



U.S. Department
of Homeland Security
**United States
Coast Guard**

LOCAL NOTICE TO MARINERS

District: 13

Week: 28/22

ISSUED BY: COMMANDER, THIRTEENTH COAST GUARD DISTRICT (dpw)
915 Second Avenue, 35th Floor, Rm 3510, Seattle, Washington 98174-1067
Telephone: (206) 220-7280
Email: D13-SMB-D13-LNM@uscg.mil
<https://www.pacificarea.uscg.mil/Our-Organization/District-13/District-Staff/-dpw/>
<https://www.navcen.uscg.gov/local-notice-to-mariners?district=13+0&subdistrict=n>

For all Notice to Mariner submissions:
Call (206) 220-7280 or email D13-SMB-D13-LNM@uscg.mil at least two weeks prior to the start of your event or work.

COMDTPUB P16502.6, Light List Volume VI, Pacific Coast and Pacific Islands, 2022 Edition, is available at
https://www.navcen.uscg.gov/sites/default/files/pdf/lightLists/LightList_V6_2022.pdf

Coast Pilot Volume 10, Oregon, Washington, Hawaii and Pacific Islands, 2022 (3rd) Edition, is available at
https://www.nauticalcharts.noaa.gov/publications/coast-pilot/files/cp10/CPB10_WEB.pdf

Coast Pilots, along with corrections, are available at: www.nauticalcharts.noaa.gov/publications/coast-pilot/index.html. Print on Demand (POD) copies are available for purchase at: www.nauticalcharts.noaa.gov/publications/print-agents.html#coast-pilot.

UNITED STATES COAST GUARD NAVIGATION INFORMATION SERVICE (NIS)

The United States Coast Guard Navigation Information Service (NIS), operated by the USCG Navigation Center, is staffed 24 hours a day, 7 days a week. The NIS provides information on the current operational status, effective policies, and general information for GPS and DGPS. The NIS also disseminates Safety Broadcasts / Broadcast Notice to Mariners (BNM), Local Notice to Mariners (LNM), and the latest Notice Advisory to Navstar Users (NANU). LNMs, BNMs and other navigation notices can be obtained via e-mail subscription through the USCG Navigation Center website:

<https://www.navcen.uscg.gov/subscribe-email-rss-feeds>

In addition, the NIS investigates all reports of degradation or loss of GPS service and discrepancies to Aids to Navigation.

Mariners are encouraged to report all degradation of radio navigation services, or Aids to Navigation discrepancies to the NIS via phone: (703) 313-5900 or online at: <https://www.navcen.uscg.gov/report-a-problem>

BROADCAST NOTICE TO MARINERS

Urgent marine navigational and weather information is broadcast over VHF channel 22A (157.1 MHz). Broadcasts are initially announced over the distress, safety and calling channel 16 before they are made on channel 22A. All ships in U.S. waters over 20 meters in length are required to monitor VHF channel 16, and must have radios capable of tuning to the VHF simplex channel 22A. BNM are now available online as well. To view or download District 13 BNMs visit <https://www.navcen.uscg.gov/broadcast-notice-to-mariners-search?district=13>

This section contains a range of all the significant Broadcast Notice to Mariners (BNM's) on the date of this edition.

Originating Unit
CGD THIRTEEN

Beginning BNM
D13-0482-22

Ending BNM
D13-0502-22

ABBREVIATIONS

A through H

ADRIFT - Buoy Adrift
AICW - Atlantic Intracoastal Waterway
Al - Alternating
B - Buoy
BKW - Breakwater
bl - Blast
BNM - Broadcast Notice to Mariner
bu - Blue
C - Canadian
CHAN - Channel
CGD - Coast Guard District
C/O - Cut Off
CONT - Contour
CRK - Creek
CONST - Construction
DAYMK/Daymk - Daymark
DBN/Dbn - Daybeacon
DBD/DAYBD - Dayboard
DEFAC - Defaced

I through O

I - Interrupted
ICW - Intracoastal Waterway
IMCH - Improper Characteristic
INL - Inlet
INOP - Not Operating
INT - Intensity
ISL - Islet
Iso - Isophase
kHz - Kilohertz
LAT - Latitude
LB - Lighted Buoy
LBB - Lighted Bell Buoy
LHB - Lighted Horn Buoy
LGB - Lighted Gong Buoy
LONG - Longitude
LNM - Local Notice to Mariners
LT - Light
LT CONT - Light Continuous
LTR - Letter

P through Z

PRIV - Private Aid
Q - Quick
R - Red
RACON - Radar Transponder Beacon
Ra ref - Radar reflector
RBN - Radio Beacon
REBUILT - Aid Rebuilt
RECOVERED - Aid Recovered
RED - Red Buoy
REFL - Reflective
RRL - Range Rear Light
RELIGHTED - Aid Relit
RELOC - Relocated
RESET ON STATION - Aid Reset on Station
RFL - Range Front Light
RIV - River
RRASS - Remote Radio Activated Sound Signal
s - seconds
SEC - Section

DEST - Destroyed
DISCON - Discontinued
DMGD/DAMGD - Damaged
ec - eclipse
EST - Established Aid
ev - every
EVAL - Evaluation
EXT - Extinguished
F - Fixed
fl - flash
FI - Flashing
G - Green
GIWW - Gulf Intracoastal Waterway
HAZ - Hazard to Navigation
HBR - Harbor
HOR - Horizontal Clearance
HT - Height

LWB - Lighted Whistle Buoy
LWP - Left Watching Properly
MHz - Megahertz
MISS/MSNG - Missing
Mo - Morse Code
MRASS - Marine Radio Activated Sound Signal
MSLD - Misleading
N/C - Not Charted
NGA - National Geospatial-Intelligence Agency
NO/NUM - Number
NOS - National Ocean Service
NW - Notice Writer
OBSCU - Obscured
OBST - Obstruction
OBSTR - Obstruction
Oc - Occulting
ODAS - Anchored Oceanographic Data Buoy

SHL - Shoaling
si - silent
SIG - Signal
SND - Sound
SPM - Single Point Mooring Buoy
SS - Sound Signal
STA - Station
STRUCT - Structure
St M - Statute Mile
TEMP - Temporary Aid Change
TMK - Topmark
TRLB - Temporarily Replaced by Lighted Buoy
TRLT - Temporarily Replaced by Light
TRUB - Temporarily Replaced by Unlighted Buoy
USACE - Army Corps of Engineers
W - White
Y - Yellow

Additional Abbreviations Specific to this LNM Edition:

AtoN - Aids to Navigation
COTP - Captain of the Port
CPA - Closest Point of Approach
LLNR - Light List Number

NAVCEN - U.S. Coast Guard Navigation Center
NM - Nautical Miles
ODOT - Oregon Department of Transportation
RM - River Mile Marker

S-AIS - Synthetic AIS
V-AIS - Virtual AIS
VTS - Vessel Traffic Service
WSDOT - Washington State Department of Transportation

SECTION I - SPECIAL NOTICES

This section contains information of special concern to the Mariner.

OREGON – WILLAMETTE RIVER – PORT OF PORTLAND – Bridge Deviation

The Coast Guard intends to issue a temporary deviation to the operating schedule that governs the Broadway Highway Bridge (LLNR 14955.2), mile 11.7, Burnside Highway Bridge (LLNR 14955.4), mile 12.4, and the Morrison Highway Bridge (LLNR 14955.5), mile 12.8, crossing the Willamette River at Portland, Oregon. This deviation is necessary to accommodate the Portland Marathon Run event. This deviation allows the three bridges to remain in the closed-to-navigation position to allow safe and timely movement of event participants from 0630 until 1400 on 02 Oct 2022. The vertical clearances for these bridges in the closed-to-navigation position are: 90 feet for the Broadway Bridge, 64 feet for the Burnside Bridge and 69 feet for the Morrison Bridge (all clearances are referenced to the vertical clearance above Columbia River Datum 0.0.) Vessels which do not require a bridge opening may continue to transit beneath these bridges during this closure period. The bridges will be able to open for emergencies, and there is no immediate alternate route for vessels to pass. In accordance with 33 CFR 117.35(e), the drawbridges must return to their regular operating schedule immediately at the end of the effective period of this temporary deviation. For additional information contact Matt Studer at matt.d.studer@multco.us. If any mariner cannot support this closure request time period, submit an objection by 29 Jul 2022 to d13-smb-d13-bridges@uscg.mil.

Chart 18526

LNM: 28/22

OREGON – WILLAMETTE RIVER – PORTLAND TO WALNUT EDDY – ROCK ISLAND CHANNEL – Floating aids to navigation

Mariners are advised to exercise extra caution and proceed at a safe speed when navigating the Rock Island Channel section of the Willamette River, mile 29.5 to 30.7. The Coast Guard has received reports that several of the seasonal buoys in this channel are off station and/or missing. Prudent mariners will not rely solely on any single aid to navigation, particularly buoys, whose position is not permanently fixed. Due to the high water levels this spring and summer, and the predominantly rocky riverbed in this area, the Rock Island Channel buoys are susceptible to moving off their assigned position. Additionally, sections of Rock Island Channel are very narrow and contain multiple hazards, requiring the buoys to be positioned very close to the hazards they mark. Passing close aboard to a buoy risks collision with the buoy or with the hazard the buoy is marking.

LNM: 28/22

WASHINGTON – COLUMBIA RIVER TO DESTRUCTION ISLAND – Research activities and mooring deployments

The University of Washington will be deploying eight research moorings off the Washington Coast, located between 20 – 30 NM offshore of Grays Harbor from 20 – 23 Jul 2022. The moorings will have be at various depths, from the sea bed up to the surface. The one surface mooring will be a 2 foot diameter, yellow float with a yellow light flashing 5 times at one second intervals and then dark for 15 seconds (FL (5) Y 20s). The moorings are expected to remain on site through April of 2023.

The moorings are located, from north to south, at the following locations and depths:

47-06-17.430 N, 124-49-31.744 W, 26 feet below surface
47-04-02.070 N, 124-40-12.664 W, 66 feet below surface
47-03-53.430 N, 124-40-54.064 W, 26 feet below surface
47-02-27.030 N, 124-47-48.064 W, on surface
47-02-24.092 N, 124-48-02.140 W, on the sea bed
47-01-00.630 N, 124-54-42.064 W, 26 feet below surface
47-00-51.990 N, 124-55-23.464 W, on the sea bed
46-58-36.630 N, 124-46-04.384 W, 26 feet below surface

The R/V Sally Ride will be onscene conducting the deployments of the equipment, and will remain in the vicinity to conduct towed sensor

operations until 10 Aug 2022. The R/V Sally Ride can be hailed on VHF-FM channel 16 or via cell phone at (858) 253-1347. Mariners are requested to remain 300 yards from any equipment and should avoid trailing any gear or equipment to prevent entanglement when transiting in the vicinity. For additional information, contact John Mickett at (206) 291-5606 or email at mickett@uw.edu.

Chart 18500

LNM: 28/22

WASHINGTON – COWLITZ RIVER – Bridge notice (Revised from LNM 17/22)

Utility work will be performed on State Route 411 Castle Rock Bridge located in Castle Rock, WA, across the Cowlitz River at river mile 17.4. Cable replacement will take place from 15 Jul - 01 Oct22, Monday through Friday between 0700 – 1700 daily. The cable replacement will be performed using an under-bridge inspection truck (UBIT) that occupies a portion of the roadway on the subject bridge. The UBIT will be the give way vessel, but mariners are advised to use caution while transiting the area and not transit directly underneath the UBIT. The SR-411 Bridge has a vertical clearance of 8.6 feet at high tide. The UBIT requires 5 to 10 feet of vertical clearance under the bridge at high tide, therefore mariners should expect no clearance in the vicinity of the UBIT. The subject bridge provides 28 feet of vertical clearance at low tide. The UBIT can lower the vertical clearance to 18 feet at low tide. The UBIT will be equipped with a flashing amber light. For additional information, contact Mark Guz at (360) 518-4464 or mark.guz@lumen.com.

LNM: 28/22

WASHINGTON – APPROACHES TO ADMIRALTY INLET – Sequim Bay autonomous surface vessel deployment

The Pacific Northwest National Laboratory (PNNL) will be operating an autonomous surface vessel, associated sensors and small drifting floating sensors in Sequim Bay, Washington for approximately 2 weeks between July 18th and Aug 5th. The 10-foot long catamaran operates on the surface but may be towing submerged sensors. Mariners are asked to keep a distance of 100 feet away from the vessel. The vessel will be clearly marked with the word "Research" and the Department of Energy logo on both sides, and will display navigation lights for a powered vessel of its size. The vessel will carry AIS and broadcast its position under the name Jonesy with an MMSI number of 369914068. The research vessels DESDEMONA or STRAIT SCIENCE may be on scene during some operations and may be hailed on VHF-FM channel 16. For additional information, contact PNNL Marine Sciences Laboratory, Rob Cavagnaro, at (260) 528-3372 or email asvjonesy@pnnl.gov.

Chart 18471

LNM: 28/22

WASHINGTON – PUGET SOUND – SEATTLE TO BREMERTON – ELLIOTT BAY - 2022 Fleet Week Maritime Festival Security Zones

The Coast Guard will enforce the Seafair Fleet Week Moving Vessels Security Zones around all the participating vessels, including U.S. Naval Vessels, USCGC HENRY BLAKE (WLM-563), USCGC ANACAPA (WPB-1335), USCGC TERRAPIN (WPB-87366), USCGC OSPREY (WPB-87307), HMCS SASKATOON (MM 709), HMCS YELLOWKNIFE (MM-706), and the Fireboat LESCHI. The Moving Vessels Security Zones includes all waters within 500 yards from all vessels while each vessel is participating in the Seafair Fleet Week Parade of Ships on 01 Aug 2022, and while moored following the parade, and until their departure. Additionally, mariners are reminded that during Fleet Week all U.S. Naval Vessels are protected by a Naval Vessel Protection Zone (NVPZ). When in effect, both Seattle's Seafair Fleet Week Moving Vessels Security Zone and the NPVZ require all vessel operators within 500 yards of protected vessels to maintain a minimum speed to stay on course and must not approach within 100 yards of the protected vessels. All vessel operators who desire to enter the security zones must obtain permission from the Captain of the Port by contacting the on-scene Coast Guard patrol craft of VHF-FM CH 13 or CH 16. The request must include a reason why movement within security zones is necessary.

Chart 18450

LNM: 28/22

WASHINGTON – PUGET SOUND – SEATTLE TO BREMERTON – ELLIOTT BAY - 2022 Fleet Week Maritime Festival Pier 66 Safety Zone

The Coast Guard will enforce the Seafair Fleet Week Maritime Festival's Pier 66 Safety Zone, which includes all waters within 100 yards of pier 66 and 62, Elliott Bay, Seattle, to ensure safety during the annual parade of ships and aerial demonstrations for Fleet Week. The Safety Zone will be enforced starting thirty minutes prior to, during, and continuing until thirty minutes after the annual parade of ships and aerial demonstrations occurring on 01 Aug 2022. No entry into, transiting through, mooring, or anchoring within the zone is permitted unless authorized by the Captain of the Port by contacting the on-scene Coast Guard patrol craft on VHF-FM CH 13 or CH 16, or the Coast Guard Sector Puget Sound Joint Harbor Operations Center (JHOC) via telephone at (206) 217-6002.

Chart 18450

LNM: 28/22

WASHINGTON – PUGET SOUND – SEATTLE TO BREMERTON – ELLIOT BAY – Tribal Fisheries

The Muckleshoot Tribe will conduct fishing operations for their chinook salmon fishing season in catch area 10A (Elliott Bay east of a line drawn from Pier 91 to Duwamish Head Light (LLNR 16910), and catch area 80B (the Duwamish River up to the 1st Ave South Highway 99 Twin Bridges). Fishing will occur based upon the following schedule:

In Elliott Bay:

2000 on Wednesday 20 Jul to 0800 on Thursday 21 Jul 2022,
2000 on Wednesday 27 Jul to 0800 on Thursday 28 Jul 2022,
2000 on Wednesday 03 Aug to 0800 on Thursday 04 Aug 2022

In Elliot Bay and on the Duwamish River:

2000 on Wednesday 10 Aug to 0800 on Thursday 11 Aug 2022
2000 on Wednesday 17 Aug to 0800 on Thursday 18 Aug 2022

These fisheries are expected to cause significant congestion on the waterway, and mariners are advised to use caution while transiting the area. For more information, contact Coast Guard Sector Puget Sound Waterways at (206) 217-6051 or the Muckleshoot Tribal Enforcement at (253)

876-2927.

Chart 18450

LNLM: 28/22

WASHINGTON – PUGET SOUND – SEATTLE TO BREMERTON – DUWAMISH WATERWAY – Bridge deviation

The Coast Guard intends to approve a temporary deviation to the operating schedule for the BNSF Duwamish Railroad Bridge (LLNR 16870.3) across the Duwamish Waterway, mile 0.4, in Seattle, WA. The period for this temporary draw closure will be from 0800 to Noon (1200) on 04 and 05 Oct 2022. This deviation supports equipment upgrades for the draw span. The deviation will authorize the subject bridge to not open the span to marine vessels. Vessels able to pass through the subject bridge in the closed-to-navigation position may do so at any time. The Duwamish Railroad Bridge provides 8 ft. of vertical clearance in the closed-to-navigation position; vertical clearance is referenced to mean high-water elevation. No alternate route is available on the Duwamish Waterway. In accordance with 33 CFR 117.35(e), the drawbridge must return to its regular operating schedule immediately at the end of the effective period of this temporary deviation. For additional information contact Travis Woodley at (682) 978-3311. If any mariner cannot support the dates and times for this temporary deviation, please submit an objection to d13-smb-d13-bridges@uscg.mil by 05 Aug 2022.

Chart 18450

LNLM: 28/22

WASHINGTON – PUGET SOUND – SEATTLE TO BREMERTON – DUWAMISH WATERWAY – Harbor Island dock demolition

Pacific Pile and Marine will begin Phase 2 of King County's Harbor Island Dock Demolition Project that will run from 16 Jul – 05 Sep 2022, except for a planned shutdown from 07 – 20 Aug during the negotiated tribal fish window. Pacific Pile and Marine will be performing marine construction demolition activities at the 100-year-old derelict dock site located at 3235 16th Ave. SW Seattle, WA, which is directly across the Duwamish Waterway from Terminal 5. Work hours will be from 0600 to 1800, Monday thru Sunday. Pacific Pile and Marine's spud barge Web will be loaded with an excavator to loft long timber piles out of the water. The KP#1 and KP#4 material barges will be moored alongside and will remain onsite unless they are being moved upriver at the LaFarge Facility. All barges will have all four corners marked with steady burn white lights. Mariners are requested to keep at least a 200ft clear distance. The barge Web and tugs will monitor VHF channel 16. For additional information, please contact Matthew Miller at (206) 715-7466 or email at MatthewM@PacificPile.com.

