

**DRAFT ENVIRONMENTAL ASSESSMENT
WESTPORT SLOUGH, OREGON, CHANNEL DEEPENING
CLATSOP COUNTY, OREGON**

INTRODUCTION

Westport Slough is located on the Oregon side of the Columbia River at about river mile (RM) 43.5 (Figure 1 and Figure 2). The Westport Slough project was originally authorized by the River and Harbor Act of 26 August 1937 and provided for a channel 28 feet deep, 200 feet wide, and about 3,500 feet long. The majority of the current channel is at or deeper than the authorized depth, except for the mouth of the slough. A historic Columbia River shoreline dredged material disposal site upstream of the slough mouth has eroded over time and formed a shoal at the entrance to Westport Slough. In recent years, the shoal has been maintained to a depth of 10 feet (plus 2 feet advance maintenance) to provide safe access for the Wahkiakum County Ferry, which traverses the river between Puget Island, Washington, and Westport, Oregon.

Environmental impacts of dredge material disposal near Westport Slough were initially considered in the 1975 “Columbia and Lower Willamette River Environmental Impact Statement”. Environmental impacts of maintenance dredging in the Westport Slough, including flowlane disposal of dredged materials at designated sites, have been most recently addressed in the 1991 “Environmental Assessment on Westport Slough, Oregon, Channel Dredging”.

PURPOSE AND NEED

Teevin Brothers, a local contractor, owns a rock staging area in the slough near the ferry landing. They have plans to ship rock on ocean-going barges to California and other markets outside Oregon. These barges will require a minimum depth of 20 feet to transit fully loaded. In order to provide this depth, the Corps would need to dredge the shoal at the entrance to Westport Slough to a depth of 22 feet (20 feet plus 2 feet advance maintenance) below Columbia River Datum (CRD).

PROPOSED ACTION AND ALTERNATIVES

Proposed Action

The proposed action is to dredge the shoal to a depth of 22 feet (20 feet plus 2 feet advance maintenance) below CRD. Current depths over the shoal are in the range of 1 to 8 feet below CRD. It is estimated that between 75,000 and 100,000 cubic yards of material would be dredged to provide the required depth. The dredging in-water work window for the Westport Slough is November through February.

In 2006, physical and chemical analyses were performed on sediment samples taken from the shoal to characterize sediment for the proposed dredging. Four vibra-core samples were collected. Because of the consolidated nature of the sand, the cores did not always penetrate to the full dredging prism depth (-22ft MLLW CRD). Although cores did not penetrate the full dredging prism depth, it is determined that the sample is adequate to characterize the entire dredging prism due to the homogeneous nature and high sand content of the material. In addition, the lack of a contamination source in the area and a low level of contamination in both historic and current data supports this approach. The combined averages for core samples indicate the material is 66.4% sand, 33.8% silt and clay, with 2.55% volatile solids. Based on the Dredged Material Evaluation

Framework (DMEF) screening levels for chemicals and metals, the material was determined to be suitable for unconfined in-water placement without further testing.

Clamshell dredges are generally used for side channel projects in the Columbia River. Clamshell dredging involves a bucket operated from a crane or derrick that is either mounted on a barge or operated from shore. Sediment removed from the bucket is usually placed on a barge for disposal. Bucket dredges are not self-propelled, so they are not typically used in high traffic areas. They can be used in shallow areas where draft restrictions limit other choices, and are often used in tight quarters around docks and piers.

Several options exist for dredge material disposal. There are two potential in-water disposal locations at nearby scour holes on the Washington side of the Columbia River. A scour hole at RM 43.55 is located downstream of the pile dike at Pancake Point on Puget Island. This scour hole has contributed to a loss of the beach at this location, which is threatening adjoining property. Local residents are keenly interested in receiving material to prevent further erosion of the beach. Wahkiakum County has received a permit from the Corps to allow placement of material in the scour holes. A scour hole at RM 40.51 near Welcome Slough is also an option for in-water disposal. Both scour hole sites are considered beneficial use sites since they will reduce shoreline erosion on Puget Island. An additional option is flowlane disposal, within or adjacent to the main channel of the Columbia where depths range from 35 to 60 feet, between RM 40 and RM 41.

