



**LEGEND**

- Federal Navigation Channel
- Federal Navigation Channel Centerline
- Pipeline, Submarine On Land Line
- Cable, Overhead
- Cable, Submarine
- Pipeline, Overhead
- Anchorage Area
- Dredged Material Placement Area
- Cable Area
- Pipeline Area
- Shoaling Area
- Buoy, Lateral
- Buoy, Cardinal
- Buoy, Isolated Danger
- Buoy, Safe Water
- Buoy, Special Purpose
- Beacon, General
- Buoy, King Pile
- Buoy, Shoal Sounding
- Benchmark
- Pylon Bridge Support
- Rock
- Obstruction Point
- Wreck-Submerged
- Staff Gage
- Steel King Pile
- Shoal Sounding

**NOTES:**

Horizontal Coordinate System:  
North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), Oregon North Zone. Distance units in U.S. Survey Feet.

Vertical Datum:  
Soundings are shown in feet and indicate depths below Mean Lower Low Water. MLLW is 0.13 feet below the North American Vertical Datum (NAVD) 83 Goid (9) at Columbia River Mile 10.9, 0.17 feet above at Columbia River Mile 13.4.

River mileage conforms to the River Mile Index of the Hydrology and Hydraulics Committee, Pacific Northwest River Basin Commission, July 1972.

The information depicted on this map represents the results of a survey conducted on the date indicated and can only be considered to represent the general channel conditions existing at that time and is not in support of channel maintenance only.

\*\* Shoal Sounding per Quarter per Reach

STAFF GAGE AT BRIDGE PIER: Northing: 938345 Easting: 7355764

CONDITION  PREDREDGE  POSTREDREDGE

COLUMBIA AND LOWER WILLAMETTE RIVERS  
BELOW VANCOUVER, WASH. AND PORTLAND, OREG.  
**COLUMBIA RIVER**

**FLAVEL BAR**

19 April 2024

SCALE IN FEET  
0 500 1000 1500 2000 2500

SUBMITTED: \_\_\_\_\_ APPROVED: \_\_\_\_\_  
RECOMMENDED: \_\_\_\_\_ CHIEF, WATERWAYS MAINTENANCE SECTION

CHIEF, SURVEY SECTION \_\_\_\_\_ SURVEYED: \_\_\_\_\_ PLOTTED: \_\_\_\_\_ CHECKED: \_\_\_\_\_

CL\_03\_FLVX\_20240419\_CS