Chart 18450

LNLM: 28/22

WASHINGTON – PUGET SOUND – SEATTLE TO BREMERTON – SINCLAIR INLET – Helicopter and Boat Operations

The U.S. Army will be conducting helicopter operations in Sinclair Inlet across from U.S. Naval Base Bremerton on 04 and 05 Aug 2022. The helicopters will be launching personnel and boats from low flying aircraft. This military exercise will be centered on approximate position 47-32-51.5 N, 122-38-37.0 W, from 1030 to 1130 on both 04 – 05 Aug. The Coast Guard will be enforcing a 500-yard safety zone around that location, and all mariners are advised to transit the area with caution and comply with on scene enforcement vessels. The Coast Guard vessels on scene can be contacted on VHF-FM channel 16. For more information regarding this exercise please contact Sector Puget Sound Waterways Management at (206) 217-6051, or email at SectorPugetSoundWWM@uscg.mil.

Charts: 18449 18452

LNLM: 28/22

WASHINGTON – PUGET SOUND – SARATOGA PASSAGE – CRESCENT HARBOR – Oceanographic survey operations

The US Naval Oceanographic Office will commence an oceanographic survey within Crescent Harbor and Saratoga Passage using unmanned underwater vehicles from 19 – 26 Jul 2022, daily from 0800-1500. The NAVOCEANO Survey Vessel will be monitoring VHF-FM channels 13 and 16, and will use lights per the Navigational Rules of the Road. Mariners are requested to use caution, minimize wake, and maintain a 200-yard distance from the survey vessel. For additional information, contact the US Naval Oceanographic Office at (727) 417-5750.

Charts: 18428 18441

LNLM: 28/22

WASHINGTON – PUGET SOUND – SEATTLE TO BREMERTON – DUWAMISH WATERWAY – Spokane Street Bridge deviation

The Coast Guard has approved a temporary deviation for the Spokane Street Bridge (LLNR 16870.1) across the Duwamish Waterway, mile 0.3, in Seattle, WA, from 24 Jun – 30 Sep 2022. This deviation will support multiple events to make repairs and upgrades for the subject bridge. The work will begin with assembling scaffolding, and followed by installing scaffolding with the use of a barge and UBIT truck. A 60 ft wide X 200 ft long crane barge will be used during the first two weeks of June lifting scaffolding up to the bridge and during the last two weeks of August to remove the scaffolding. A second service barge will be on site but outside of the channel. Two service tugs will be on site as well. The tugs and barges can be hailed using VHF channel 13. 82 of the 250 feet of horizontal clearance will be reduced while installing and removing scaffolding on the east and west side. After the platform has been installed, a total of 24 feet (11 ft west side and 13 ft east side) of horizontal clearance will be reduced. Scaffolding will be lighted with amber flashing lights. The vertical clearance will be reduced from 44 feet to 27 feet on the sides of the Spokane Street Bridge. The center vertical clearance will not be reduced during this deviation period. Vertical and horizontal clearances are referenced to mean high-water elevation. The horizontal and vertical clearances will only be impacted while the bridge is in the closed-to-navigation position. Mariners transiting the construction area are advised to not put out any wake, and fall hazards will be present. Vessels able to pass through the subject bridge in the closed-to-navigation position may do so at any time. No alternate route is available on the Duwamish Waterway.

The following are the deviation dates and times:

2300 on 24 Jun 22 – 0700 on 25 Jun 22 (cannot open for emergency response);

2300 on 08 Jul 22 – 0700 on 09 Jul 22 (cannot open for emergency response);

2300 on 10 Jul 22 – 0700 on 23 Sep 22 (two hour minimum notice for bridge opening, 20 minute notice for emergency response);

2300 on 23 Sep 22 – 0700 on 24 Sep 22 (cannot open for emergency response);

2300 on 29 Sep 22 – 0700 on 30 Sep 22 (cannot open for emergency response);

For more information on the bridge repairs, contact Adam Dour, Kraemer North America, at (206) 620-0630 or adour@KraemerNA.com.

The Captain of the Port will implement a Safety Zone for the Duwamish waterway for the nighttime closure times listed above, and vessels will not

be able to enter the Safety Zone without permission. For more information on the Safety Zone or to request permission, contact Coast Guard Sector Puget Sound Joint Harbor Operations Center (JHOC) via telephone at (206) 217-6002.

Chart 18450

LNLM: 27/22

OREGON – WASHINGTON – IDAHO – US Coast Guard Navigation Center website transition

The Coast Guard Navigation Center (NAVCEN) has completed their website transition to a new, enhanced version. As part of this transition, URLs have been updated across the site including URLs linked to PDFs. Legacy site URLs will no longer function, however, they automatically direct users to the new NAVCEN home page, allowing users to further navigate to their preferred page. Users are encouraged to update any shortcuts they use to the new URLs. Below are a few of the new URLs listed for your convenience. As a reminder, these are top level URLs and they may not include all the additional links or District-specific shortcuts that you use:

Broadcast Notices to Mariners (BNMs)

Updated URL: <https://www.navcen.uscg.gov/broadcast-notice-to-mariners>

Local Notices to Mariners (LNMs)

Updated URL: <https://www.navcen.uscg.gov/local-notice-to-mariners-by-cg-district>

Light Lists Annual Publication

Updated URL: <https://www.navcen.uscg.gov/light-list-annual-publication>

Light List - Weekly

Updated URL: <https://www.navcen.uscg.gov/weekly-light-lists>

Light List - Corrections

Updated URL: <https://www.navcen.uscg.gov/light-list-summary-of-corrections>

Questions or concerns may be directed to the NAVCEN using this email address: NAVCENWebTEAM@uscg.mil.

LNLM: 26/22

OREGON – WASHINGTON – SAN FRANCISCO TO CAPE FLATTERY – NOAA and Saildrone joint ocean survey operations

Saildrone Inc. is conducting oceanographic and fisheries acoustic surveys in collaboration with NOAA on the west coast of the United States from 01 Jul through 15 Oct 2022. The survey will be conducted by two (2) Uncrewed Surface Vehicles (USVs), called "saildrones", each 23 ft in length, 16 ft tall, orange in color with a white all-round light on the mast and marked "SAILDRONE". The two Saildrones will be deployed from Newport, OR on or about 01 Jul. Both vehicles are uncrewed, wind and solar powered and will have limited maneuverability during survey operations. Mariners are requested to transit areas with caution and to remain greater than 500 meters away from the research equipment. Questions regarding saildrone operations should be directed to Saildrone Mission Control, missioncontrol@saildrone.com or (510) 722-6070. Enclosure (7) of this Local Notice to Mariners provides a photo and a description of the Saildrone.

Chart 18007

LNLM: 26/22

WASHINGTON – LAKE WASHINGTON SHIP CANAL – UNION BAY REACH – Bridge deviation

The Coast Guard has approved a temporary deviation from the normal operating schedule that governs the Montlake Street Bridge (LLNR 18240) across the Lake Washington Ship Canal, mile 5.2. The Montlake Bridge need not open the draw for marine vessels during heavy road traffic for the University of Washington football games on the following dates and times:

- 03 Sep 2022, 1700 to 1930 and 2200 to 0100;
- 10 Sep 2022, 1030 to 1300 and 1600 to 1800;
- 17 Sep 2022, 1400 to 1630 and 1930 to 2200;
- 24 Sep 2022, TBA at a later date;
- 15 Oct 2022, TBA at a later date;
- 04 Nov 2022, 1700 to 1930 and 2230 to 0100;
- 19 Nov 2022, TBA at a later date.

The deviation is necessary to accommodate vehicular traffic attending football games at Husky Stadium at the University of Washington in Seattle, Washington. This deviation will allow the Montlake Bridge to remain in the closed-to-navigation position before and after each game. The Montlake Bridge in the closed-to-navigation position provides 30 feet of vertical clearance throughout the navigation channel, and 46 feet of vertical clearance throughout the center 60 feet of the bridge; vertical clearance references to the Mean Water Level of Lake Washington. Vessels which do not require a bridge opening may continue to transit beneath this bridge during the closure. The bridge will be required to open, if needed, for vessels engaged in emergency response operations during this closure period. The Coast Guard will publish any updates or changes to this operating schedule in future LNM publications, once game times are announced. For more information on these events contact Colleen Kelly at kellyc@wsdot.wa.gov.

Chart 18447

LNLM: 26/22

IDAHO – CLEARWATER RIVER – Geotechnical survey operations

The Idaho Transportation Department has hired Horrocks Engineers to conduct geotechnical survey operations in the vicinity of the US-95 Spalding Bridge across the Clearwater River (RM 10.5) and the US-12 Arrow Bridge (RM 15.1) near Spalding, Idaho. The operations include underwater drilling off a barge located within 100 feet of the bridge. Operations will run seven days a week, from 0700-1700, starting on 01 Jul to 31 Oct 2022. The drilling is performed on a 40'x20' non powered barge with a 20' Jet boat supporting. The barge will be anchored on location by anchors off all four corners. There will be an 18" orange buoy ball attached to each anchor line designating where the lines are below the surface. The barge will show Restricted in Ability to Manuever dayshapes (Ball/ Diamond/Ball) and lights (Red/White/Red), in addition to white lights on all corners. The on-site crew can be reached by cell phone at (509) 844-1952. Mariners are requested to keep a minimum distance of 100' from the barge and tender boat. For more information, contact Horrocks Engineering, Mike McConnell, (208) 577-1642.

LNLM: 26/22

OREGON – WASHINGTON – U.S. Coast Pilot 10, 3rd Edition release

U.S. Coast Pilot 10, Pacific Coast: Oregon, Washington, Hawaii and Pacific Islands, 3rd Edition, 2022, has been issued and is ready for free download and weekly updates at www.nauticalcharts.noaa.gov/publications/coast-pilot/index.html. The 2022 Edition cancels the preceding 2021 Edition, and incorporates all previous corrections. Only Print-on-Demand (POD) bound copies are available for purchase; visit www.nauticalcharts.noaa.gov/publications/print-agents.html#coast-pilot.

LNM: 25/22

OREGON – PACIFIC OCEAN TO HARRINGTON POINT – Old Youngs Bay Highway Bridge and Lewis & Clark River Highway Bridge Special Notice

Bridge touch-up painting will occur from 11 Jul 22 to 30 Sep 22 on the lift/bascule spans of the Old Youngs Bay Bridge (LLNR 14682) Mile 2.4 and Lewis & Clark River Bridge (LLNR 14706) Mile 1.0. The work will take place from man-lifts staged on a barge that will be positioned under the lift spans. Working hours are Monday through Friday 0700 to 1700 PM. The barge will be positioned under the lifts spans 24 hours a day, however if the barge is partially obstructing navigation it can be moved with a 1 hour notice. Mariners are advised to use caution while transiting the work area. The barge will be marked with a white light. The bridges operating schedule will not be effected by this work and will continue to operate in accordance with CFR 117.899 and CFR 117.899c. Sketches detailing the barge placements are shown as enclosure (6) of this LNM. For additional information contact Jim Gries at (503) 580-0569.

Chart 18521

LNM: 25/22

COLUMBIA RIVER – BONNEVILLE TO THE DALLES – LITTLE WHITE SALMON RIVER – BNSF Railroad Bridge pile removal

The Burlington Northern Santa Fe Railroad Company (BNSF) Bridge number 66.4 crosses the Little White Salmon River at the confluence of Drano Lake and the Columbia River, at river mile 0.0 of Drano Lake / Little White Salmon River, in Skamania County, WA; at 45-42-40.5N 121-38-54.7W. Construction of a new bridge at this location was completed in 2021. Work to remove four old in-water piles from the former bridge at this location is still in-progress. These piles are within the approach to the navigation channel of the new bridge from the Columbia River side, and are submerged at the following depths below ordinary high water: 4.2', 15.9', 16.3' and 6.0'. To warn mariners, two temporary buoys are now in place at the approximate location of the two underwater piles that are closest to the water surface (4.2' and 6.0'). Mariners should exercise caution when navigating in this area. Work to remove the remaining sections of these old piles is planned to be completed between November 2022 and February 2023. A diagram showing the location of the two temporary buoys and a photo showing a typical buoy is provided in Enclosure (4) of this LNM. Questions or comments regarding this notice may be sent via email to: D13-SMB-D13-BRIDGES@uscg.mil.

Chart 18532

LNM: 25/22

WASHINGTON – APPROACHES TO ADMIRALTY INLET – Sequim Bay scientific sensor deployment (Revised from LNM 11/22)

The Pacific Northwest National Laboratory (PNNL) will be deploying and retrieving submerged scientific equipment in the entrance channel to Sequim Bay, Washington for 4 weeks between 21 Jun and 30 Jul 2022. The submerged scientific equipment will be located at approximate position 48-04-53 N, 123-02-30 W. There will be no surface marker buoys on the equipment, but the equipment extends approximately 10 feet above the seafloor, leaving at least 9 feet of water over the equipment at all times. The research vessels DESDEMONA or STRAIT SCIENCE may be on scene during the deployment and retrieval. The vessels may be hailed on VHF-FM channel 16. For additional information, contact PNNL Marine Sciences Laboratory, John Vavrinc, at (360) 681-3665 or email john.vavrinc@pnnl.gov.

Chart 18471

LNM: 25/22

WASHINGTON – PUGET SOUND – SEATTLE TO BREMERTON – NAVAL BASE KITSAP – Sand placement over Moorage G

American Construction will be conducting sand placement operations over Moorage G at US Naval Base Kitsap, Bremerton, WA centered in approximate position 47-33-08.2N 122-39-24.7W, commencing 16 Jul 22 through 30 Sep 22. The hours of these operations will be up to 12 hours per day, Monday through Friday. The dredge DB Mukilteo will be on site and may be contacted on VHF-FM channel 16. For additional information contact Aaron McMahon at aaronm@americanconstrco.com or cell phone (253) 350-1670.

Charts: 18449 18452

LNM: 25/22

WASHINGTON – PUGET SOUND – EVERETT HARBOR – SNOHOMISH RIVER – Ebey Slough Bridge notice

The Coast Guard intends to approve a temporary deviation from the operating schedule that governs the BNSF RR Bridge 38.3 (LLNR 18594.6) across Ebey Slough (Snohomish River), mile 1.5 at Marysville, Washington. This closure period will be from 0700 on 01 Aug 22 through 0700 on 01 Sep 22. Scaffolding will be install for containment on half of the span, and will reduce the vertical clearance up to 5 feet. Half of the span's vertical clearance will be available for mariners to navigation under the bridge. The scaffolding will be lighted with amber flashing lights. Mariners be aware that Bridge 38.3 provides 5 feet of vertical clearance in the closed-to-navigation position above high water, and at the lowest tides, up to 16 feet of vertical clearance may be available. When containment is installed on half of the span, mariners will not be able to navigate under the bridge at high tide through high slack. At low tide the vertical clearance will be reduced to about 11 feet with containment. Vessels able to pass through the bridge in the closed-to-navigation position may do so at any time. Bridge 38.3 operates in accordance with 33 CFR 117.1059 (g) and states in part "During freshets, a draw tender shall be in constant attendance, and the draw shall open on signal when so ordered by the District Commander." This deviation will also negate a draw tender to be in attendance during freshets. Due to a high amount of Spring rainfall, mariners be aware of river debris collecting at the bridge before BNSF can remove the debris due the bridge not able to open. If any mariner cannot support this deviation, submit objections to d13-smb-d13-bridges@uscg.mil by 13 Jul 22.

Chart 18444

LNM: 25/22

COLUMBIA RIVER – LAKE CELILO – Bridge inspection

WSDOT will be performing an inspection of the Biggs Maryhill Highway Bridge (LLNR 12333) across the Columbia River at river mile 209.2 between the hours of 0700 to 1700 daily on 11 – 15 Jul. The bridge will be inspected with two under-bridge inspection trucks (UBITs) from top of bridge deck on highway SR-97. There is no fixed impact to the navigational clearance from this operation. The UBIT will reduce the clearance about 10

ft. while buckets are under the bridge, however the UBIT will promptly give way to tall marine vessels. UBITs have a flashing amber light mounted to the bottom of each bucket. For more information, contact Tad Kendrick, at (360) 528-9215 or (360) 259-7368 or email at kendrit@wsdot.wa.gov.

Chart 18533

LNM: 24/22

WASHINGTON – PUGET SOUND – HOOD CANAL – Research sensor deployments

NOAA's Northwest Fisheries Science Center will be deploying four acoustic receivers in the Hood Canal between South Point on the west and Lofall on the east, approximately 3 NM south of the Hood Canal Bridge on 27 Jul 2022 between the hours of 1000 and 1600. Receivers will listen for and record detections of salmonids implanted with acoustic transmitters. Deployment locations are as follows:

- (1) 47-49-43.464 N, 122-41-05.100 W
- (2) 47-49-28.848 N, 122-40-48.036 W
- (3) 47-49-10.992 N, 122-40-31.008 W
- (4) 47-48-52.344 N, 122-40-14.772 W

Moorings will remain in place through November. Mariners are requested to avoid disturbing the seafloor in these areas so as not to dislodge or damage the equipment. Deployment of the sensors will occur from the R/V Noctiluca, which will monitor VHF-FM channels 16 and 68. Mariners can contact the Chief Scientist at (206) 949-7723.

Charts: 18441 18458

LNM: 24/22

WASHINGTON – LAKE WASHINGTON SHIP CANAL – UNION BAY REACH – Bridge construction update (Revised from LNM 28/21)

American Bridge Company will be conducting hoisting operations for new bridge construction at the West Approach Bridge South of the SR520 Evergreen Point Highway Bridge (LLRN 18340) from 25 Jul – 16 Sep 2022. During this time period, the active work zone will include both corridors of the west navigation channel between 0400 – 1300 daily, closing both corridors of the west navigation channel to all vessel traffic. After 1300, corridor B will be open for vessels to transit, while corridor A will have periodic closures based upon construction activities. During Seafair week, Thursday 04 Aug – Sunday 07 Aug, construction will pause and both corridors of the west navigation channel will remain open. Mariners are advised to transit with caution when navigating near the project area and that no boaters are permitted within the active work zone at any time. In addition, reduced speed and/or minimal wake is requested when transiting the navigation channels. The east navigation channel of the SR520 Highway Bridge will remain open to vessels at all times during this construction phase. A graphic of the operating area and the channel locations is included as Enclosure (5) of this LNM. For more information, contact Eoin Duffy at (914) 263-5875 or email at eduffy@americanbridge.net.