No Action Alternative

The *No Action Alternative* maintains the status quo, with no change to current operations. In this case, dredging of the existing authorized channel to 10 feet (plus 2 feet advance maintenance) would continue. Dredging would take place as-needed to maintain the ferry channel and dredged material would be placed in the flowlane between RM 40 and 41. The shoal at the mouth of the slough has generally been dredged at approximately 2 year intervals with the last dredging effort occurring in 2001. Fiscal restrictions have prevented maintenance dredging since 2001, but recent events suggest that additional maintenance dredging is required. On December 28, 2006, the Wahkiakum Ferry grounded on a sandbar near the entrance to the Westport Channel.

AFFECTED ENVIRONMENT

General

The project area, the entrance to Westport Channel and the Columbia River near River Mile 43.5, is beyond the upper limit of saltwater intrusion and fresh water mixing on the Columbia River, but subject to tidal influence. Flow is regulated by the Federal Columbia River Power System. Within the Columbia River, the Federal navigation channel is currently under construction to its authorized depth of 43 feet; the navigation channel was previously maintained to an authorized depth of 40 feet and width of 600 feet. The commerce in the area around the ferry's Oregon terminus, Westport, is primarily agricultural, with some industry, typified by wood products and a rock crushing operation near the slough.

Physical Environment

The affected environment is the Westport Slough Channel at RM 43.5 on the Columbia River, scour holes on the Washington side of the Columbia River near Pancake Point at RM 40.51 and near Welcome Slough at RM 43.55, and the flowlane disposal site in the Columbia River between

RM 40 and 41. The substrate in the Westport Slough Channel shoal is composed primarily of sand and silty material. Substrate in the flowlane site and scour holes is primarily sand.

Biological Resources

Benthic Invertebrates. A baseline study of the benthic invertebrates near the Wahkiakum Ferry route (Puget Island-Westport Slough) was conducted in 1990. Five sites were sampled, three of which were near the slough mouth. The most abundant organism collected was *Corophium salmonis*, an important food resource for juvenile salmon. Densities of 1,200- 2,400 *Corophium salmonis* organisms per square meter were found. Next highest in abundance at the site were organisms from the class Oligochaeta (McCabe and Hinton, 1990).

Fish. Freshwater and estuarine fish species are present, with freshwater species predominant. Anadromous fish, both juveniles and adults, transit this area, including Federally listed salmonids. Subyearling fall chinook salmon and coho salmon may utilize the mouth and interior waters of Westport Slough for foraging and rearing purposes. Most adult salmonids will transit past Westport Slough as they move to upstream spawning areas. Some adult salmonids (winter steelhead, coho, searun cutthroat trout) will enter Westport Slough to ascend local tributaries to spawn. For sport fishing, the most significant anadromous fish species found in the Columbia River and adjacent tributaries include chinook and coho salmon, steelhead and sea run cutthroat trout. White sturgeon would occur in the project area although the extent of their site usage is unknown. Smelt and shad would pass through the general area as they migrate upstream. The slough contains a minor freshwater fishery for bass, crappie, perch, and catfish.

Wildlife. Waterfowl use the open water and shallow water areas of the Columbia River. Scaup spp. would likely be the most abundant waterfowl species in the vicinity of the Westport Slough mouth. Scaup utilize shallow shoals to forage for *Corbicula* and other benthic invertebrates. Common mergansers occur within Westport Slough where they forage for fish. Western grebes also utilize the open water areas at the mouth of Westport Slough to forage. Mallards and other species of ducks have a minimal presence at the mouth of Westport Slough due to the limited amount of tidal marsh habitat. Bald eagles and osprey perch along the river banks and forage in the adjacent river and Westport Slough. Both species have nests in the general area. Small mammals, including aquatic furbearers and terrestrial species, occur in the project vicinity. Big game occurrence is limited to adjacent terrestrial areas. Columbian white-tailed deer occupy adjacent lands. The riparian forest habitat that bounds the mouth of Westport Slough supports Neotropical and resident birds.

