutant: Multiple

Species: all bottomfish

Population: RGP

Population Definition: Restricted Consumption-General Population: Advises the general population to restrict the size of the organisms and/or the frequency of meals consumed.

Advisory Type: Estuary

Advisory Number: 200112

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: Dave McBride

Contact Number: 360-236-3176

Advisory: Duwamish River

AdvisoryID: 1310

Extent: NA

Pollutant: Multiple

Species: all fish (liver)

Population: NCGP

Population Definition: No Consumption-General Population: Advise against consumption by the general population.

Advisory Type: Estuary

Advisory Number: 200112

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: Dave McBride

Contact Number: 360-236-3176

Advisory: Duwamish River

AdvisoryID: 1311

Extent: NA

Pollutant: Multiple

Species: shellfish-crab

Population: RGP

Population Definition: Restricted Consumption-General Population: Advises the general population to restrict the size of the organisms and/or the frequency of meals consumed.

Advisory Type: Estuary

Advisory Number: 200112

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: Dave McBride

Contact Number: 360-236-3176

FISH ADVISORIES

Project Name **LOWER DUWAMISH WATERWAY**

ProjectID: 10-13

Advisory: Duwamish River

AdvisoryID: 1312

Extent: NA

Pollutant: Multiple

Species: shellfish-bivalves

Population: NCGP

Population Definition: No Consumption-General Population: Advise against consumption by the general population.

Advisory Type: Estuary

Advisory Number: 200112

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: Dave McBride

Contact Number: 360-236-3176

Advisory: Duwamish River

AdvisoryID: 1313

Extent: NA

Pollutant: Multiple

Species: shellfish-crab (hepatopancreas)

Population: NCGP

Population Definition: No Consumption-General Population: Advise against consumption by the general population.

Advisory Type: Estuary

Advisory Number: 200112

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: Dave McBride

Contact Number: 360-236-3176