Chart 18447

LNM: 24/22

SECTION II - DISCREPANCIES

This section lists all reported and corrected discrepancies related to Aids to Navigation in this edition. A discrepancy is a change in the status of an aid to navigation that differs from what is published or charted.

DISCREPANCIES (FEDERAL AIDS)

LLNR	Aid Name	Status	Chart No.	BNM Ref.	LNM St	LNM End
733	NOAA Environmental Lighted Buoy 46041	MISSING	18500	0174-22	08/22	
756	Strait of Juan De Fuca Traffic Separation Lane Lighted Buoy JA	MISSING	18485	0828-20	47/20	
765.5	NOAA Environmental Lighted Buoy 46005	LT EXT	18007	0197-20	08/20	
8725	Coquille River Buoy 15	OFF STA	18588	0500-22	28/22	
10215	Miller Sands Dike Light 5	DAYMK IMCH	18521	0022-22	02/22	
10475	Westport Dike Light 58	LT EXT/STRUCT DMGD	18523	0190-22	09/22	
10715	Cleaveland Dike Light 3	LT EXT	18524	0392-22	22/22	
11165	Willow Dike Light 26	LT EXT	18525	0436-22	24/22	
11308	Airport Bar Range Rear Light	LT EXT	18531	0441-22	25/22	
11430	Fisher Quarry Channel Range Front Light	LT IMCH	18531	0289-22	17/22	
11465	Government Island Range Front Light	REDUCED INT	18531	0325-22	19/22	
11490	Lady Island Range Front Light	LT EXT	18531	0440-22	25/22	
12980	Lake Wallula West Channel Junction Light W	STRUCT DEST/TRLB	18542	0208-20	09/20	
13475	Lake Sacajawea Buoy 58	OFF STA	18545	0422-22	24/22	
14420	Baker Bay West Channel Entrance Jetty Light 2	LT IMCH/STRUCT DMGD	18521	0633-21	38/21	

14835	Sauvie Island Junction Light	STRUCT DEST/TRLB	18524	0930-21	51/21
15120	Rock Island Channel Buoy 13	MISSING		0464-22	26/22
16136	Strait of Juan De Fuca Traffic Separation Lane Lighted Buoy JA	MISSING	18485	0828-20	47/20
17360	Nisqually Flats Light 3	STRUCT DEST/TRLB	18448	0404-21	24/21
18710	Oak Harbor Light 11	STRUCT DEST/TRLB	18428	0652-21	39/21

DISCREPANCIES (FEDERAL AIDS) CORRECTED

LLNR	Aid Name	Status	Chart No.	BNM Ref.	LNM St	LNM End
10965	Martin Island Bluff Lighted Buoy 60	RELIGHTED	18524	0496-22	27/22	28/22
11655	Fashion Reef Buoy 75	WATCHING PROPERLY	18531	0497-22	25/22	28/22
11900	Little White Salmon Upper Range Rear Light	RELIGHTED	18532	None	28/22	28/22
12145	The Dalles Dam Buoy C	RESET ON STATION	18533	None	28/22	28/22
16405	Puget Sound Traffic Separation Lane Lighted Buoy SA	WATCHING PROPERLY	18471	0499-22	21/22	28/22

DISCREPANCIES (PRIVATE AIDS)

LLNR	Aid Name	Status	Chart No.	BNM Ref.	LNM St	LNM End
10811	Lewis And Clark Bridge Approach Buoy 1	OFF STA	18524	0390-22	22/22	
10813	Lewis And Clark Bridge Approach Buoy 3	OFF STA	18524	0391-22	22/22	
10814	Lewis And Clark Bridge Approach Buoy 4	OFF STA	18524	0413-22	24/22	
10928	Sandy Island Anchorage Lighted Buoy "S"	LT EXT	18524	0225-22	12/22	
11207	Lower Vancouver Anchorage Lighted Buoy V	LT EXT	18525	0147-22	06/22	
11247	Hayden Island Water Monitoring Lighted Buoy A	MISSING	18526	0413-21	25/21	

DISCREPANCIES (PRIVATE AIDS) CORRECTED

LLNR	Aid Name	Status	Chart No.	BNM Ref.	LNM St	LNM End
651.3	Pacwave South Spotter Lighted Buoy N	RESET ON STATION	18580	0484-22	26/22	28/22

PLATFORM DISCREPANCIES

Name	Status	Position	BNM Ref.	LNM St	LNM End
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None

PLATFORM DISCREPANCIES CORRECTED

Name	Status	Position	BNM Ref.	LNM St	LNM End
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None

SECTION III - TEMPORARY CHANGES and TEMPORARY CHANGES CORRECTED

This section contains temporary changes and corrections to Aids to Navigation for this edition. When charted aids are temporarily relocated for dredging, testing, evaluation, or marking an obstruction, a temporary correction shall be listed in Section IV giving the new position.

TEMPORARY CHANGES

LLNR	Aid Name	Status	Chart No.	BNM Ref.	LNM St	LNM End
9285	Winchester Bay Harbor Entrance Daybeacon 1	TRUB	18584	0353-21	21/21	
10295	Brookfield Point Lighted Buoy 19	RELOCATED FOR DREDGING	18523	0486-22	28/22	
10300	Brookfield Point Lighted Buoy 21	RELOCATED FOR DREDGING	18523	0487-22	28/22	

10816	Cowlitz River Lighted Buoy 25	DISCONTINUED FOR DREDGING	18524	0427-22	24/22
12980	Lake Wallula West Channel Junction Light W	TRLB	18542	0214-20	10/20
14835	Sauvie Island Junction Light	TRLB	18524	0936-21	51/21
17360	Nisqually Flats Light 3	TRLB	18448	0409-21	24/21
18050	Orchard Rocks Fish Pen Lights (3)	DISCONTINUED	18449	0894-21	50/21
18710	Oak Harbor Light 11	TRLB	18428	0287-22	17/22

TEMPORARY CHANGES CORRECTED

LLNR	Aid Name	Status	Chart No.	BNM Ref.	LNM St	LNM End
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None

PLATFORM TEMPORARY CHANGES

Name	Status	Position	BNM Ref.	LNM St	LNM End
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None

PLATFORM TEMPORARY CHANGES CORRECTED

Name	Status	Position	BNM Ref.	LNM St	LNM End
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None

SECTION IV - CHART CORRECTIONS

This section contains corrections to federally and privately maintained Aids to Navigation, as well as NOS corrections.

This section contains corrective actions affecting chart(s). Corrections appear numerically by chart number, and pertain to that chart only. It is up to the mariner to decide which chart(s) are to be corrected. The following example explains individual elements of a typical chart correction.

Chart Number	Chart Edition	Edition Date	Last Local Notice to Mariners	Horizontal Datum Reference	Source of Correction	Current Local Notice to Mariners
12327	91st Ed.	19-APR-97	Last LNM: 26/97	NAD 83		27/97
Chart Title: NY-NJ-NEW YORK HARBOR - RARITAN RIVER						
Main Panel 2245 NEW YORK HARBOR					CGD01	
(Temp)	ADD	NATIONAL DOCK CHANNEL BUOY 3			at 40-41-09.001N	074-02-48.001W
	Green can					
Corrective Action	Object of Corrective Action				Position	

(Temp) indicates that the chart correction action is temporary in nature. Courses and bearings are given in degrees clockwise from 000 true. Bearings of light sectors are toward the light from seaward. The nominal range of lights is expressed in nautical miles (NM) unless otherwise noted.

501	13th Ed.	01-JUN-09	Last LNM: 29/20	NAD 83		28/22
<i>Chart Title: North Pacific Ocean West Coast Of North America Mexican Border To Dixon Entrance</i>						
Main Panel 1650 MEXICAN BORDER TO DIXON ENTRANCE. Page/Side: N/A						
RELOCATE	DART Tsunami Warning Lighted Buoy 46404				CGD13 from 45-52-21.000N to 45-51-47.000N	128-45-26.000W 128-45-38.000W
RELOCATE	DART Tsunami Warning Lighted Buoy 46407				CGD13 from 42-42-18.000N to 42-42-54.000N	128-50-06.000W 128-49-30.000W
530	35th Ed.	01-DEC-15	Last LNM: 26/22	NAD 83		28/22
<i>Chart Title: North America West Coast San Diego to Aleutian Islands and Hawaiian Islands</i>						
Main Panel 2405 SAN DIEGO TO ALEUTIAN ISLANDS AND HAWAIIAN ISLANDS. Page/Side: A						
RELOCATE	DART Tsunami Warning Lighted Buoy 46404				CGD13 from 45-52-21.000N to 45-51-47.000N	128-45-26.000W 128-45-38.000W
RELOCATE	DART Tsunami Warning Lighted Buoy 46407				CGD13 from 42-42-18.000N to 42-42-54.000N	128-50-06.000W 128-49-30.000W

18007	33rd Ed.	01-FEB-09	Last LNM: 23/21	NAD 83		28/22
<i>ChartTitle: San Francisco to Cape Flattery</i>						
Main Panel 1652 SAN FRANCISCO TO CAPE FLATTERY. Page/Side: N/A						
RELOCATE	DART Tsunami Warning Lighted Buoy 46404				CGD13 from 45-52-21.000N to 45-51-47.000N	128-45-26.000W 128-45-38.000W
RELOCATE	DART Tsunami Warning Lighted Buoy 46407				CGD13 from 42-42-18.000N to 42-42-54.000N	128-50-06.000W 128-49-30.000W
18429	11th Ed.	01-MAY-14	Last LNM: 39/17	NAD 83		28/22
<i>ChartTitle: Rosario Strait-southern part</i>						
Main Panel 1682 ROSARIO STRAIT SOUTH PART. Page/Side: N/A						
LAST EDITION	No new editions of chart 18429 will be published. It will be canceled on 05-Oct-22. Comparable or larger scale Electronic Navigational Chart (ENC) coverage is available. See "Cancellation of NOAA Paper and Raster Nautical Charts" in Section I of this LNM for details. A list of all canceled NOAA charts is at https://www.charts.noaa.gov/MCD/Dole.shtml .				NOS --	--
18430	9th Ed.	01-JUL-10	Last LNM: 39/17	NAD 83		28/22
<i>ChartTitle: Rosario Strait-northern part</i>						
Main Panel 1683 ROSARIO STRAIT NORTH PART. Page/Side: N/A						
LAST EDITION	No new editions of chart 18430 will be published. It will be canceled on 05-Oct-22. Comparable or larger scale Electronic Navigational Chart (ENC) coverage is available. See "Cancellation of NOAA Paper and Raster Nautical Charts" in Section I of this LNM for details. A list of all canceled NOAA charts is at https://www.charts.noaa.gov/MCD/Dole.shtml .				NOS --	--
18432	7th Ed.	01-SEP-13	Last LNM: 44/13	NAD 83		28/22
<i>ChartTitle: Boundary Pass</i>						
Main Panel 1685 BOUNDARY PASS. Page/Side: N/A						
LAST EDITION	No new editions of chart 18432 will be published. It will be canceled on 05-Oct-22. Comparable or larger scale Electronic Navigational Chart (ENC) coverage is available. See "Cancellation of NOAA Paper and Raster Nautical Charts" in Section I of this LNM for details. A list of all canceled NOAA charts is at https://www.charts.noaa.gov/MCD/Dole.shtml .				NOS --	--
18433	6th Ed.	01-APR-05	Last LNM: 42/17	NAD 83		28/22
<i>ChartTitle: Haro-Strait-Middle Bank to Stuart Island</i>						
Main Panel 1686 HARO STRAIT MIDDLE BANK TO STUART ISLAND. Page/Side: N/A						
LAST EDITION	No new editions of chart 18433 will be published. It will be canceled on 05-Oct-22. Comparable or larger scale Electronic Navigational Chart (ENC) coverage is available. See "Cancellation of NOAA Paper and Raster Nautical Charts" in Section I of this LNM for details. A list of all canceled NOAA charts is at https://www.charts.noaa.gov/MCD/Dole.shtml .				NOS --	--
18434	7th Ed.	01-APR-08	Last LNM: 40/17	NAD 83		28/22
<i>ChartTitle: San Juan Channel</i>						
Main Panel 1941 SAN JUAN CHANNEL. Page/Side: N/A						
LAST EDITION	No new editions of chart 18434 will be published. It will be canceled on 05-Oct-22. Comparable or larger scale Electronic Navigational Chart (ENC) coverage is available. See "Cancellation of NOAA Paper and Raster Nautical Charts" in Section I of this LNM for details. A list of all canceled NOAA charts is at https://www.charts.noaa.gov/MCD/Dole.shtml .				NOS --	--
18477	6th Ed.	01-SEP-18	Last LNM: 09/17	NAD 83		28/22
<i>ChartTitle: Puget Sound-Entrance to Hood Canal</i>						
Main Panel 1938 PUGET SOUND ENTRANCE TO HOOD CANAL - -. Page/Side: -						
LAST EDITION	No new editions of chart 18477 will be published. It will be canceled on 05-Oct-22. Comparable or larger scale Electronic Navigational Chart (ENC) coverage is available. See "Cancellation of NOAA Paper and Raster Nautical Charts" in Section I of this LNM for details. A list of all canceled NOAA charts is at https://www.charts.noaa.gov/MCD/Dole.shtml .				NOS --	--
18504	66th Ed.	01-JUL-06	Last LNM: 29/17	NAD 83		28/22
<i>ChartTitle: Willapa Bay;Toke Pt.</i>						

LAST EDITION No new editions of chart 18504 will be published. It will be canceled on 05-Oct-22. Comparable or larger scale Electronic Navigational Chart (ENC) coverage is available. See "Cancellation of NOAA Paper and Raster Nautical Charts" in Section I of this LNM for details. A list of all canceled NOAA charts is at <https://www.charts.noaa.gov/MCD/Dole.shtml>.

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SECTION V - ADVANCE NOTICES

This section contains advance notice of approved projects, changes to aids to navigation, or upcoming temporary changes such as dredging, etc. Mariners are advised to use caution while transiting these areas.

SUMMARY OF ADVANCED APPROVED PROJECTS

Approved Project(s)
None

Project Date

Ref. LNM

Advance Notice(s)

COLUMBIA RIVER - WILLAPA BAY - PUGET SOUND – Replacement of incandescent Lights with LED lanterns

The U.S. Coast Guard is replacing the following incandescent lantern with LED lanterns at sites on the Columbia River, Willapa Bay, Bellingham Channel and Eagle Harbor. These current incandescent lanterns have a single or dual beam of high intensity, with an all-around light of reduced intensity. The change to a LED lantern will remove the high intensity beams, but significantly increase the intensity of the all-around light. The sites are:

Svensen Island Light 12 (LLNR 14775) the high intensity beam will be removed and the intensity of the light will be increased.
South Willapa Bay Light 7 (LLNR 15410) the high intensity beam will be removed and the intensity of the light will be increased.
Eagle Harbor Light 4 (LLNR 18010) the high intensity beam will be removed and the intensity of the light will be increased.
Bellingham Channel Light 5 (LLNR 19175) the high intensity beams will be removed and the intensity of the light will be increased.

The change in light characteristics will be advertised by a Broadcast Notice to Mariners and Light List corrections in the Local Notice to Mariners. Mariners are encouraged to share comments on the performance and operation of these lights as aids to navigation. All comments should be sent to the email address D13-SMB-D13-LNM@uscg.mil. Any discrepancy for these or other Aids to Navigation should continue to be reported to US Coast Guard Sector Columbia River and US Coast Guard Sector Puget Sound.

Charts: 18421 18441 18504 18523

LNM: 19/22

WASHINGTON – WILLAPA BAY - Disestablishment of Willapa Bay Lighted Buoy "C" and Buoy "D" (Revised from LNM 16/22)

The U.S. Coast Guard has permanently disestablished Willapa Bay Entrance Lighted Buoy "C" (LLNR 15186) and Willapa Bay Entrance Buoy "D" (LLNR 15167) as the constantly shifting bar at the entrance to Willapa Bay prevents these buoys from marking the navigable channel, and surf conditions make the placement, retrieval and servicing of these buoys hazardous. There are currently no plans by the US Army Corps of Engineers to dredge or maintain the entrance channel into Willapa Bay. Virtual AIS (V-AIS) signals will be established in place of these buoys. The projected approximate locations are:

Willapa Bay V-AIS "A", a special purpose AIS marking good water at 46-44-18.4N 124-06-21.9W
Willapa Bay V-AIS "B", a special purpose AIS marking good water at 46-43-34.4N 124-03-52.7W

Mariners are encouraged to share comments on the performance and operation of aids to navigation. All comments should be sent to the email address of D13-SMB-D13-LNM@uscg.mil. Any discrepancy for Aids to Navigation should continue to be reported to US Coast Guard Sector Columbia River.

Chart 18504

LNM: 18/22

WASHINGTON – STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA AND PUGET SOUND – Removal of RACONs on aids to navigation

The U.S. Coast Guard will be removing the RACONs from selected aids to navigation in the Strait of Juan de Fuca, Rosario Strait and Puget Sound due to the consistent failure of the signals and that they are no longer considered necessary for safe navigation of the waterways. While there is no specific timeline for the removal of this equipment, it will be coordinated with servicing and discrepancy responses. The removal of the RACONs will be announced by Broadcast Notice to Mariners and published in the Local Notice to Mariners as Chart and Light List corrections. These aids to navigation are:

Hein Bank Lighted Buoy 1 (LLNR 16362)
Rosario Strait Traffic Separation Lane Lighted Buoy "RA" (LLNR 16370)
Puget Sound Traffic Separation Lane Lighted Buoy "SF" (LLNR 16745)
Puget Sound Traffic Separation Lane Lighted Buoy "SG" (LLNR 16815)
Rosario Strait Traffic Separation Lane Lighted Buoy "C" (LLNR 19520)
Rosario Strait Traffic Separation Lane Lighted Buoy "CA" (LLNR 19535)

Puget Sound Traffic Separation Lane Lighted Buoy "SA" (LLNR 16405), the RACON has been permanently discontinued

Mariners are requested to respond in writing to the Coast Guard District office with any comments on this change at D13-SMB-D13-LNM@uscg.mil. Any discrepancy for these or other Aids to Navigation should continue to be reported to US Coast Guard Sector Puget Sound.