Threatened and Endangered Species.

One federally-listed bird species (Table 1), the bald eagle occurs in the project area and is known to forage at the mouth of Westport Slough. The Wauna bald eagle pair nests in the vicinity of the mouth of Westport Slough. The nest location for this pair is located upslope from the slough mouth and over a mile distant. Bald eagles observed perched and/or foraging at or near the mouth of Westport Slough are likely this pair.

Columbian White-tailed Deer occurs on the Oregon shore near the community of Westport. They do not occur within the project area.

The project area and potential disposal sites are transit corridors for 12 federally listed salmonid ESU's. The project area has also been designated as critical habitat for 2 of these listed ESU's. These species migrate through the general project area as both adults and juveniles but are not present or only present in small numbers during the winter season. Some rearing by juvenile subyearling chinook salmon may occur in the project area.

Table 1. Clatsop County listed species and listing status.

Run or Species	Scientific Name	Status
<u>Mammals</u>		
Steller sea lion	<i>Eumetopias jubatus</i>	T
Columbian white-tailed deer	<i>Odocoileus virginianus leucurus</i>	E
<u>Birds</u>		
Marbled murrelet	<i>Brachyramphus marmoratus</i>	T CH
Western snowy plover (coastal pop.)	<i>Charadrius alexandrinus nivosus</i>	T
Bald eagle	<i>Haliaeetus leucocephalus</i>	T
Brown pelican	<i>Pelecanus occidentalis</i>	E
Short-tailed albatross	<i>Phoebastria albatrus</i>	E
Northern spotted owl	<i>Strix occidentalis caurina</i>	T CH
<u>Fish</u>		
Chum salmon (Columbia River)	<i>Oncorhynchus keta</i>	T
Coho salmon (Lower Columbia River)	<i>Oncorhynchus kisutch</i>	T
Steelhead (Lower Columbia River)	<i>Oncorhynchus mykiss</i> ssp.	T
Steelhead (Snake River Basin)	<i>Oncorhynchus mykiss</i> ssp.	T
Steelhead (Middle Columbia River)	<i>Oncorhynchus mykiss</i> ssp.	T
Steelhead (Upper Columbia River)	<i>Oncorhynchus mykiss</i> ssp.	E
Steelhead (Upper Willamette River)	<i>Oncorhynchus mykiss</i> ssp.	T
Sockeye salmon (Snake River)	<i>Oncorhynchus nerka</i>	E CH
Chinook salmon (Lower Columbia River)	<i>Oncorhynchus tshawytscha</i>	T
Chinook salmon (Upper Columbia River)	<i>Oncorhynchus tshawytscha</i>	E
Chinook salmon (Upper Willamette River)	<i>Oncorhynchus tshawytscha</i>	T
Chinook salmon (Snake River)	<i>Oncorhynchus tshawytscha</i>	T CH
Bull Trout	<i>Salvelinus confluentus</i>	T
<u>Invertebrates</u>		
Oregon silverspot butterfly	<i>Speyeria zerene hippolyta</i>	T
<u>Plants</u>		
Howellia	<i>Howellia aquatilis</i>	T

Notes:

Status: E = endangered, T = threatened, CH=critical habitat

Social/Cultural Resources

The project area is primarily rural, supporting resource activities based on agriculture, fishing, lumber and tourism. The Wahkiakum County Ferry serves the area, providing the only route between Oregon and Washington between the bridges at Astoria, Oregon, and Longview, Washington. The James River Corporation wood products plant in nearby Wauna employs some of the ferry users; others are employed in Astoria. Most of the remainder of the ferry use is by tourists. Within the affected Columbia River/mouth of the slough area, there are no known historical or archeological resources.

