Welcome!

A Channel Maintenance Plan is needed to ensure the 43-foot-deep Lower Columbia River Federal Navigation Channel continues to be operational for another 20 years.

Lead federal agency and non-federal sponsors/cooperating agencies:
- Portland District of the U.S. Army Corps of Engineers
- Ports of Longview, Kalama, Woodland, Vancouver, and Portland (Sponsor Ports)

Contracted hopper and pipeline dredges work together to remove sand deposits from the navigation channel near Vancouver, Washington.

Lower Columbia River Federal Navigation Channel
What are NEPA and SEPA?

The National Environmental Policy Act (NEPA) and Washington State Environmental Policy Act (SEPA) are environmental review processes that identify and evaluate possible effects of a project.

The Corps is the lead federal agency under NEPA for preparing the Environmental Impact Statement (EIS). The Sponsor Ports are cooperating agencies under NEPA and the Washington ports are the co-lead agencies for actions that require compliance with SEPA. A joint NEPA/SEPA EIS will be prepared after scoping.

How will input during scoping be used?

- Define the breadth of environmental resources and effects to evaluate
- Identify alternatives to be considered
- Determine new sources of data or information

<table>
<thead>
<tr>
<th>2017</th>
<th>2018</th>
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<tbody>
<tr>
<td>Scoping</td>
<td>Develop &amp; Evaluate Alternatives</td>
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<td>Collect information, ideas and concerns from public, tribes, agencies and others to consider while planning for the next 20 years of channel maintenance and placement of dredged material.</td>
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<td><strong>Notice for public Input</strong></td>
<td><strong>Draft EIS &amp; Develop Preferred Plan</strong></td>
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<td>This input informs the analysis of potential effects, the suite of alternatives that meet the project’s purpose and need, and the criteria for evaluation and comparison of alternatives.</td>
<td>Identify alternatives to be assessed in detail and compare direct, indirect, and cumulative environmental effects of the alternatives and select the preferred plan.</td>
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<td><strong>Final EIS and Plan</strong></td>
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<td>Prepare and publish the final integrated EIS and Plan, which will include responses to substantive comments. Issuance of the final EIS completes the Ports’ SEPA process.</td>
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<td><strong>Record of Decision</strong></td>
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<td>Decision by Corps’ Northwestern Division Commander completes the Corps’ NEPA process.</td>
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<td><strong>Plan Implementation</strong></td>
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The following are likely to be evaluated in the EIS:

Air Quality
Water Quality
Biological Environment (Terrestrial and Aquatic Species)
Socioeconomics
Land Use
Recreation
Aesthetics
Historic and Cultural Resources
Transportation

The topics and subject matter that are evaluated may be further refined as work on the EIS proceeds.
Lower Columbia River Channel Maintenance Plan

CHANNEL MAINTENANCE OVERVIEW

What is channel maintenance?
- The Lower Columbia River Federal Navigation Channel is 43 feet deep and generally 600 feet wide.
- Maintenance is conducted from the mouth of the Columbia River at river mile 3 to Vancouver, Washington, at river mile 105.5.
- The channel is maintained using a combination of dredging and hydraulic control works (pile dikes).
- The channel area fills with 6 to 8 million cubic yards of sand annually that must be removed by dredging to provide service for deep-draft navigation. Sand deposits are constantly moving, so in order to maintain the channel, the Corps dredges those sand deposits to a depth up to 5 feet and width up to 100 feet greater than the channel dimensions.

Why is a Plan needed?
- Existing dredged material placement sites are filling up and space is needed for the material to be dredged each year.
- Corps policy requires all federally maintained navigation projects to demonstrate that there is enough dredged material placement capacity for a minimum of 20 years.
- How much sand will need to be dredged and placed over the next 20 years
- How much space is left in current placement sites and where new sites will be needed for continued maintenance
- Opportunities to use dredged material beneficially to enhance the environment and community
- Measures to reduce the need to dredge
- Measures to reduce impacts on people and the environment
- Other actions needed to be able to implement the Plan, such as improving current channel maintenance structures

What are the Plan objectives?

The Plan will be designed to enable efficient channel maintenance and management of dredged material, accounting for variability of the processes that move sand in the river. The Plan will identify:

- The Corps hopper dredge YAQUINA maintaining the channel near the Port of Longview, Washington
- Dredged material placement along the shoreline of Pillar Rock Island to restore upland area that is critical habitat for streaked horned larks
- A dozer spreading dredged material to restore an eroded area of Miller Sands spit, and ships (background) anchored upstream of the Astoria-Megler Bridge

Photography by Michael Mathers
Where is dredged material placed?