Charts: 18400 18421 18441 18465

LNM: 36/21

WASHINGTON – PUGET SOUND – STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA - Removal of ball topmarks from Isolated Danger Buoys

The U.S. Coast Guard will be removing the two black ball topmarks from the Isolated Danger Buoys listed below. This action is due to recurring

damage of the topmarks from weather events, and the debris has interfered with the visibility of the light signal.

Tolivia Shoal Isolated Danger Lighted Bell Buoy DTS (LLNR 17265)
Blakely Island Shoal Isolated Danger Lighted Buoy DS (LLNR 19430)
Reid Rock Lighted Isolated Danger Buoy DR (LLNR 19630)

Mariners are encouraged to share comments on the performance and operation of these lights as aids to navigation. All comments should be sent to the email address D13-SMB-D13-LNM@uscg.mil. Any discrepancy for these or other Aids to Navigation should continue to be reported to US Coast Guard Sector Puget Sound.

Charts: 18421 18448

LNM: 16/22

SECTION VI - PROPOSED CHANGES

Periodically, the Coast Guard evaluates its system of aids to navigation to determine whether the conditions for which the aids to navigation were established have changed. When changes occur, the feasibility of improving, relocating, replacing, or discontinuing aids are considered. This section contains notice(s) of non-approved, proposed projects open for comment. SPECIAL NOTE: Mariners are requested to respond in writing to the District office unless otherwise noted (see banner page for address).

PROPOSED WATERWAY PROJECTS OPEN FOR PUBLIC COMMENT

<u>Proposed Project(s)</u>	<u>Closing</u>	<u>Docket No.</u>	<u>Ref. LNM</u>
None			

Proposed Change Notice(s)

COLUMBIA RIVER – ST. HELENS TO VANCOUVER – Change in the light characteristic for Vancouver Direction Light

The lighting equipment for Vancouver Direction Light (LLNR 11210) has become obsolete and is currently failing. To facilitate the replacement of this light with a LED lantern, the characteristic of the light will change from an Isophase 6 second white light (Iso W 6s) with red and green sectors shown over an arc of 4° to an Occulting 4 second red light (Oc R 4s) shown over an arc of 3°, with an increased intensity to combat increased background lighting.

Mariners are encouraged to share comments on the performance and operation of these lights as aids to navigation. All comments should be sent to the email address D13-SMB-D13-LNM@uscg.mil. Any discrepancy for Aids to Navigation should continue to be reported to US Coast Guard Sector Columbia River.

Charts: 18525 18526

LNM: 28/22

SECTION VII - GENERAL

This section contains information of general concern to the Mariners. Mariners are advised to use caution while transiting these areas.

SUMMARY OF BRIDGE LIGHTING DISCREPANCIES AND CORRECTIONS

The summary of Bridge Lighting Discrepancies and Corrections is listed as Enclosure (1) of this Local Notice to Mariners.

LNM: 28/22

SUMMARY OF DREDGING OPERATIONS

The summary of Dredging Operations is listed as Enclosure (2) of this Local Notice to Mariners.

LNM: 28/22

SUMMARY OF MARINE EVENTS

The summary of Marine Events is listed as Enclosure (3) of this Local Notice to Mariners.

LNM: 28/22

OREGON – APPROACHES TO YAQUINA AND DEPOE BAY – Bridge construction notice (Revised from LNM 06/21)

ODOT is conducting cathodic protection upgrades and bridge concrete repairs to the Yaquina Bay Highway 101 Bridge (LLNR 9627) in Newport, OR, at Yaquina Bay mile 0.7. A low-level access walkway system has been constructed across the 4 concrete arch spans from the south bank heading north. While erected, the vertical navigation clearance will be reduced to a minimum of 16 feet at MHHW. The low level walkway system spans from the south bank to the North approx. 880 feet. This system will be functional until approximately the summer of 2024. The main navigational channel will not be impeded by the project as that section is made of steel. Mariners are requested not to loiter under the construction area due to fall hazards. For more information, contact Dan Lutze, the project superintendent, at (503) 519-5408.

The project is taking actions to prevent conflicts with birds. ODOT has contracted with the US Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) to perform bird-hazing activities with an aim to prevent nesting in certain sections of the bridge until scaffolding and containment can be installed. Hazing activities may include noise cannons, laser lights, and pyrotechnics. The activities may happen at any time of day, however, the noise cannons will primarily be used for the few hours surrounding sunset each evening. These efforts will have no effect on marine navigation. Hazing activities are expected to begin at the end of March and continue well into June. For more information on the APHIS activities, contact Steven Schultz at (541) 757-4158 or Steven.Schultz@ODOT.Oregon.gov.

Chart 18561

LNM: 12/22

OREGON – PORT OF PORTLAND - WILLAMETTE RIVER – Bridge notice

The Coast Guard has approved a temporary operating rule change that governs the Morrison Highway Bridge (LLNR 14955.5) across the Willamette River, mile 12.8 at Portland, OR. The Morrison Bridge operates in accordance with 33 CFR 117.897(c)(3)(iv). This temporary rule temporarily

OREGON – PORT OF PORTLAND - WILLAMETTE RIVER – Bridge notice

suspends the current regulatory cite regarding the Morrison Bridge, and adds a temporary paragraph 33 CFR § 117.897(c)(3)(vi) which amends the operating schedule of the Morrison Bridge. The rule change authorizes the subject bridge to open half of the draw span on signal when at least a two-hour notice has been given, or four-hour notice if a tug assist is needed from 1900 on 01 Apr 2022 through 1900 on 31 May 2023. Mariners may contact the Hawthorne Bridge operator via telephone at (503) 988-3452 or VHF radio channel 13 for an opening of the Morrison Bridge. Half of the draw will be maintained in the closed-to-navigation position to allow for preservation and painting maintenance. The rule change allows the Morrison Bridge to alternate operation of the east or west leaf span during the temporary rule period. The west span will be operational at the beginning of project and the east span will be in the closed-to-navigation position. The horizontal clearance with a full opening is 185 feet, therefore, in single leaf operations, the temporary rule change reduces the horizontal clearance to approximately 90 feet. The dates to switch operational spans will be determined later and published in the Local Notice to Mariners. This rule reasonably accommodates waterway users while reducing Multnomah County's burden to safely clear work crews for bridge openings. When the operational span is in the closed-to-navigation position, the vertical clearance is 69 feet in center and 48 feet on the side. The vertical clearance of the operational span is unlimited when in the open-to-navigation position. This regulation approval allows a containment system under the bridge that reduces the non-opening half of the bridge's vertical clearance by 5 feet from 69 feet center to 64 feet, and from 48 feet on the sides to 43 feet. All draw clearances are above the Columbia River Datum 0.0. Vessels able to pass through the bridge in the closed-to-navigation position may do so at any time. In accordance with 33 CFR 117.35(e), the bridge must return to its regular operating schedule immediately at the end of the designated time-period. For additional information on this event, contact Matt Studer at matt.d.studer@multco.us.

Chart 18526

LNM: 09/22

COLUMBIA RIVER – BONNEVILLE TO THE DALLES –SR-197 Highway Bridge notice (Revised from LNM 31/21)

ODOT is conducting a bridge deck replacement project on the SR 197 Highway Bridge (LLNR 12133) at Columbia RM 191.6 near The Dalles, OR and Dallesport WA. A work access and containment platform will be suspended beneath the bridge starting in mid-August and will be in place continuously until approximately 01 Dec 2022. While in place, the vertical navigation clearance will be reduced by approximately 3 feet to a minimum clearance of 97 feet Columbia River datum OHW. If a vessel needs the full 100 feet of vertical clearance for passage through the subject bridge, contact the ODOT Resident Engineer with no less than 12 hours of notice. For more information, or to make a request, contact ODOT Resident Engineer Brad DeHart at (541) 296-2800 or bradley.k.dehart@odot.state.or.us.

Chart 18532

LNM: 23/22

OREGON – SNAKE RIVER – Bridge notice

ODOT will be repairing the bridge that spans the Snake River in Ontario OR at river mile 372. The operations will occur seven days a week, daylight hours only, from 01 Apr to 31 Oct 2022. The bridge will be repaired using an under-bridge inspection truck (UBIT) or snooper crane that occupies approximately 10 feet of the vertical span of the bridge, work containment platforms that occupies approximately 6 feet of vertical span of the bridges, and a barge that will occupy one of the nine existing bridge spans. Mariners are advised to use caution while transiting the area. For additional information contact ODOT District 14 Project Manager, Petr Lovasik at (541) 823-4021 or (541) 709-6889 (cellular) or Petr.Lovasik@odot.state.or.us.

LNM: 06/22

OREGON – WILLAMETTE RIVER – PORTLAND TO WALNUT EDDY – Bridge construction notice (Revised from LNM 20/22)

Kiewit Construction will begin a seismic upgrade construction project on the I-205 Highway Bridge (LLNR 15078) AKA, Abernethy Bridge across the Willamette River at RM 25.6, from 20 Jun 22 to 01 Oct 25. The construction activity will take place across the entire river at the bridge. Construction personnel will be working 24 hours a day Monday through Saturday. Bridge construction work will include the installation of multiple temporary work platforms across sections of the river. All river traffic will be restricted to a temporary navigational channel with horizontal clearance of 150 feet wide and vertical clearance of 51.8 feet high at ordinary high water (OHW), or 76.0 feet high at Columbia River Datum (CRD). The temporary navigation channel will be marked with floating buoys with flashing lights to match buoy type (red nun and green can navigational buoys and white can informational buoys, each with matching color lights flashing at 4-second intervals). Crews will be using floating cranes and barges, attended by tugs throughout the site. All vessels will monitor VHF channels 13 and 16. Barges will be marked on each corner with a white light flashing at 6-second intervals. Each corner of the multiple trestles will also be marked at each corner with a white light flashing at 6-second intervals. Signage on the trestles will communicate the safe distance from the work zone. For an overview of the work site and navigation channel, see Enclosure (4) of LNM 24/22. For more information contact Kiewit Construction, Ritch Schubert, at (503) 710-2277 or email ritch.schubert@kiewit.com.

LNM: 21/22

OREGON – WILLAMETTE RIVER – EUGENE – Bridge Notice

The City of Eugene, OR, has contracted DOWL for bridge rehabilitation on the Coburg Road Ferry Street Bridge. Rehabilitation plans include bridge deck overlays, cleaning and surface preparation for spot painting, cleaning and protection of bearings, replacement of expansion joints, epoxy injection of concrete cracks. The repair period will be 04 Apr – 31 Oct 2022, Monday through Friday up to 24 hours per day. Containment will be installed and the vertical clearance will be reduced from 27 feet to 22 feet at ordinary high water. The subject bridge crosses the Willamette River at RM 182.2 in location 44-03-28.4 N, 123-05-02.4 W. Mariners transiting under the Coburg Road Ferry Street Bridge should be aware of potential fall hazards. For more information on this project contact Mike Hawkins at (541) 954-9483 or mhawkins@dowl.com.

LNM: 14/22

WASHINGTON – PUGET SOUND – SEATTLE TO BREMERTON – DUWAMISH WATERWAY – Bridge emergency deviation (Revised from LNM 16/22)

The Coast Guard has approved an emergency temporary deviation from the operating regulations of the 1st Ave South Highway Bridge (LLNR 16887), AKA SR-99 Bridge, across the Duwamish Waterway, mile 2.5, Seattle, WA. Repairs to the bridge are taking longer than anticipated as some necessary parts are being fabricated, and the Coast Guard has extended the emergency deviation until 26 Aug 2022. If repairs are completed sooner, the deviation will be cancelled. The subject bridge sustained damage from a roadway accident, and the draw span is limited to opening when sustained winds are less than 10 knots. The bridge operator may exercise good judgement to delay or not open the draw for a reasonable time only when sustained winds exceed 10 knots. The bridge operator may delay the opening of the draw for a reasonable time while waiting for sustained winds to be less than 10 knots, but shall inform mariners for the reason of delayed openings. Mariners shall contact the bridge operator prior to entering the Duwamish Waterway to request an opening, if the bridge cannot open due to wind velocity, the bridge operator shall record the vessel(s) name and contact them every thirty minutes with a draw status. The reasonable delay to open due to damages applies to all vessels requesting an opening including vessels of 5000 gross tons and over, a vessel towing a vessel of 5000 gross tons and over, and a vessel proceeding to pick up for towing a vessel of 5000 gross tons and over. During this closure, the draw of the subject bridge may also delay opening the draw to marine vessels engaged in emergency operations.

Chart 18450

LNM: 19/22

WASHINGTON – LAKE WASHINGTON SHIP CANAL – LAKE WASHINGTON – Interstate 90 Highway Bridge Anchor Cable Replacement

WSDOT will be replacing anchor cables linking the I-90 Highway Bridge (west channel) (LLNR 18389) in Lake Washington. The project will take place within a 1000ft wide strip on both the north and south sides of the I-90 floating bridge from 17 Mar to 30 Sep 2022. Work will be carried out during 24 hour shifts typically starting Monday morning at 0600 and finishing Friday at 1800, with some occasional weekend hours. A derrick crane, DB Alameda, will be used to winch up existing anchor cables and pay out new anchor cables. DB Alameda will be maneuvered by the tug Capt Cae, and multiple flat deck barges and working skiffs will be maneuvering within the work zone. All vessels may be contacted on VHF-FM Channel 16. Deep-water divers will be deployed to disconnect the old cable and reconnect the new cable at the lakebed and shallow water divers will be deployed to assist with cable handling near to and under the floating pontoons. All barges will be lighted on the outermost corners of the individual barge. An orange buoy will mark the anchor noting the location and used for retrieval. Some locations on the SW corner of the work zone will require anchors attached to a pendant line for extra length and feature 2 buoys, one for the anchor and another for the pendant line. Mooring of vessels to the bridge will have line travels slightly above and below the water between the derrick crane and the bridge. Mariners transiting through the area shall not produce a wake or approach the barges within 500 feet. No boat traffic is permitted between the barge and the bridge at any time during the course of the project. For additional information, contact Andrew Schaal (0600-1800) at Andrew.Schaal@kiewit.com and (541) 969-0559; or Evan Spading (1800-0600) at Evan.spading@kiewit.com and (808) 342-3561.

Chart 18447

LNM: 10/22

WASHINGTON – LAKE WASHINGTON – SAMMAMISH RIVER – West Sammamish River Bridge Notice (Revised from LNM 13/20)

Construction on the West Sammamish River Bridge at Sammamish River mile 0.5 near Kenmore, Washington is ongoing and will continue through October 2023. The western bridge will be removed and a new bridge constructed. Mariners may transit through the construction zone, but are advised that temporary work piers will be constructed on the west side of the bridge, and will reduce the horizontal span to 40 feet of clearance. Containment will be installed under the bridge reducing the vertical clearance from 11.5 feet to 10.5 feet measured at OHW. Working hours will normally be from 0600 to 1800 six days per week, however, during the in water work window of 01 Jul to 31 Aug, operations will be 24 hours per day. If construction falls behind schedule, the work hours may shift to 24 hours/seven days per week. For more information regarding construction, contact Jake Brockmoller at (253) 888-2514, or Mick Cannon at (253) 377-1041.

Chart 18447

LNM: 05/21

WASHINGTON – EVERETT HARBOR – SNOHOMISH RIVER – Bridge Inspection

WSDOT will be inspecting the SR 529 Bridges (LLNR 18591.2 south bound, and LLNR 18591.3 north bound) across the Snohomish River at river mile 3.7 near Everett, WA. The inspections will take place between 0800 – 1500 daily on 18 – 22 Jul 22, and 25 – 28 Jul 22. The bridges will be inspected using an under-bridge inspection truck (UBIT) that occupies a portion of the roadway and extends a boom under the bridge. There is no fixed impact to navigational clearance from this operation (~10 ft. reduction to clearance while bucket is under the bridge, however the UBIT will promptly give way to tall marine vessels). Mariners are advised to use caution while transiting the area. The UBIT bucket will have a flashing amber light on the bottom and a safety lookout will be on the bridge. Bridge openings will not be impacted. For additional information, contact Alan Kuper, P.E. at (360) 701-0556 or kupera@wsdot.wa.gov.

Chart 18444

LNM: 17/22

WASHINGTON – EVERETT HARBOR – STEAMBOAT SLOUGH – Bridge Inspection

WSDOT will be inspecting the SR 529 Bridges (LLNR 18594.9 south bound, and LLNR 18594.11 north bound) across Steamboat Slough at river mile 1.1 and 1.2 near Marysville, WA. The inspections will take place between 0800 – 1500 daily on 18 – 22 Jul 22, and 25 – 28 Jul 22. The bridges will be inspected using an under-bridge inspection truck (UBIT) that occupies a portion of the roadway and extends a boom under the bridge. There is no fixed impact to navigational clearance from this operation (~10 ft. reduction to clearance while bucket is under the bridge, however the UBIT will promptly give way to tall marine vessels). Mariners are advised to use caution while transiting the area. The UBIT bucket will have a flashing amber light on the bottom and a safety lookout will be on the bridge. Bridge openings will not be impacted. For additional information, contact Alan Kuper, P.E. at (360) 701-0556 or kupera@wsdot.wa.gov.

Chart 18444

LNM: 17/22

OREGON – CAPE SEBASTIAN TO HUMBURG MOUNTAIN – ROGUE RIVER – Shoaling and limited Coast Guard response capability

The Coast Guard provides a seasonal Search and Rescue Detachment (SARDET) on the Rogue River in Gold Beach, Oregon. This unit exists to ensure the safety of the maritime community along the Southern Oregon Coast during periods of increased recreational vessel activity. Currently, significant shoaling is present in the Rogue River and mariners will experience shallower water depths than normal and shallower than charted. During most tidal conditions, the shoaling is preventing the Coast Guard from operating vessels in the river and entrance due to insufficient water depth. USCG Station Chetco River will continue to site a response vessel at Rogue River as often as practicable with respect to available water depth. Additional Search and Rescue response, such as outside the mouth of the river and helicopter operations will continue to be provided from Station Chetco River and Sector North Bend. Dredging at the entrance of the river and in the federal channel is scheduled to begin on or about 08 Jun 2022. During dredging operations, the dredge, barge, support vessels and additional equipment may significantly block the channel. Mariners are encouraged to keep a safe distance from all dredging operations.