The western side of the downstream confluence of Westport Slough was surveyed for cultural resources in 1975. Direct surface examination yielded no evidence of cultural deposits. Inspection of cut banks, ranging up to 1.5m in height, along both slough and river margins also showed no evidence of cultural resources (Jermann, 1976).

ENVIRONMENTAL EFFECTS

Physical Resources

The proposed dredging and disposal actions will change bottom topography. These changes can affect currents and sediment movement in the immediate area. Changing the bottom topography would disrupt and/or remove bottom habitat and organisms. Dredging would also resuspend bottom materials and both dredging and disposal will cause temporary increases in turbidity.

Biological Resources

Riparian and terrestrial habitat and the wildlife it supports would not be affected by the dredging activity. Disposal operations would not impact these habitats. There is already substantial disturbance from human activity in the area, including frequent ferry traffic in and out of the Westport Slough.

Benthic organisms would be impacted by the dredging. These communities would eventually reestablish with no long-term effect on the overall population anticipated. Fish and waterfowl use areas would be subject to disturbance during dredging activities. Loss of foraging resources would occur temporarily due to dredging and disposal actions. Juvenile and adult anadromous fish which use this portion of the river would probably avoid the area during dredging and disposal activities, warm water fish within the project area would temporarily relocate to less disturbed areas. Use by waterfowl is minimal; however avoidance of the project area during dredging activity by those present is expected. No long-term adverse effects are anticipated.

Dredged material removed by clamshell dredge and disposed in the flowlane or scour holes would cover any organisms present in the disposal site. These organisms would be expected to recolonize the area after disposal is complete. By nature, scour hole disposal sites should be high energy areas that are less productive than shallow water, low energy areas of the river. Disposal would also result in some short-term turbidity. The disposal plume will pass through the water column and create a turbid environment that may cause fish to move out or avoid the area. Larger macroinvertebrates and bottom-dwelling fish may be swept out of the sites by the sheer force of the disposal material as it spreads out on the bottom. This could result in the injury or death of these organisms. A minor, temporary loss of foraging habitat for the Lesser Scaup, and possibly the Greater Scaup, would occur. Scaup occur in far larger concentrations downstream of the project below RM 38. The mouth of Westport Slough is an area of minor importance to scaup spp.

All of these impacts are considered temporary and short term, therefore no long-term negative impacts to biological resources are expected from implementing this project.

Threatened and Endangered Species

Biological assessments with effects determinations for listed species were submitted to the National Marine Fisheries Service (NMFS) and US Fish and Wildlife Service (USFWS) for the original project. A letter modifying the project description has been provided to the services for their concurrence in its conclusion under the existing biological opinion. The proposed action is not likely to adversely affect any Federally-listed or candidate threatened or endangered species or their critical habitat. The entire Columbia River is designated Essential Fish Habitat (EFH) for both Coho and Chinook salmon. The proposed dredging and disposal actions have the potential to impact EFH for both of these salmon species. Migration habitat can be impacted by dredge operations. Vibration and noise from dredging operations may displace or otherwise harass both adult and juvenile salmon during their migration. For coastal pelagics and groundfish, designated EFH extends to approximately RM 25. No direct or indirect effects from the proposed dredging or disposal would extend that far downriver.

Temporary increases in suspended sediment and resultant turbidity from dredging and disposal operations also may impact salmon migration habitat.

Cultural Resources

Increasing the channel depth from 12 feet to 22 feet is unlikely to affect cultural resources given the absence of cultural sites at the confluence of Westport Slough and the Columbia River.

No impacts to cultural resources in the flowlane disposal site or scour hole disposal sites are anticipated. These disposal areas are erosive and/or high energy areas within the main channel of the Columbia River. Any dredged material deposited in these disposal areas will disperse over time.

Cumulative Effects

There will be some short-term, temporary impacts to physical and biological resources from dredging and disposal activities as previously described. There is an existing maintenance dredging program that includes the main navigation channel of the Columbia River near the entrance to Westport Slough. In addition, there is maintenance dredging of the ferry channel that includes areas in the Westport Slough as well as sections of the ferry channel directly across from Westport Slough on the Washington side of the Columbia River near the Puget Island ferry ramp. These existing maintenance dredging operations would not compound the impacts of the proposed dredging operation. Adverse effects to water resources will be avoided or minimized by implementing dredging Best Management Practices.