Space is needed for the material to be dredged from the channel each year, and existing placement sites are filling up. Material is placed in several types of locations:

- Specific upland areas that are least likely to erode back into the channel
- Places where it will be used beneficially to create habitat, restore eroding islands, or serve as fill material for construction projects
- Along shore as beach nourishment to restore eroded areas
- Strategic in-river locations that will not increase future dredging needs in the channel
- Designated ocean sites

How does the Corps place the material?

Various methods are used, depending on the type of dredging equipment. The typical placement methods for pipeline and hopper dredges are:

**Pipeline dredge placement on shore:**
- A pipeline dredge is limited by the distance it can pump material through its pipeline. The Port of Portland’s pipeline dredge can place material within 2 miles of the dredging area.
- A mixture of water and clean dredged material is pumped to shoreline locations and upland areas.
- After the material settles, it is graded by bulldozers and tractors according to the site’s design.
- Water that meets water quality standards then flows back into the river system naturally or through a controlled return-water system.

**Hopper dredge in-water placement:**
- Hopper dredges typically place material back into the river within 10 miles of the dredging area.
- The Corps uses bathymetric data, sediment transport analysis, and engineering judgement to determine strategic in-river placement locations.
- Material removed within the first 30 miles of the Columbia River may be placed in already designated sites in the Pacific Ocean.
PLACEMENT SITE SELECTION CONSIDERATIONS

What input is helpful now?
Input that is particularly helpful during scoping includes identifying:

• Potential new placement areas
• Current placement areas that could be expanded
• Potential uses of dredged material to benefit the environment or community

We will look for a variety of placement site options (upland, shoreline, in-water) in each river reach.

How do we choose a new placement site?
Proximity to areas to be dredged is important when looking for new material placement sites. The Corps and the Sponsor Ports will look for new sites in reaches to be dredged and where placement is technically feasible.

Site selection criteria for upland and shoreline placement include:

- 10 acres or greater
- Access to the river for an incoming dredged material pipeline and return of excess water
- Within 7,000 feet of a shoal that needs to be dredged
- Clear property title and no utilities
- Property owner agrees to sign standard easement or purchase

How do I suggest another placement site?
If you want a site to be considered for placement in the future, please provide this information in a scoping input form.
Lower Columbia River Channel Maintenance Plan

RECENT HISTORY OF DREDGING AND PLACEMENT BY REACH

The data represents the results of data processing for a specific U.S. Army Corps of Engineers activity and indicates the general existing conditions. As such, it is only valid for its intended use, content, time, and accuracy specifications. The user is responsible for the results of any application of the data for other than its intended purpose.

Geospatial Analysis: Alyssa Moore, Bowhead Total Enterprise Solutions, Portland District USACE

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend:
- More
- Less
Dredging
In-Water Placement
Upland Placement
Dredging and Dredged Material Placement 2011-2016
Lower Columbia River Channel Maintenance Plan

RECENT HISTORY OF DREDGING AND PLACEMENT BY REACH

Legend:
- More Dredging
- Less Dredging
- More In-Water Placement
- Less In-Water Placement
- More Upland Placement
- Less Upland Placement

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Dredging and Dredged Material Placement 2011-2016
The Corps is working with the Sponsor Ports and other lower Columbia River ports to maintain the region’s main deep-draft navigation channel.

As the non-federal sponsors, the Sponsor Ports have two primary responsibilities:

- Share project funding with the Corps for construction, dredged material placement, and related restoration activities
- Secure upland and shoreline dredged material placement sites, through purchase or easement, and to obtain state and local permits for those placement sites
Lower Columbia River Channel Maintenance Plan

HOW TO PROVIDE INPUT

Input can be provided until:

NOVEMBER 2017

WWW
Input can be submitted online at:
http://lcrchannelmaintenancecomments.com/

Input can be submitted by email:
ColumbiaNavChannel@usace.army.mil

Input can be submitted by mail:
Kate Wells, U.S. Army Corps of Engineers
Attn: PM-E, PO Box 2946 Portland, OR 97208-2946

Input can be submitted in person:
Written input can be given to any project staff at public meetings

For information on additional public scoping meetings, visit the project webpage:
www.nwp.usace.army.mil/LCRChannelMaintenance or call: (503) 808-4510