Chart 18601

LNM: 23/22

OREGON – CAPE BLANCO TO YAQUINA HEAD – Scientific equipment installation

Oregon State University (OSU) has installed four, 1-mile long, 10-inch diameter, steel conduits under the seafloor running out from Driftwood Beach State Recreation Site near Seal Rock, Oregon, as part of the construction of the PacWave South Wave Energy Test Site. In mid-2023, subsea cables will be installed in the conduits to carry power and data from the test site to shore. Until the cables are installed, the seaward end of the conduits may protrude up to 3 feet vertically and 10 feet horizontally from the seafloor depending on sand movement. Once the cables are installed, the final placement of the conduits will be below the seafloor. The conduit punch outs are located approximately 1500 yards offshore from Driftwood Beach, which is between Seal Rocks and Waldport.

Until the subsea cables are installed, mariners are requested to avoid anchoring or setting fishing gear in a 1,000 x 1,500-foot Conduit Punch Out Area around the conduit exit locations due to risk of snagging on any exposed conduit. The location of the Conduit Punch Out Area was shown in the graphic attached as Enclosure (4) to LNM 52/21. If crab pots, or other equipment, becomes snagged in this area, mariners are asked to contact OSU prior to attempting to recover the snagged items. For more information contact Brett Hembrough at (541) 737-9023 and brett.hembrough@oregonstate.edu, or Dan Helling at (541) 745-8337 and dan.helling@oregonstate.edu.

Chart 18580

LNM: 49/21

COLUMBIA RIVER – PACIFIC OCEAN TO HARRINGTON POINT - Mouth of the Columbia River Jetty System Major Rehabilitation Project

Scheduled repairs of the South Jetty have commenced and are planned to continue through 2024. The 2022 seasonal operations have commenced on and a material off load facility has been constructed at the east end of the park; along the Columbia River, near Trestle Bay. The offload mooring barge will be in place starting on 19 Apr 2022. The offload facility has an aerial clearance of approximately 60 ft above the water line. When there is a barge being unloaded a crane will be utilized, the aerial clearance is about 140 ft. The ends of the spuds are painted white for visibility. For questions or additional information please call or email Sherri Brenner at (503) 550-6743 or email Sheri@jemcamis.com, or the project superintendent, Aaron Anderson at (503) 791-2161 or email AAnderson@jemcamis.com.

The jetties at the Columbia River Entrance have suffered severe deterioration and may no longer be correctly represented upon the nautical charts of the area. Mariners should use caution when transiting in the vicinity of the jetties and the river entrance. Repairs of the North jetty were completed in 2019. More information may be found at the USACE Portland District web site: <http://www.nwp.usace.army.mil/jetties/>

Chart 18521

LNM: 13/22

COLUMBIA RIVER SYSTEM AND WASHINGTON - Testing of prototype plastic buoys

The U.S. Coast Guard is testing various prototype plastic buoys to observe their station keeping ability and visual and radar detection capabilities. Buoys have been or are being placed at the following locations for evaluation:

On the Columbia, Snake and Willamette Rivers:

Columbia River Entrance Lighted Buoy 3 (LLNR 9911), set on 7/06/2022

Desdemona Sands Lighted Buoy 22 (LLNR 9990), set on 1/13/2022

Hood River Lighted Buoy 36 (LLNR 11932), set on 12/14/2021

Bonneville Pool Lighted Buoy 69 (LLNR 12130), set on 5/10/2022

Lake Celilo Buoy 45 (LLNR 12360), set on 9/28/2021

Lake Wallula Lighted Buoy 2 (LLNR 12815), set on 10/04/2021

Snake River Buoy 14 (LLNR 13195), set on 9/30/2021

Snake River Buoy 18 (LLNR 13210)

Elk Rock Buoy 10 (LLNR 15005), reset on 1/06/2022

Elk Rock Buoy 12 (LLNR 15010)

In Grays Harbor and Admiralty Inlet Washington:

Point Chehalis Lighted Buoy 4 (LLNR 15990), set on 5/24/2022

Point Wilson Lighted Buoy 6 (LLNR 16470), set on 12/16/2021

While the buoys performance is being studied, the US Coast Guard is soliciting comments from the maritime community transiting this waterway. Mariners are requested to respond in writing to the Coast Guard District office with any comments on this change at D13-SMB-D13-LNM@uscg.mil. Any discrepancy for these or other Aids to Navigation should continue to be reported to US Coast Guard Sector Columbia River and US Coast Guard Sector Puget Sound.

Charts: 18502 18533 18545

LNM: 21/22

COLUMBIA RIVER – PACIFIC OCEAN TO HARRINGTON POINT – HARRINGTON POINT – WOODY ISLAND CHANNEL – Current measuring buoy

NOAA has deployed a yellow, oceanographic data collection buoy to measure currents in Woody Island Channel about 1500 yards SE of Harrington Point Channel LB 54 (LLNR 10190), in approximate position 46-14-15.288 N, 123-41-09.528 W. The buoy has a yellow light with a group flashing (5) every 20 seconds characteristic. The buoy will be deployed until the end of Sep 2022. For more information, contact Drew Maczko, at (206) 526-6918 or email at drew.maczko@noaa.gov.

Chart 18521

LNM: 16/22

COLUMBIA RIVER – PACIFIC OCEAN TO HARRINGTON POINT – NORTH CHANNEL – Current measuring buoy

NOAA has deployed a yellow, oceanographic data collection buoy to measure currents in the Columbia River North Channel between Grays Point Light 13 (LLNR) and Portuguese Point Daybeacon 14A near the entrance to Grays Bay, in approximate position 46-16-26.076 N, 123-45-24.480 W. The buoy has a yellow light with a group flashing (5) every 20 seconds characteristic. The buoy will be deployed until the end of Sep 2022. For more information, contact Drew Maczko, at (206) 526-6918 or email at drew.maczko@noaa.gov.

Chart 18521

LNM: 16/22

COLUMBIA RIVER – VANCOUVER TO BONNEVILLE – Shoaling protruding into Reed Island Reach

Due to shoaling extending south into the Reed Island Reach Channel south of Reed Island, the US Coast Guard has relocated Reed Island Reach Lighted Buoy 61 (LLNR 11580) to approximate position 45-32-46.318N 122-18-02.052W. This position is near the center of the channel. Vessels transiting Reed Island Reach should navigate on the southern edge of the channel between longitudes 122-17-30.0W and 122-18-25.0W (RM 125+40 to 126+40) and proceed with caution.

Chart 18531

LNM: 30/21

COLUMBIA RIVER – PASCO TO RICHLAND – LAKE WALLULA – Research buoy deployment

USACE has deployed a temporary research data collection buoy in the Columbia River at RM 329.2 in approximate position 46-13-24 N 119-06-59 W. This location is between the Pasco-Kennewick Highway Bridge (LLNR 13052.5) and the US-395 Blue Highway Bridge (LLNR 13057), close to the northern (Pasco) shore. The buoy is yellow, round in shape, approximately 6 ft tall and 4 ft wide, with a yellow light flashing every four seconds (Fl 4s). The buoy will be in place until 30 Sep 2022. For more information, contact Wayne Jousma at (509) 527-7447 or email wayne.r.jousma@usace.army.mil

Chart 18543

LNM: 14/22

OREGON – PORT OF PORTLAND – WILLAMETTE RIVER – Bank stabilization work

Anderson Construction will conduct bank restoration work on the Willamette River from 15 Jun to 31 Oct 2022. The work site is on the western shore of the Willamette River south of the Ross Island Highway Bridge (LLNR 14959.7) near RM 14.4 in approximate location 45-29-41 N, 122-40-06 W. A turbidity curtain will be installed via barge on 15 Jun and then demobilized at the end of the project. Once the turbidity curtain is installed, all work will be done shoreside of the turbidity curtain. For more information, contact the Project Engineer David Knudsen at (503) 702-6969 or email

WASHINGTON – STRAIT OF JUAN DE FUCA – SWIFTSURE BANK – ECHO Program 2022 Voluntary Vessel Slowdown trial at Swiftsure Bank

Effective 01 Jun 2022, the Enhancing Cetacean Habitat and Observation (ECHO) Program voluntary vessel slowdown trial in the vicinity of Swiftsure Bank is in effect for all inbound and outbound commercial and government vessels. If it is safe and operationally feasible to do so, commercial and government vessels are requested to not exceed the following speeds through the water:

- 11 knots – Bulk carriers, tankers, general cargo vessels, and government vessels; and,
- 14.5 knots – Vehicle carriers, cruise ships, and container vessels.

The voluntary vessel slowdown trial takes place in the inbound and outbound lanes of the vessel traffic separation scheme between the start or end of the traffic separation scheme on the western or southern side, and the 124-40-00 W longitudinal line (radio call in point 1) on the eastern side. Speed transition zones are in place about 5 nautical miles prior to entering the slowdown area.

The ECHO Program voluntary slowdown trial in Swiftsure Bank aims to reduce underwater noise in known southern resident killer whale feeding areas. This initiative will remain in effect 24 hours per day until 2359 PDT on 31 Oct 22. The voluntary slowdowns at Swiftsure Bank and in Haro Strait and Boundary Pass are led by the Vancouver Fraser Port Authority's ECHO (Enhancing Cetacean Habitat and Observation) program, in cooperation with government agencies, Indigenous communities, industry partners and environmental groups. For more detailed information related to this slowdown trial and the ECHO program, refer to the following internet web address: <https://www.portvancouver.com/environmental-protection-at-the-port-of-vancouver/maintaining-healthy-ecosystems-throughout-our-jurisdiction/echo-program/projects/swiftsure-bank-slowdown/>

Chart 18460

LNM: 21/22

WASHINGTON – STRAIT OF JUAN DE FUCA – Port of Vancouver Canada 2022 Voluntary Lateral Displacement

As of 01 Jun 22, the Enhancing Cetacean Habitat and Observation (ECHO) Program voluntary inshore lateral displacement is in effect for all tugs transiting the Canadian inshore area of the Strait of Juan de Fuca. If it is safe and operationally feasible to do so, tugs are requested to move south of the known killer whale feeding area and navigate either through the outbound shipping lane or the inshore lateral displacement zone, while maintaining a buffer distance of 1,000 meters from the traffic separation scheme (TSS). The inshore lateral displacement zone is 1,500 meters wide and occurs in the area between 123-52-21.192 W, 48-18-37.332 N and 124-31-33.378 W, 48-28-53.316 N, covering a distance of approximately 28 NM. The ECHO Program voluntary lateral displacement initiative aims to reduce underwater noise in known southern resident killer whale feeding areas along the northern edge of the Strait of Juan de Fuca. This initiative will remain in effect 24 hours a day through 31 Oct 22. For more detailed information related to lateral displacement and the ECHO program, visit the following web address:

<https://www.portvancouver.com/environmental-protection-at-the-port-of-vancouver/maintaining-healthy-ecosystems-throughout-our-jurisdiction/echo-program/projects/lateraldisplacement/>

Chart 18460

LNM: 21/22

WASHINGTON – PUGET SOUND – APPLE COVE TO KEYPORT – Submersible Vehicle testing

The Naval Undersea Warfare Center (NUWC) at Keyport, WA will be continuing operations in the vicinity of NUWC between University Point, the Brownsville Marina and Keyport through 23 Dec 2022. Operations will normally be conducted Monday through Friday during daylight hours. Operations will involve semisubmersible and submersible vehicles escorted by a small naval craft with a flashing red light. The small craft will monitor VHF-FM channels 12 and 16. The call sign for the small craft will be "Keyport Range Control". All craft transiting the area are requested to exercise caution and maintain a sharp lookout for possible semi-submerged vehicles while the range is in operation. Questions can be directed to Keyport Range Control on VHF-FM channels 12 and 16 or by contacting the Pacific Northwest Range Management and Ops Division, Range Control Branch, at (360) 396-2313.

Chart 18446

LNM: 02/22

WASHINGTON – PUGET SOUND – ELLIOTT BAY - Colman Dock construction

Washington State Ferries is conducting demolition and construction operations at the Colman Docks, scheduled to be completed in the summer of 2022. Operations will be conducted from 0700 to 1700, Monday through Friday. Mariners should be aware of marine construction equipment moored around the Colman Dock and regular tows up and down the Duwamish River in support of the operation. Equipment may obstruct small sections of the waterway adjacent to Colman Dock. Water quality monitoring will be taking place during construction operations. Please direct any inquiries to WSF Communications at (206) 402-8070 or email wsfcomms@wsdot.wa.gov.

Chart 18450

LNM: 27/17

WASHINGTON – PUGET SOUND – ELLIOT BAY – DUWAMISH WATERWAY – Terminal 5 pier construction

Orion Marine will be continuing the marine construction activities associated with the Terminal 5 Berth Modernization Project for the Port of Seattle on the Duwamish River west waterway. Phase 2 of the project includes pile installation and new pier construction for and will run through Aug 2023.

Work will typically take place from 0700 to 1700, Monday thru Friday. The DB Rainier and DB St. Helens, will each have a material barge moored alongside and will always remain on site. Each floating plant will have all corners marked with steady burn white lights. The DBs will run on anchors at times so mariners are requested to keep at least a 200-foot distance. The crane and tugs will monitor VHF-FM channel 13. For additional information please contact Jesse Galligan at (253) 552-1140 or email at jgalligan@orionmarinegroup.com.

Chart 18450

LNM: 02/22

WASHINGTON – LAKE WASHINGTON SHIP CANAL – LAKE WASHINGTON – Outfall pipe

Mariners should be aware of a new, permanent outfall pipe that has been installed at The Boeing Company's Renton manufacturing facility at the southern end of Lake Washington. The terminus of the outfall extends approximately 52 feet into the lake at the northeast corner of the Boeing property at an approximate position of 47-30-12.0 N and 122-12-25.2 W. The water depth from the top of the outfall varies from 7.5 to 9.2 feet below low lake level. For additional information about this outfall and its location, contact Mark Clement (425) 229-4279 or email at mark.d.clement@boeing.com.

Chart 18447

LNM: 17/22

**WASHINGTON – STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA – SWINOMISH CHANNEL SOUTH ENTRANCE – Shoaling
(Revised from LNM 14/22)**

Significant shoaling exists in Swinomish Channel, especially the South Entrance between South Entrance Buoy 5 (LLNR 18802) and South Entrance

**WASHINGTON – STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA – SWINOMISH CHANNEL SOUTH ENTRANCE – Shoaling
(Revised from LNM 14/22)**

Daybeacon 12 (LLNR 18812). The project depth of Swinomish Channel is 12 feet, however, the controlling depth of Swinomish Channel is 4.1 feet based upon the latest available hydrographic data. This controlling depth of 4.1 feet is reflected on NOAA ENC products. Raster products do not reflect this sounding information, as they are no longer being updated with most routine corrections. Mariners should consult ENC cells for the most up-to-date information. Mariners should transit the Swinomish Channel waterway with caution, especially at low tidal conditions.

Chart 18427

LNM: 15/22

WASHINGTON – STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA – CAP SANTE WATERWAY AND PADILLA BAY – Diving operations

Natural Resources Consultants and Northwest Straits Foundation will conduct WDFW-approved surface supplied air dive operations to remove derelict crab pots from the Anacortes, Guemes Island, and Padilla Bay areas from 23 May to 15 Jul 2022. Dive operations will take place from 0800-1600 daily from the 30 foot F/V Cadence, loaded with surface supplied air divers and full complement of surface supplied air diving equipment. The southern portion of the operation consists of the waters offshore of Anacortes from Cap Sante Marina to Hat Island, including the northern section of the Swinomish Channel entrance. The northern section includes the northern region of Padilla Bay, from Saddlebag Island to William Point. F/V Cadence will monitor VHF-FM Channel 16. Mariners operating in this area are requested to remain at least 100 yards from vessel during dive operations. For more information, contact the project POCs Kyle Antonelis at (206) 355-9358, kantonelis@nrccorp.com, or Joan Drinkwin at (360) 820-3323, jdrinkwin@nrccorp.com.

Charts: 18421 18424 18427

LNM: 21/22

WASHINGTON – STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA – HALE PASSAGE – Marine construction

American Construction Co. will be replacing the breakwater near the Lummi Island Ferry terminal from 01 Aug to 12 Oct 2022. The work consists of removing the old breakwater and replacing with a larger, 125-ft breakwater and includes some rock drilling. Operations will usually be conducted from 0700-1530 on Monday – Friday in approximate location 48-43-13.950N, 122-40-50.410W. The derrick barge Palouse will be on site with barges Skagit and Chelan, and can be reached on VHF-FM channel 16 or cell phone (425) 238-3144. Mariners are requested to maintain at least 100 yards from the operation. For more information contact Rob Pate at (425) 238-3144, or email robp@americanconstco.com.

Chart 18421

LNM: 23/22

OREGON – WASHINGTON – IDAHO – NOAA's planned cancellation of Paper and Raster charts (Revised from LNM 09/21)

The National Oceanic and Atmospheric Administration (NOAA) is undertaking a multi-year program to end production and maintenance of its suite of over 1,000 traditional paper nautical charts and all associated raster chart products and services, including: Print-on-Demand (POD) paper nautical charts, Full-size chart PDF files, BookletChart™ PDF files, NOAA raster navigational charts (NOAA RNC®), the NOAA RNC tile service, and the online RNC viewer.

Six months prior to cancellation, a notice of the intent to cancel a specific chart will be provided via a "Last Edition" notice. The final cancellation of a chart will be made via a "Canceled" notice. Both types of notices will appear in LNM Section IV, "Chart Correction." A comprehensive list of all cancelled NOAA charts is available at: <http://www.charts.noaa.gov/MCD/Dole.shtml>.

Traditional paper nautical chart production is ending to enable the creation and maintenance of larger scale, more up-to-date, higher quality coverage of NOAA's electronic navigational chart (NOAA ENC®) product. This will significantly enhance the amount of charted detail available to mariners. More information about NOAA's program to sunset traditional paper charts is on the NOAA Coast Survey website at: <https://nauticalcharts.noaa.gov/charts/farewell-to-traditional-nautical-charts.html>. An online NOAA Custom Chart application at: <https://devgis.charttools.noaa.gov/pod> is available to create chart images from ENC data, which may then be printed. Notices to Mariners will not be issued for NOAA Custom Charts.