COORDINATION

This Draft Environmental Assessment (EA) has been distributed for 30-day public review. Review comments will be requested from federal and state agencies as well as interested publics. The following agencies were sent a copy of this document:

U.S. Environmental Protection Agency
U.S. Fish and Wildlife Service
National Marine Fisheries Service
Oregon State Historic Preservation Office

Oregon Department of Environmental Quality
Oregon Department of Fish and Wildlife
Oregon Department of Water Resources
Oregon Parks and Recreation Department
Washington Department of Fish & Wildlife
Washington Department of Ecology
Cowlitz Indian Tribe

CONSULTATION REQUIREMENTS

National Environmental Policy Act

This Environmental Assessment satisfies the requirements of the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.).

Endangered Species Act

In accordance with Section 7(a)(2) of the Endangered Species Act of 1973, as amended, federally funded, constructed, permitted, or licensed projects must take into consideration impacts to federally listed or proposed threatened or endangered species. The USFWS list of endangered or threatened species is attached as Appendix A. Biological assessments have been prepared for the proposed action addressing federally listed species under the jurisdiction of the NMFS and the USFWS. The biological assessments will be provided to the respective agencies for their review and consultation.

Clean Water Act

Clean Water Act of 1977 (33 USC 1344): In compliance with the Clean Water Act, a Section 404 (b) (1) Evaluation has been prepared and a state water quality (401) certification has been requested from the State of Oregon concurrent with the public review of this Environmental Assessment.

Magnuson-Stevens Fishery Conservation and Management Act (MSA)

An assessment for Essential Fish Habitat is included above and will be provided to the NMFS for their review and consultation.

Clean Air Act

The Clean Air Act of 1970, as amended, established a comprehensive program for improving and maintaining air quality throughout the United States. Its goals are achieved through permitting of stationary sources, restricting the emission of toxic substances from stationary and mobile sources, and establishing National Ambient Air Quality Standards (NAAQS). Title IV of the Act includes provisions for complying with noise pollution standards. The proposed action is in compliance with this act.

National Historic Preservation Act

Section 106 of the National Historic Preservation Act requires that a federally assisted or federally permitted projects account for the potential effects on sites, districts, buildings, structures, or objects that are included in or eligible for inclusion in the National Register of Historic Places.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act of 1934 states that federal agencies involved in water resource development are to consult with the USFWS and state agency administering wildlife resources concerning proposed actions or plans. The proposed action has been coordinated with the USFWS and ODFW in accordance with the Act through review of this EA.

Comprehensive and Environmental Response, Compensation and Liability Act

The location of the proposed project is not within the boundaries of a site designated by the USEPA or the State of Oregon for a response action under Comprehensive and Environmental Response, Compensation and Liability Act (CERCLA), nor is it a part of a National Priority List site under CERCLA. Should any hazardous or toxic waste material be discovered during dredging, its presence will be responded to within the requirements of the law and Corps' regulations and guidance.

Executive Order 11988, Floodplain Management

This executive order requires federal agencies to consider how their actions may encourage future development in floodplains, and to minimize such development. The proposed action is in compliance with Executive Order 11988.

Executive Order 11990, Protection of Wetlands

This executive order requires federal agencies to protect wetland habitats. The proposed action is in compliance with Executive Order 11990.

Executive Order 12898, Environmental Justice

This executive order requires federal agencies to consider and minimize potential impacts on subsistence, low-income or minority communities. The goal is to ensure that no person or group of people should shoulder a disproportionate share of the negative environmental impacts resulting from the execution of this country's domestic and foreign policy programs. This proposed action is in compliance with Executive Order 12898.

Analysis of Impacts on Prime and Unique Farmlands

No change to prime and unique farmlands would occur from the proposed action.