LNM: 10/21

OREGON – WASHINGTON – IDAHO – Farewell to traditional nautical charts

NOAA is in the process of "sunseting" or ending the production of traditional paper charts. However, even prior to traditional chart production ending, users may notice differences between paper charts and ENCs. There are two broad categories of data that are applied onto NOAA ENCs and paper / raster nautical charts – "Critical Corrections" and "Routine" data. Critical Corrections may be newly discovered shoals or other dangers to navigation, as well as changes in the positions or characteristics of aids to navigation (buoys, beacons, and lights). These are typically changes that are published by the Coast Guard in the weekly LNM. Critical corrections are applied to ENCs first, then applied to paper and raster nautical charts. These changes generally appear on both product types (raster and ENC) within a week of each other. However, new Routine source data are now ONLY applied to NOAA ENCs and not to traditional paper and raster nautical charts. Routine data includes the results of ordinary hydrographic and shoreline surveys, which could be extensive. Any specific dangers revealed during routine surveys are extracted from the data and classified as Critical Corrections to be applied to all products. For more information visit NOAA's website: <https://nauticalcharts.noaa.gov/charts/farewell-to-traditional-nautical-charts.html>

LNM: 15/22

SECTION VIII - LIGHT LIST CORRECTIONS

An Asterisk *, indicates the column in which a correction has been made to new information

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
765.2	DART Tsunami Warning Lighted Buoy 46407	42-42-54.000N 128-49-30.000W	Fl Y 4s			Yellow disc-shaped hull.	Aid maintained by National Oceanic and Atmospheric Administration.	28/22

*

SECTION VIII - LIGHT LIST CORRECTIONS (Continued)

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
765.4	<i>DART Tsunami Warning Lighted Buoy 46404</i>	45-51-47.000N 128-45-38.000W	Fl Y 4s			Yellow disc-shaped hull	Aid maintained by National Oceanic and Atmospheric Administration.	28/22
*								

ENCLOSURES

Enclosure 1

OREGON - WASHINGTON - IDAHO - MONTANA - Summary of Bridge Lighting Discrepancies and Corrections

LNM: 28/22

Enclosure 2

OREGON - WASHINGTON - COLUMBIA RIVER - Summary of Dredging Operations

LNM: 28/22

Enclosure 3

OREGON - WASHINGTON - COLUMBIA RIVER - Summary of Marine Events

LNM: 28/22

Enclosure 4

COLUMBIA RIVER – BONNEVILLE TO THE DALLES – LITTLE WHITE SALMON RIVER – BNSF Railroad Bridge pile removal

LNM: 25/22

Enclosure 5

WASHINGTON – LAKE WASHINGTON SHIP CANAL – UNION BAY REACH – Bridge construction update

LNM: 24/22

Enclosure 6

COLUMBIA RIVER - PACIFIC OCEAN TO HARRINGTON POINT - Old Youngs Bay Highway Bridge and Lewis & Clark River Highway Bridge sketches

LNM: 25/22

Enclosure 7

OREGON – WASHINGTON – SAN FRANCISCO TO CAPE FLATTERY – NOAA and Saildrone joint ocean survey operations

LNM: 26/22

If you have any questions, comments, or need additional information concerning this or other LNMs (e.g. additions, deletions, corrections) contact the address or phone number on the front page.

CDR Brendan J. Harris
Chief, Waterways Management Branch
Thirteenth Coast Guard District

BRIDGE DISCREPANCIES AND CORRECTIONS

Enclosure (1)

BRIDGE DISCREPANCIES						
Waterway	Light List	Bridge Name	Location	Status	Date Reported	BNM
OREGON COAST						
None						
COLUMBIA RIVER						
None						
SNAKE RIVER						
None						
WILLAMETTE RIVER						
	14927.5	St Johns Railroad Bridge	Portland, OR	East side, red pier lights, both upriver and downriver, are reported extinguished	6/10/2022	0421-22
WASHINGTON COAST						
	15897	Chehalis River Bridge	Aberdeen, WA	Electrical Casualty due to vandalism - bridge must be opened manually. 2-hour advance notice required.	6/8/2022	0414-22
PUGET SOUND						
	18398	I-90 Highway Bridge (east channel)	Seattle, WA	Green center light extinguished	12/13/2021	0909-21
IDAHO						
None						
BRIDGE CORRECTIONS						
Waterway	Light List	Bridge Name	Location	Status	Date Reported	BNM
OREGON COAST						
None						
COLUMBIA RIVER						
None						
SNAKE RIVER						
None						
WILLAMETTE RIVER						
None						
WASHINGTON COAST						
None						
PUGET SOUND						
	16887	1st Ave South Highway Twin Bridge	Seattle, WA	Bridge repairs completed; bridge is fully operational.	7/12/2022	None
IDAHO						
None						

Dredging operations are scheduled or in progress at the following locations:

Start Date	End Date	Times	Location	Dredge Vessel	Assist Vessel	Channel monitored	Disposal Area	LNM
1-Jul-22	23-Jul-22	24 Hrs / 7 Days	Rogue River; Boat Basin Access Channel (RM 00+03+17 to 00+21+00)	Patriot, Snohomish	Lummi Island Cassie Lind Regulator	VHF-FM 13 & 16	ODS	20/22
24-Jul-22	24-Aug-22	24 Hrs / 7 Days	Rogue River; Gravel Bar (RM 00+00 to 16+37)	Patriot, Snohomish	Lummi Island Cassie Lind Regulator	VHF-FM 13 & 16	ODS	20/22
16-Jul-22	27-Aug-22	24 Hrs / 7 Days	Columbia River; TBD (RM 03+00 to 145+00)	M/V Bayport	John M	VHF-FM 13, 16 & 66	TBD	27/22
13-Jul-22	15-Jul-22	24 Hrs/7 Days	Columbia River; Miller Sands / Pillar Rock (RM 24+40 to 25+30)	M/V Essayons	None	VHF-FM 13 & 16	RM 24 WA side	28/22
6-Jul-22	1-Aug-22	24 Hrs / 7 Days	Columbia River; Pillar Rock Range (RM 28+18 to 29+00)	M/V Oregon	Clackamas, Ivanhoff and Williams	VHF-FM 13 & 16	TBD	27/22
16-Jul-22	21-Jul-22	24 Hrs / 7 Days	Columbia River; Puget Island (RM 37+30 to 38+50)	M/V Bayport	John M	VHF-FM 13, 16 & 66	TBD	28/22
19-Jul-22	20-Jul-22	24 Hrs / 7 Days	Columbia River; Gull Island (RM 53+35 to 54+35)	M/V Essayons	None	VHF-FM 13 & 16	RM 53 WA side	28/22
17-Jul-22	19-Jul-22	24 Hrs/7 Days	Columbia River; Stella / Fisher Bar (RM 56+40 to 57+50)	M/V Essayons	None	VHF-FM 13 & 16	RM 54 WA side	28/22
15-Jul-22	17-Jul-22	24 Hrs/7 Days	Columbia River; Slaughters Bar (RM 63+45 to 66+10)	M/V Essayons	None	VHF-FM 13 & 16	RM 60 OR side	28/22
14-Jul-22	17-Jul-22	24 Hrs / 7 Days	Columbia River; Kalama / Lower Martin (RM 75+15 to 77+05)	M/V Yaquina	None	VHF-FM 13 & 16	RM 78 OR side	28/22
17-Jul-22	20-Jul-22	24 Hrs / 7 Days	Columbia River; Lower / Upper Martin (RM 79+15 to 81+05)	M/V Yaquina	None	VHF-FM 13 & 16	RM 80 OR side	28/22
20-Jul-22	24-Jul-22	24 Hrs / 7 Days	Columbia River; Upper Martin (RM 81+40 to 83+40)	M/V Yaquina	None	VHF-FM 13 & 16	RM 83 OR side	28/22
16-Jul-22	30-Sep-22	TBD	Willapa Bay; Tokeland, near Willapa Bay Channel LT 15	Ross Island Dredge #7	None	VHF-FM 13, 16 & 79	Shore via pipeline	27/22

Mariners are advised that the start and ending dates for dredging activities may vary due to unforeseen on-site conditions, such as gill net fishing, weather and other factors.

USACE dredges request mariners transit at their slowest safe speed to minimize wake when in the vicinity of a dredge and proceed with caution after making passing arrangements. Vessel(s) and/or equipment may encroach into the channel.

MARINE EVENTS

Enclosure (3)

SECTOR COLUMBIA RIVER MARINE EVENTS			
EVENT DATE	TIME	EVENT NAME	EVENT LOCATION
13-Jul-22	1130-1730	Gorge Downwind Champs	Columbia River, Home Valley, WA to Hood River, OR
14-Jul-22	1130-1730	Gorge Downwind Champs	Columbia River, Home Valley, WA to Hood River, OR
14-Jul-22	1800-2130	OCSA Sailboat Race -SYSCO Twilight Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
15-Jul-22	1130-1730	Gorge Downwind Champs	Columbia River, Home Valley, WA to Hood River, OR
16-Jul-22	2000-0000	Cathlamet Bald Eagle Days	Birnie Creek in Cathlamet, WA
16-Jul-22	1130-1730	Gorge Downwind Champs	Columbia River, Home Valley, WA to Hood River, OR
16-Jul-22	1230-1630	OCSA Sailboat Race -SYSCO Match Race	Columbia River between I-5 and I-205 Bridges, Portland, OR
17-Jul-22	1630-2130	OCSA Sailboat Race -PYC Family Night BC Race	Columbia River between I-5 and I-205 Bridges, Portland, OR
17-Jul-22	0730-1730	Clearwater River Rush Jet Boat Race	Clearwater River, Orofino, ID to Kamiah, ID
18-Jul-22	0730-1730	Clearwater River Rush Jet Boat Race	Clearwater River, Orofino, ID to Kamiah, ID
18-Jul-22	1615-2100	OCSA Sailboat Race -ISC Monday Night Racing Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
19-Jul-22	0730-1730	Clearwater River Rush Jet Boat Race	Clearwater River, Orofino, ID to Kamiah, ID
19-Jul-22	0830-1730	Columbia Gorge Racing Association US Optimist National Championship	Columbia River Between Cascade Locks, OR and Stevenson, WA
19-Jul-22	1800-2130	OCSA Sailboat Race -SYSCO Twilight Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
20-Jul-22	0830-1730	Columbia Gorge Racing Association US Optimist National Championship	Columbia River Between Cascade Locks, OR and Stevenson, WA
21-Jul-22	1800-2130	OCSA Sailboat Race -SYSCO Twilight Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
21-Jul-22	0830-1730	Columbia Gorge Racing Association US Optimist National Championship	Columbia River Between Cascade Locks, OR and Stevenson, WA
22-Jul-22	0830-1730	Columbia Gorge Racing Association US Optimist National Championship	Columbia River Between Cascade Locks, OR and Stevenson, WA
23-Jul-22	0830-1730	Columbia Gorge Racing Association US Optimist National Championship	Columbia River Between Cascade Locks, OR and Stevenson, WA
23-Jul-22	1000-1030	Garibaldi Days Fireworks	Tillamook Bay, Garibaldi, OR
24-Jul-22	1630-2130	OCSA Sailboat Race -RCYC Pirates Beer Can Race	Columbia River between I-5 and I-205 Bridges, Portland, OR
24-Jul-22	0830-1730	Columbia Gorge Racing Association US Optimist National Championship	Columbia River Between Cascade Locks, OR and Stevenson, WA
25-Jul-22	1615-2100	OCSA Sailboat Race -ISC Monday Night Racing Series	Columbia River between I-5 and I-205 Bridges, Portland, OR

MARINE EVENTS

Enclosure (3)

26-Jul-22	1800-2130	OCSA Sailboat Race -SYSCO Soaker	Columbia River between I-5 and I-205 Bridges, Portland, OR
26-Jul-22	1800-2130	OCSA Sailboat Race -SYSCO Twilight Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
27-Jul-22	1300-1630	OCSA Sailboat Race -Ranger 20 Nationals	Columbia River between I-5 and I-205 Bridges, Portland, OR
28-Jul-22	1300-1630	OCSA Sailboat Race -Ranger 20 Nationals	Columbia River between I-5 and I-205 Bridges, Portland, OR
28-Jul-22	1800-2130	OCSA Sailboat Race -SYSCO Twilight Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
29-Jul-22	0530-1830	Tri City Water Follies Columbia Cup	Columbia River, Kennewick, WA
29-Jul-22	1300-1630	OCSA Sailboat Race -Ranger 20 Nationals	Columbia River between I-5 and I-205 Bridges, Portland, OR
30-Jul-22	0530-1830	Tri City Water Follies Columbia Cup	Columbia River, Kennewick, WA
30-Jul-22	1300-1630	OCSA Sailboat Race -Ranger 20 Nationals	Columbia River between I-5 and I-205 Bridges, Portland, OR
31-Jul-22	0530-1830	Tri City Water Follies Columbia Cup	Columbia River, Kennewick, WA
31-Jul-22	1300-1630	OCSA Sailboat Race -Ranger 20 Nationals	Columbia River between I-5 and I-205 Bridges, Portland, OR
1-Aug-22	1615-2100	OCSA Sailboat Race -ISC Monday Night Racing Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
2-Aug-22	1800-2130	OCSA Sailboat Race -SYSCO Twilight Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
4-Aug-22	1800-2130	OCSA Sailboat Race -SYSCO Twilight Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
6-Aug-22	1330-1630	OCSA Sailboat Race -SYSCO Dual Bridge Duel & CC Cup	Columbia River between I-5 and I-205 Bridges, Portland, OR
6-Aug-22	1000-1700	Smoke on the Water Hobie Cat Regatta	Columbia River, Skamokawa, WA
6-Aug-22	0730-1630	Paddle for Life	Lake River, Ridgefield, WA
6-Aug-22	1000-1700	Double Damned 2022	Columbia River between Cascade Locks and The Dalles
7-Aug-22	1000-1700	Smoke on the Water Hobie Cat Regatta	Columbia River, Skamokawa, WA
8-Aug-22	1615-2100	OCSA Sailboat Race -ISC Monday Night Racing Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
9-Aug-22	1800-2130	OCSA Sailboat Race -SYSCO Twilight Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
11-Aug-22	1800-2130	OCSA Sailboat Race -SYSCO Twilight Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
13-Aug-22	1030-1330	Swim the Snake	Snake River, within Lake Bryon near Lyons Ferry State Park, WA
13-Aug-22	1045-1600	OCSA Sailboat Race -SYSCO St. Helens Race & Cruise	Columbia River between I-5 and I-205 Bridges, Portland, OR
14-Aug-22	1045-1600	OCSA Sailboat Race -SYSCO St. Helens Race & Cruise	Columbia River between I-5 and I-205 Bridges, Portland, OR
15-Aug-22	1615-2100	OCSA Sailboat Race -ISC Monday Night Racing Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
16-Aug-22	1800-2130	OCSA Sailboat Race -SYSCO Twilight Series	Columbia River between I-5 and I-205 Bridges, Portland, OR

MARINE EVENTS

Enclosure (3)

18-Aug-22	1800-2130	OCSA Sailboat Race -SYSCO Twilight Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
20-Aug-22	1630-2100	OCSA Sailboat Race -CYC Sport Your Colors BC Race	Columbia River between I-5 and I-205 Bridges, Portland, OR
22-Aug-22	1615-2100	OCSA Sailboat Race -ISC Monday Night Racing Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
23-Aug-22	1800-2130	OCSA Sailboat Race -SYSCO Twilight Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
25-Aug-22	1800-2130	OCSA Sailboat Race -SYSCO Twilight Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
27-Aug-22	0830-1730	Thunder on the Snake	Snake River Hells Gate to Bear Bar, Lewiston, Idaho
28-Aug-22	0830-1730	Thunder on the Snake	Snake River Hells Gate to Bear Bar, Lewiston, Idaho
28-Aug-22	1630-2100	OCSA Sailboat Race -Cal 20 Mardi Gras BC Race	Columbia River between I-5 and I-205 Bridges, Portland, OR
29-Aug-22	1615-2100	OCSA Sailboat Race -ISC Monday Night Racing Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
30-Aug-22	1800-2130	OCSA Sailboat Race -SYSCO Twilight Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
1-Sep-22	1800-2130	OCSA Sailboat Race -SYSCO Twilight Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
5-Sep-22	0700-1100	Roy Webster Cross Channel Swim	Columbia River, Cascade Locks, OR
5-Sep-22	1615-2100	OCSA Sailboat Race -ISC Monday Night Racing Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
10-Sep-22	0730-1030	Columbia River Cross Channel Swim	Columbia River between Kennewick, WA and Pasco, WA
10-Sep-22	1130-2100	OCSA Sailboat Race -RCYC Long Distance Race	Columbia River between Martin Slough, Woodland, WA and Willamette River, Portland Or
11-Sep-22	0900-2100	OCSA Sailboat Race -RCYC Long Distance Race	Columbia River between Martin Slough, Woodland, WA and Willamette River, Portland Or
12-Sep-22	1615-2100	OCSA Sailboat Race -ISC Monday Night Racing Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
17-Sep-22	8:00- 1800	LOCR Willamette River Regatta	Lake Oswego, OR
17-Sep-22	1230-1630	OCSA Sailboat Race -SYSCO One-Design Races	Columbia River between I-5 and I-205 Bridges, Portland, OR
18-Sep-22	8:00- 1800	LOCR Willamette River Regatta	Lake Oswego, OR
18-Sep-22	1230-1630	OCSA Sailboat Race -CYC Sailing on Sunday Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
19-Sep-22	1615-2100	OCSA Sailboat Race -ISC Monday Night Racing Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
24-Sep-22	1530-2100	OCSA Sailboat Race -OWSA Out of the World BC Race	Columbia River between I-5 and I-205 Bridges, Portland, OR
25-Sep-22	1230-1630	OCSA Sailboat Race -CYC Sailing on Sunday Series	Columbia River between I-5 and I-205 Bridges, Portland, OR

MARINE EVENTS

Enclosure (3)

26-Sep-22	1615-2100	OCSA Sailboat Race -ISC Monday Night Racing Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
1-Oct-22	1230-1630	OCSA Sailboat Race -PYC Robert A. Smith Regatta	Columbia River between I-5 and I-205 Bridges, Portland, OR
2-Oct-22	1230-1630	OCSA Sailboat Race -PYC Robert A. Smith Regatta	Columbia River between I-5 and I-205 Bridges, Portland, OR
2-Oct-22	1230-1630	OCSA Sailboat Race -CYC Sailing on Sunday Series	Columbia River between I-5 and I-205 Bridges, Portland, OR
7-Oct-22	1000-1500	Oregon Pathfinders Canoe	Klaskanine River, Youngs River, Youngs Bay, Lewis and Clark River, Astoria, OR
8-Oct-22	1000-1500	Oregon Pathfinders Canoe	Klaskanine River, Youngs River, Youngs Bay, Lewis and Clark River, Astoria, OR
9-Oct-22	1000-1500	Oregon Pathfinders Canoe	Klaskanine River, Youngs River, Youngs Bay, Lewis and Clark River, Astoria, OR

SECTOR PUGET SOUND MARINE EVENTS			
EVENT DATE	TIME	EVENT NAME	EVENT LOCATION
13-Jul-22	1900-2130	Windseekers Series 2022	Commencement Bay, Dalco Passage
13-Jul-22	1800-2030	Wednesday Race Series	Port Townsend Bay
13-Jul-22	1700-2100	CYC Seattle Wednesday night evening series	Lake Washington
13-Jul-22	1700-2100	CYC Sound Wednesday Sound Evening Series	West, North and South of Shilshole Marina
14-Jul-22	1900-2030	Elliot Bay Marina	Elliot Bay
14-Jul-22	1800-2100	TTPYC Thursday Night Sailboat Race Series	Vashon Island from Three Tree Point south to Des Moines marina and Redondo
14-Jul-22	1730-1930	Sequim Bay Duck Dodge Race	Sequim Bay, WA
14-Jul-22	1700-2100	CYC Sound Thursday Evening Series	West, North and South of Shilshole Marina
15-Jul-22	1800-2100	Milltown Sailing Assn - Log Dodge Series Sailboat Race	Port Gardner, Possession Sound, Snohomish River entrance
15-Jul-22	1800-2030	Friday Sailing Series	Port Townsend Bay
15-Jul-22	1800-2000	Spring Friday Night Series	Sinclair Inlet
15-Jul-22	0800-1600	Salish 100	Swantown Marina (Olympia) to Henderson Inlet
15-Jul-22	1900-2130	Take Your Time Friday's Race Series	Shilshole Bay
15-Jul-22	1900-2400	Moonlight Madness	Shilshole Bay, Duwamish Head, Blakely Rock, and Skiff Point
16-Jul-22	1400-1730	Three Hour Tour Series 2	Commencement Bay, Dalco Passage
16-Jul-22	0800-1600	Salish 100	Henderson Inlet to Penrose State Park (Carr Inlet)
16-Jul-22	2200-2230	Quileute Days	La Push, WA (beach)
16-Jul-22	1000-1800	Women at the Helm	Shilshole Bay across the sound to Skiff Point, up to Port Madison, across to Spring Beach and back to Shilshole Bay
16-Jul-22	1000-1800	SBYC Saturday Race Series	Sequim Bay, WA

MARINE EVENTS

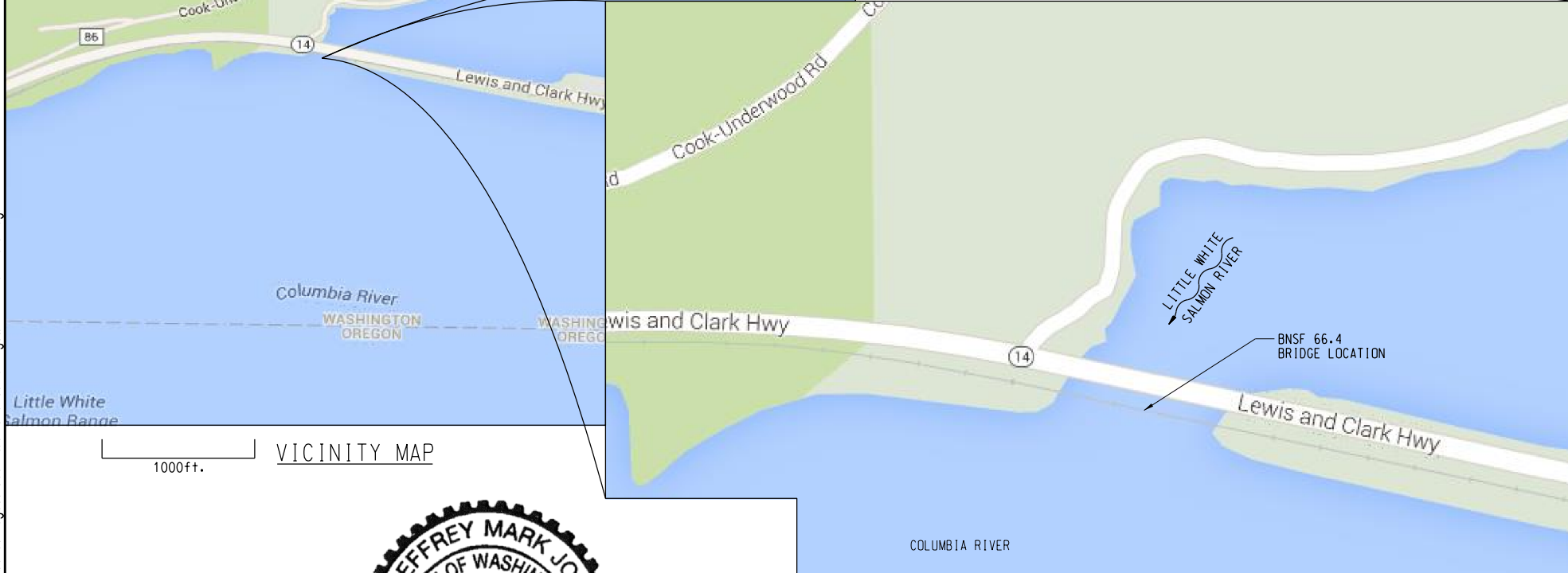
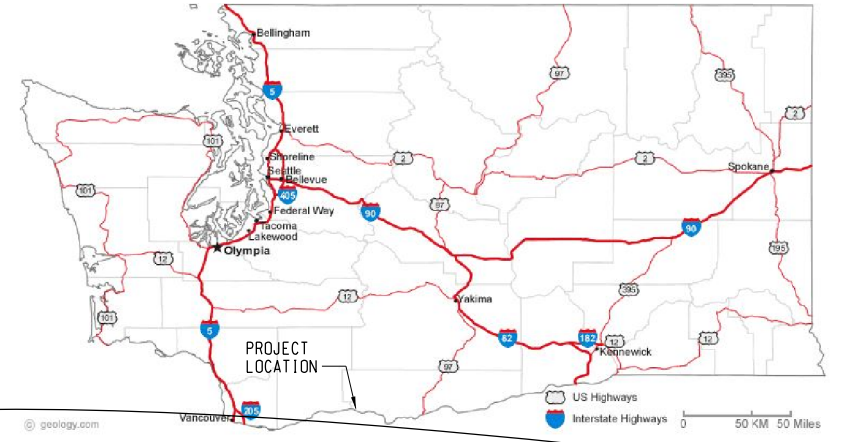
Enclosure (3)

17-Jul-22	0800-1600	Salish 100	Penrose State Park to Gig Harbor
18-Jul-22	0800-1600	Salish 100	Gig Harbor to Blake Island State Park
18-Jul-22	1830-2000	Ballard Cup Series II	Shilshole Bay
19-Jul-22	0800-1600	Salish 100	Blake Island State Park to Appletree Cove
19-Jul-22	1800-2200	Duck Dodge Lake Union	Lake Union
19-Jul-22	1700-2100	CYC Seattle Lake Tuesday Evening Series	Lake Washington
20-Jul-22	1900-2130	Windseekers Series 2022	Commencement Bay, Dalco Passage
20-Jul-22	1800-2030	Wednesday Race Series	Port Townsend Bay
20-Jul-22	0800-1600	Salish 100	Appletree Cove to Port Ludlow
20-Jul-22	1700-2100	CYC Seattle Wednesday night evening series	Lake Washington
20-Jul-22	1700-2100	CYC Sound Wednesday Sound Evening Series	West, North and South of Shilshole Marina
21-Jul-22	1900-2030	Elliot Bay Marina	Elliot Bay
21-Jul-22	0800-1600	Salish 100	Port Ludlow to Point Hudson Marina, Port Townsend (via Port Townsend ship canal)
21-Jul-22	1800-2100	TTPYC Thursday Night Sailboat Race Series	Vashon Island from Three Tree Point south to Des Moines marina and Redondo
21-Jul-22	1730-1930	Sequim Bay Duck Dodge Race	Sequim Bay, WA
21-Jul-22	1700-2100	CYC Sound Thursday Evening Series	West, North and South of Shilshole Marina
22-Jul-22	1800-2100	Milltown Sailing Assn - Log Dodge Series Sailboat Race	Port Gardner, Possession Sound, Snohomish River entrance
22-Jul-22	1800-2030	Friday Sailing Series	Port Townsend Bay
22-Jul-22	1900-2130	Take Your Time Friday's Race Series	Shilshole Bay
23-Jul-22	0900-1600	2022 BBOP Classic OC race	Bellingham Bay
23-Jul-22	1100-1600	Lido 14 and Cal 20 Regatta	Quartermaster Harbor, Dalco Passage and Commencement Bay
24-Jul-22	1100-1600	Lido 14 and Cal 20 Regatta	Quartermaster Harbor, Dalco Passage and Commencement Bay
7/24/22 - 7/31/22	All Day	Awaken the Canoes 2022	East Saanich BC - John's Island - Orcas Island - Sucia Island, Jones Island, Waldron Island
25-Jul-22	1800-2030	Ballard Cup Series III (3)	Shilshole Bay
26-Jul-22	1800-2200	Duck Dodge Lake Union	Lake Union
26-Jul-22	1700-2100	CYC Seattle Lake Tuesday Evening Series	Lake Washington
27-Jul-22	1900-2130	Windseekers Series 2022	Commencement Bay, Dalco Passage
27-Jul-22	1800-2030	Wednesday Race Series	Port Townsend Bay
27-Jul-22	1700-2100	CYC Seattle Wednesday night evening series	Lake Washington
27-Jul-22	1700-2100	CYC Sound Wednesday Sound Evening Series	West, North and South of Shilshole Marina
28-Jul-22	1900-2030	Elliot Bay Marina	Elliot Bay
28-Jul-22	1800-2100	TTPYC Thursday Night Sailboat Race Series	Vashon Island from Three Tree Point south to Des Moines marina and Redondo
28-Jul-22	1730-1930	Sequim Bay Duck Dodge Race	Sequim Bay, WA

MARINE EVENTS

Enclosure (3)

28-Jul-22	1700-2100	CYC Sound Thursday Evening Series	West, North and South of Shilshole Marina
29-Jul-22	1800-2100	Milltown Sailing Assn - Log Dodge Series Sailboat Race	Port Gardner, Possession Sound, Snohomish River entrance
29-Jul-22	2200-2230	Whaling Days (Fireworks)	Dyes Inlet, Silverdale, WA
29-Jul-22	1900-2130	Take Your Time Friday's Race Series	Shilshole Bay
30-Jul-22	1000-TBD	Bush Point Race	Port Townsend Bay
30-Jul-22	1000-1800	SBYC Saturday Race Series	Sequim Bay, WA
30-Jul-22	0900-1600	Da Grind 2022	Alki Beach to Blake Island, back
31-Jul-22	1030-1400	Wanda Fuca Challenge	Strait of Juan de Fuca



1000ft. VICINITY MAP

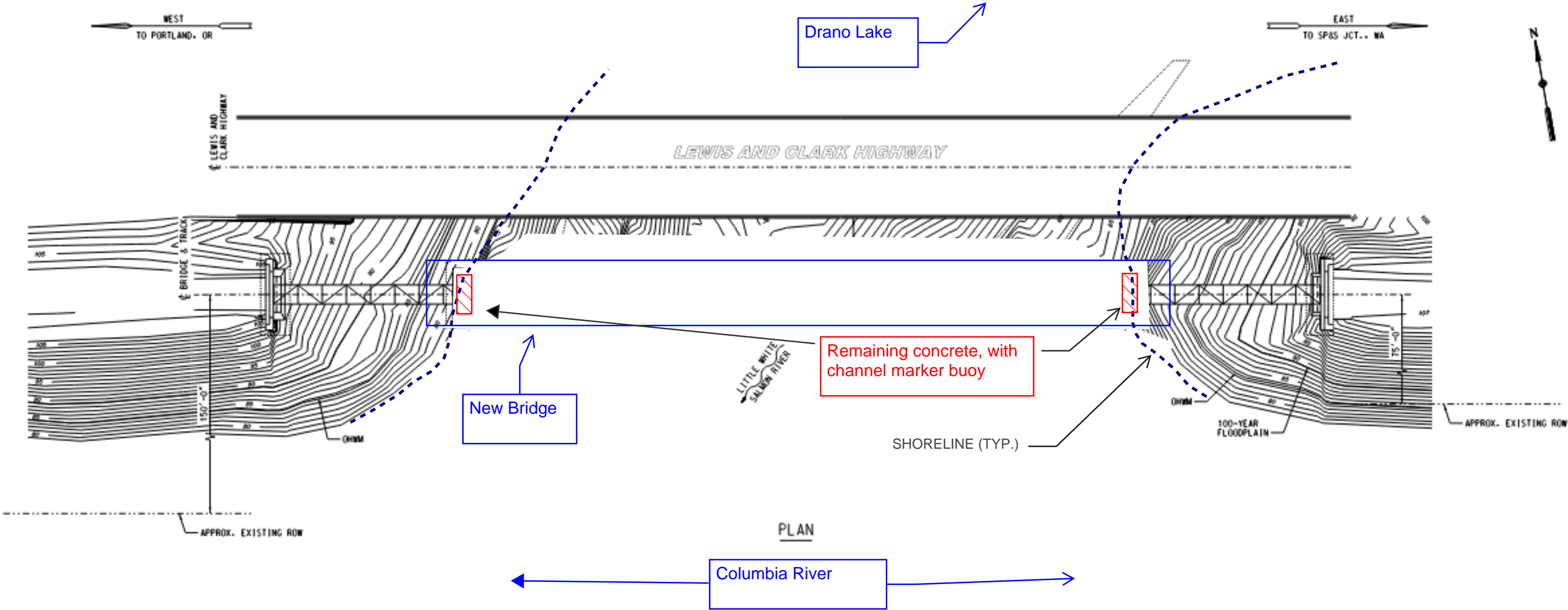
300ft. LOCATION MAP



REFERENCE: NWS-2016-207	LOCATION: BNSF 66.4	PROPOSED PROJECT:
APPLICANT: BNSF RAILWAY	LAT/LONG: 45.711219 N	BNSF BRIDGE OVER THE LITTLE
ADJACENT PROPERTY OWNERS:	-121.648351 W	WHITE SALMON RIVER MIKLE 0.0
1.SKAMANIA COUNTY	IN: LITTLE WHITE SALMON RIVER	
2.WDFW	NEAR/AT: COOK, WA	
3.U.S. FISH & WILDLIFE SERVICE	COUNTY: SKAMANIA	
4.JULIUS LEDGET & DARLENE VIERECK	STATE: WA	
PAGE 1 OF 7		

Date Printed: 11/11/2019 Time Printed: 9:31:42 AM
File Location: \\kcow001\jobs\158620\Bridges\LS0047166.4\Plans\Drawings\IARPA Permit\T01.dgn





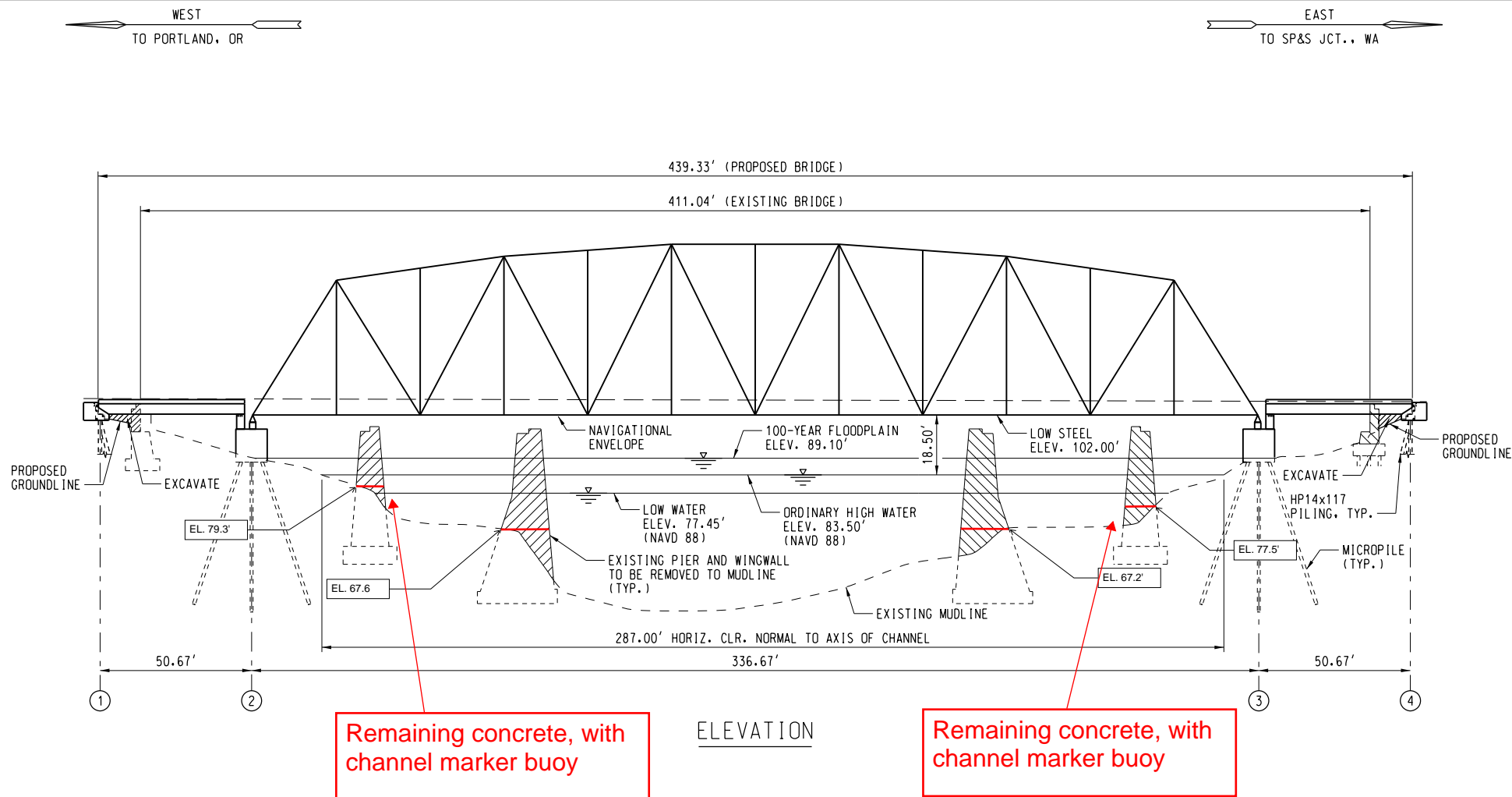
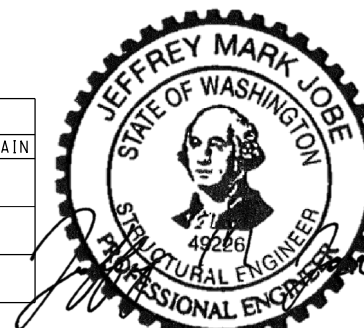


TABLE OF PERMANENT IMPACTS				
	BELOW OHW	IN FLOODPLAIN	ABOVE FLOODPLAIN	
FILL EXCAVATION	REMOVAL OF EXIST. PIERS/WINGWALLS	6,550 C.Y. / 21,115 S.F.	160 C.Y. / 2,510 S.F.	---
	ABUTMENTS	---	---	252 C.Y. / 1,148 S.F.
	NEW PIERS	11 C.Y. / 95 S.F.	140 C.Y. / 1,252 S.F.	---



AS-BUILT CUT ELEVATIONS SHOWN IN RED
VERTICAL DATUM: NAVD88

REFERENCE: NWS-2016-207
APPLICANT: BNSF RAILWAY
PROPOSED PROJECT:
BNSF BRIDGE OVER THE LITTLE
WHITE SALMON RIVER MIKLE 0.0
LOCATION: BNSF 66.4
PAGE 3 OF 7
DATE



UNION BAY

LAKE WASHINGTON

LNM 24/22:

Daily closures to both A and B corridors of the west channel from 0400 – 1300 from 25 July to 16 Sept. After 1300 daily, corridor B will be open to traffic, and corridor A will be periodically closed for construction.