LITERATURE CITED

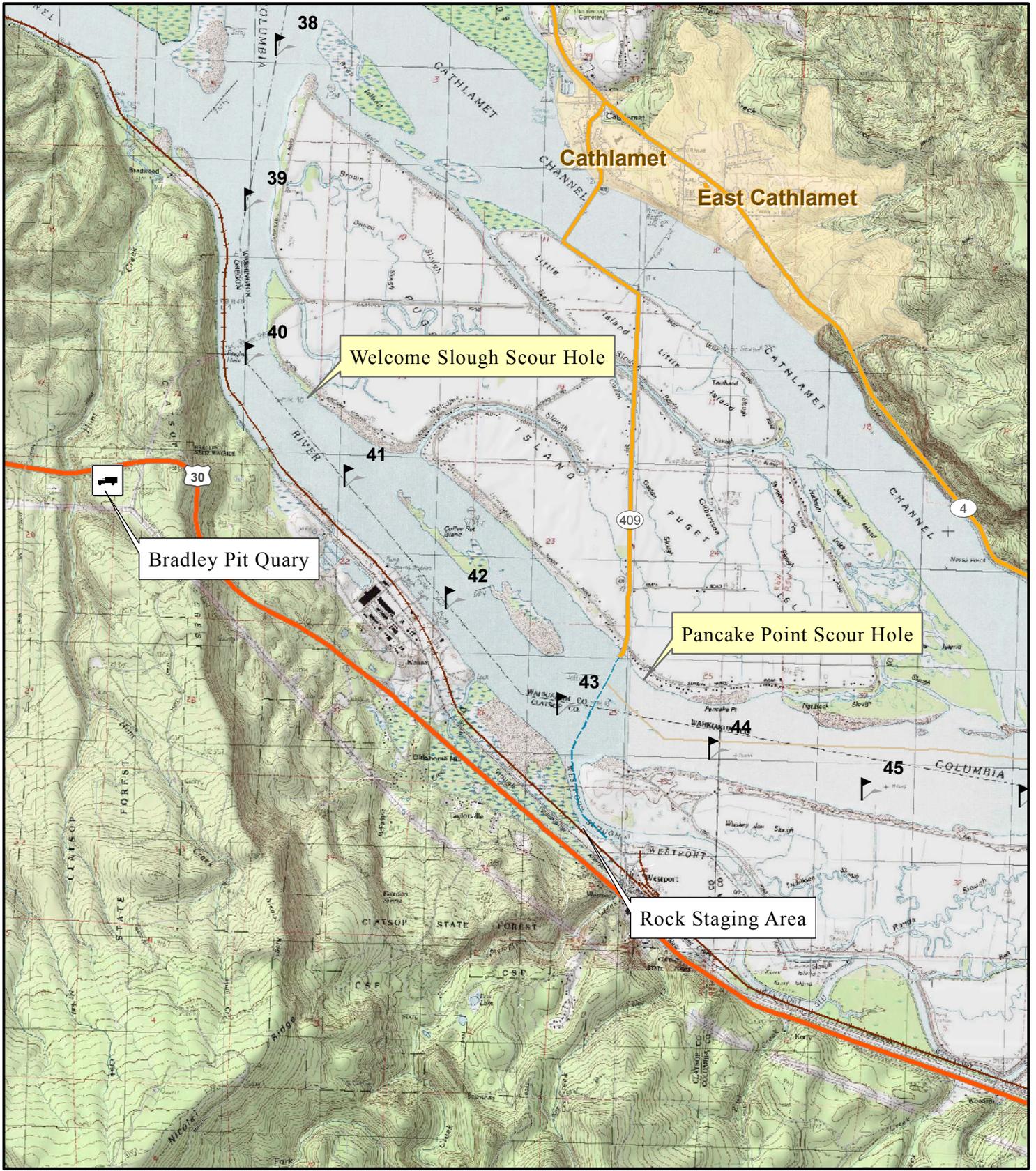
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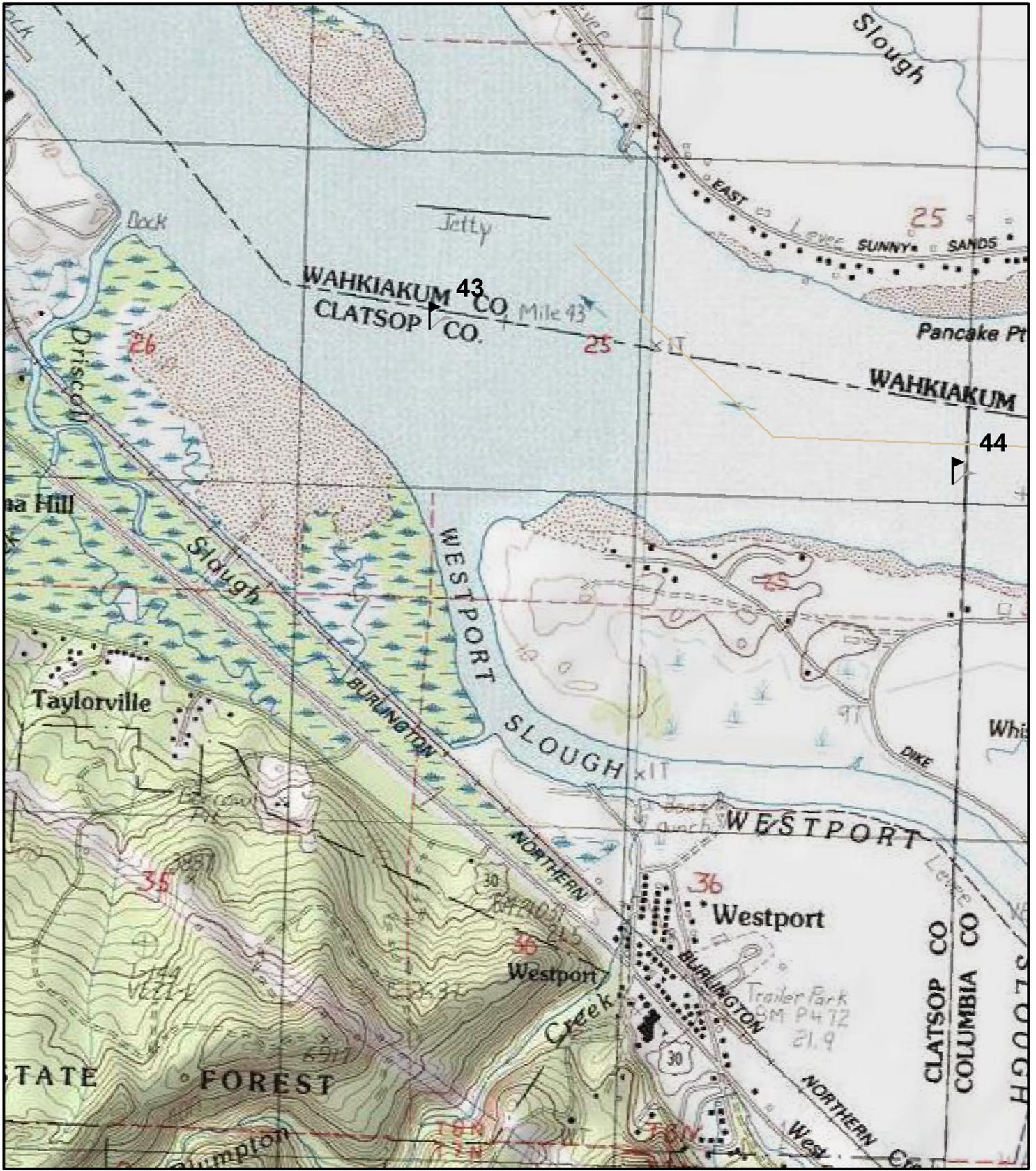
Westport Slough



USACE Portland District
Environmental Assessment
Figure 1
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Westport Slough



USACE Portland District

Environmental Assessment Figure 2

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