From 04 – 07 August construction will pause for Seafair activities and both the east and west channels of the bridge will remain open for traffic all day.

Corridor A

Corridor B

CONSTRUCTION
WORKZONE

Google Earth

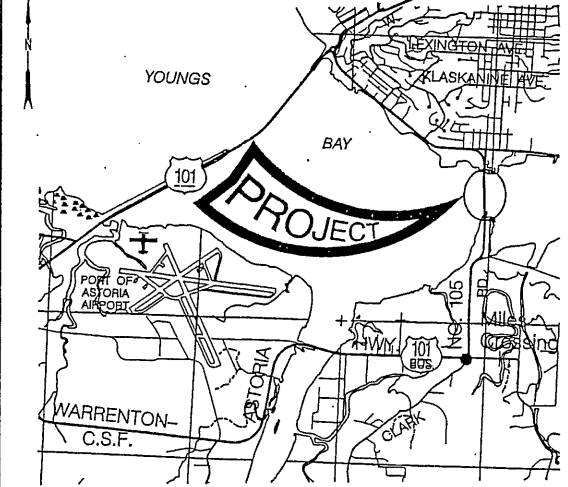
100 m

Camera: 717 m 47°38'35"N 122°16'35"W

2 m

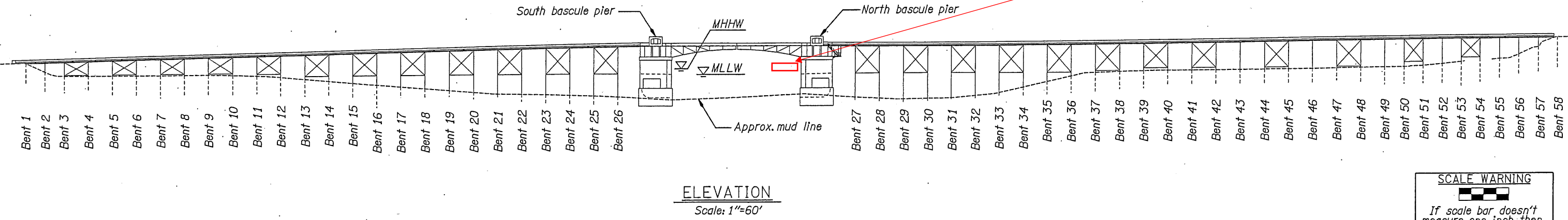
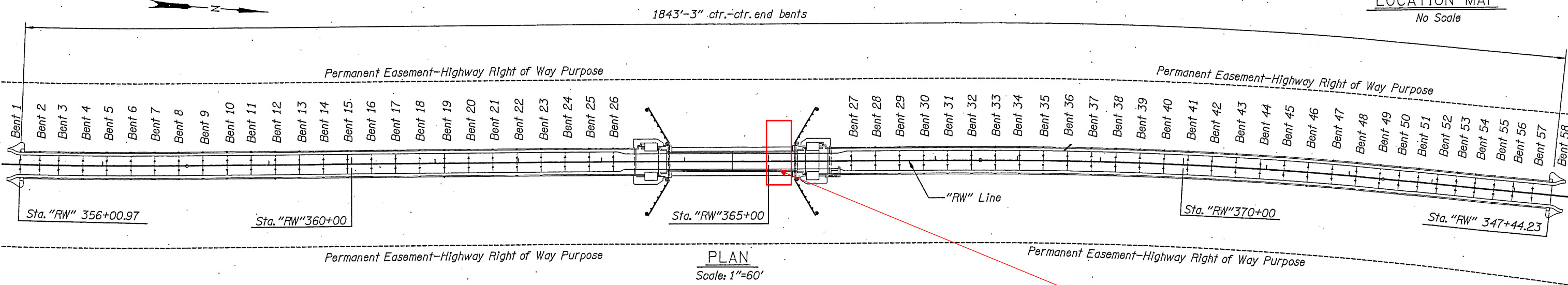
Tide Level Data		
	Station ID #9439011	Station ID #9439040
Highest Tide	11.35' (Nov. 22, 1988)	12.58' (Jan. 27, 1983)
MHHW	8.46'	8.82'
MHW	7.75'	8.15'
DTL	4.18'	4.52'
MLW	1.20'	1.38'
MLLW	-0.10'	0.21'
Lowest Tide	-2.92' (June 23, 1986)	-3.64' (Jan. 28, 1979)

- NOTES:
- Elevations shown on these plans are based on North American Vertical Datum, 1988 (NAVD88).
 - Tide elevations are provided for information only and are shown based on data from the nearest NOAA Stations. Station ID #9439011 is located in Hammond, Oregon approximately 6 miles away. Station ID# 9439040 is located in Astoria, Oregon approximately 7 miles away. Contractor is responsible for planning work at the site around existing tidal fluxuations.




SEC. 18, T. 8 N., R. 9 W., W.M.
LOCATION MAP
No Scale

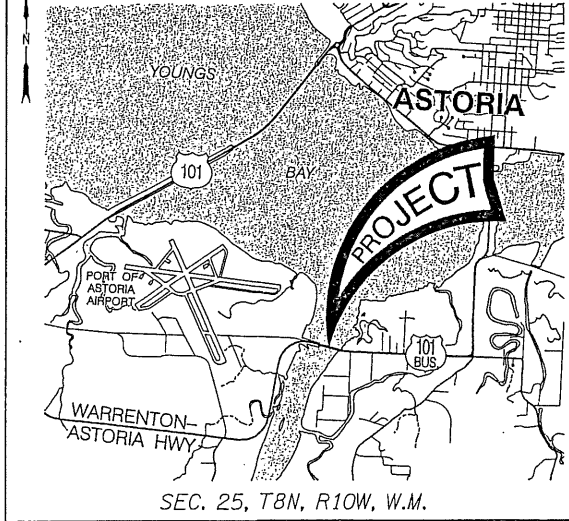
Old Young's Bay Bridge



SCALE WARNING
If scale bar doesn't measure one inch then drawing is not to scale.

DATE 02/14	REVISION Drawing reissued Feb. 2014	BY	OBEC CAD	 OREGON DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 00330	YOUNGS BAY, HWY 105 (OLD YOUNGS BAY) US101 (BUS.): OLD YOUNGS BAY & LEWIS & CLARK RIVER BRIDGES SEC. WARRENTON-ASTORIA HWY. (M.P. 6.89) CLATSOP CO.	SHEET 1 OF 18 DRAWING NO. 92299	
ACCOMPANIED BY DWGS. dwgs. 92300-92313, 93364-93366			DRAWN BY Catrina Walter		DATE February 2014			PLAN & ELEVATION
			DESIGNER Brian S. Maxwell		CALC. BOOK 6224			
			CHECKER Scott McMahon					

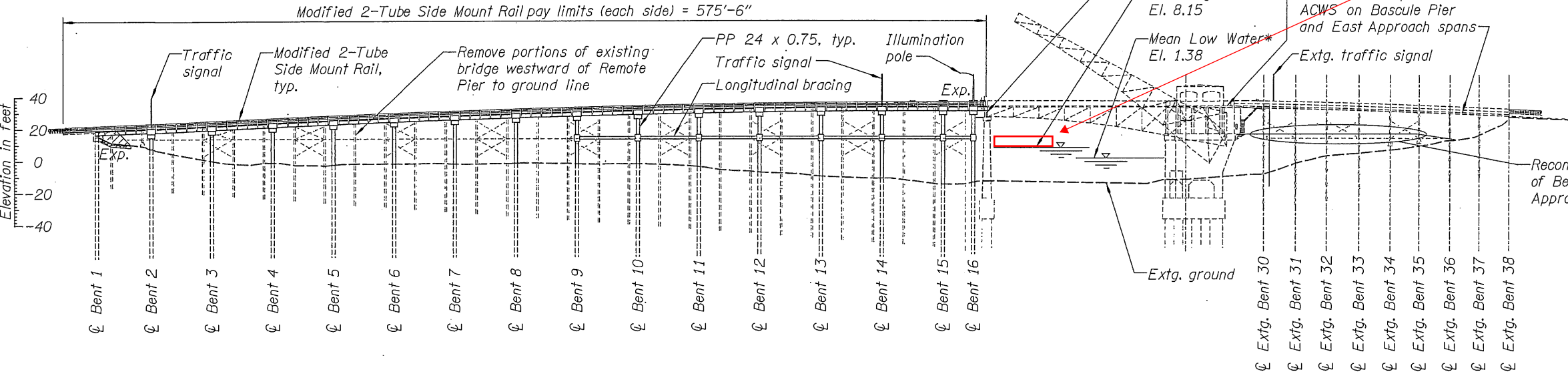
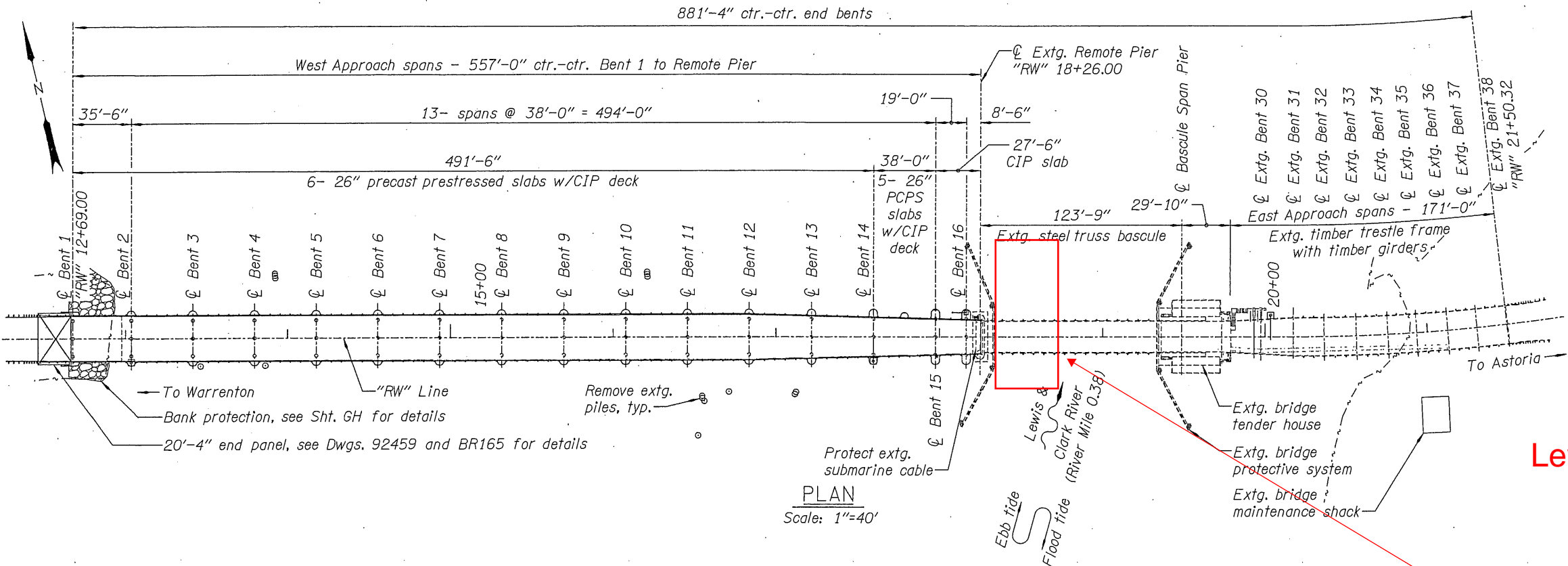




Lewis & Clark River Bridge

40'x90 Barge Location

*Water level data provided is from the Astoria, OR NOAA Station (ID: 9439040) located approximately 7 miles away along the Columbia River.



SCALE WARNING
If scale bar doesn't measure one inch then drawing is not to scale

Note:
Elevations shown are based on North American Vertical Datum, 1988.

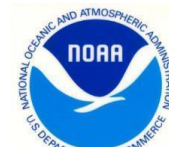
DATE	REVISION	BY
02-2014	DRAWING REISSUED	
ACCOMPANIED BY DWGS. 92429-92465, 92505-92512, BR157, BR165, BR195, BR203, BR226, BR230, BR246, BR420, BR445, RD410, TM629, TM630, and TM652.		

DRAFTER:	OBE CAD
DESIGNER:	Matthew A. Stucker, PE
CHECKER:	Brian S. Maxwell, PE, SE (BergerABAM)
REVIEWER:	Al Heyn, PE



REGION 2 TECH CENTER

STRUCTURE NO.00711.....	LEWIS & CLARK, HWY. 105 US101B: OLD YOUNGS BAY & LEWIS & CLARK RVR BRIDGES PROJECT WARRENTON-ASTORIA HWY. (M.P. 4.78) CLATSOP CO.	SHEET1..... OF46.....
DATEFebruary, 2014.....		DRAWING NO. 92428.....
CALC. BOOK6608.....		
PLAN AND ELEVATION		



OCEAN RESEARCH EQUIPMENT IN WATER

United States West Coast
July 1st - October 15th, 2022

SAILDRONE, INC. will operate two Uncrewed Surface Vehicles called “saildrones” for oceanographic and fisheries research, in the waters adjacent the coastline stretching from Cape Flattery, WA to San Francisco, CA, from July through October 2022. They will be launched from Newport, OR and recovered in the vicinity of San Francisco Bay, CA.

For more about this year’s fisheries survey, please visit
<https://www.fisheries.noaa.gov/about/fisheries-resources-division-southwest-fisheries-science-center>

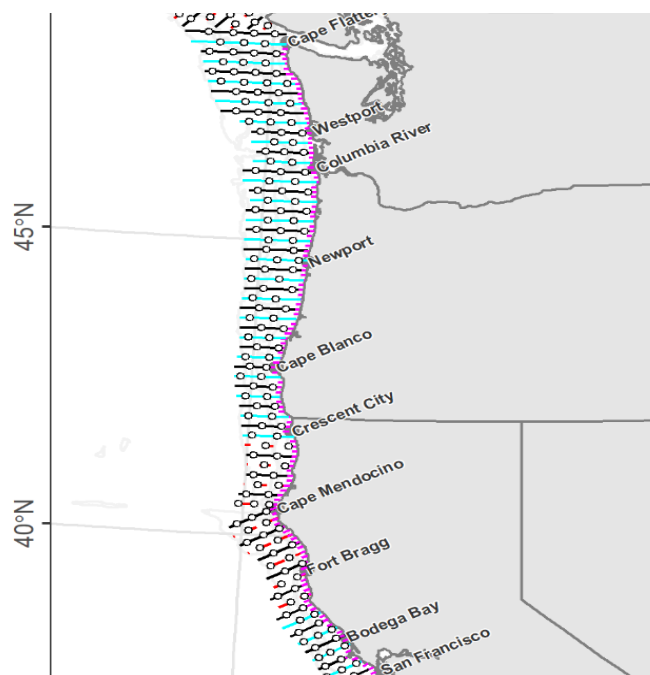
**VESSELS ARE REQUESTED TO TRANSIT THE AREA WITH CAUTION, AND REMAIN
GREATER THAN 500 METERS AWAY FROM THE RESEARCH EQUIPMENT.**

Saildrones are wind powered Uncrewed Surface Vehicles that carry important oceanographic and fisheries acoustics research instrumentation and are controlled from shore through satellite communications.

- **Color: Orange**
- **Light: white all-round light**
- **Radar Reflector: Yes**
- **Notation: “Saildrone”**
- **Length: 23 ft & Width: 2 ft**
- **Height: 16 ft above water line**
- **Draft: 6 ft, Avg. speed: 1.5 kts**
- **GPS / AIS : Yes**



SAILDRONE MISSION CONTROL
(510) 722-6070
missioncontrol@saildrone.com



SCIENCE CONTACTS

David Demer (NOAA) Kevin Stierhoff (NOAA)
858-864-4112 808-225-0106

david.demer@noaa.gov kevin.stierhoff@noaa.gov