



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

LOCAL NOTICE TO MARINERS

District: 13

Week: 19/23

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=>

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, 2023 Edition, is available at
https://www.navcen.uscg.gov/sites/default/files/pdf/lightLists/LightList_V6_2023.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). LNM, 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 D13-0314-23	Ending BNM D13-0326-23
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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 – COOS BAY – North Jetty repair project

Trade West Construction (TWC) will be performing work for the Coos Bay North Jetty Repair Contract. TWC will construct a Material Offloading Facility (MOF) at the Coos Bay North Spit to deliver jetty stone that will be used in the jetty repair. The MOF construction will be accomplished between 06 – 16 May 2023. Barge delivery and unloading will be taking place on the east side of the Coos Bay North Spit, just north of Log Spiral Bay, in approximate position 43-21-45.484 N, 124-19-11.176 W. This location is approximately 200 yards north of Coos Bay Range A Front Light (LLNR 8815). Work will be conducted from the tug Deborah C, which will monitor VHF-FM channels 16 and 07. The facility will utilize a breasting barge and an engineered ramp, both designed to accommodate heavy construction equipment and allow the material arriving by barge to be transferred down the ramp onto the breasting barge and then from the breasting barge onto the land at the Coos Bay North Spit. The buoy anchors, the ropes to tie off the barges, the barges, and the associated traffic will be adjacent to the north spit and out of the federal navigation channel. This facility will require vessels to stay clear while in operation. For more information, contact Andy Leavitt at (435) 669-2268 or email AandKLeavitt@gmail.com.

Chart 18587

LNM: 19/23

OREGON – WILLAMETTE RIVER – Bridge construction

ODOT and the Hamilton Construction Company will conduct the complete demolition and reconstruction of the Van Buren Bridge (Oregon Highway 34), across the Willamette River at river mile 131.7 in Corvallis, OR between Jun 2023 and Dec 2026. Construction activity will take place across the entire river at the bridge location. Construction activities will take place primarily from the hours of 0700 to 1800, Monday through Saturday. Bridge construction work will include geotechnical drilling, removal and replacement of the existing bridge, the installation of a temporary work bridge spanning the river just upstream of the existing bridge, and the installation a temporary diversion bridge just downstream of the existing bridge spanning the river and carrying vehicular traffic.

A temporary navigable channel for mariners will be maintained with reduced horizontal and vertical clearances for the duration of the project. The temporary channel will provide an horizontal clearance of at least 40 feet and vertical clearance of at least 17.4 feet from the ordinary high-water elevation (OHW). A temporary river clearance gauge will be mounted to the bridge adjacent to the navigable channel at the upstream side of the temporary work bridge and at the downstream side of the diversion bridge. The river clearance gauge will be white with black letters and will show the actual vertical clearance between the water line and overhead obstructions above the navigable channel. Buoy lines, lighting, and signage will direct mariners through the temporary navigable channel and away from "no-entry" construction areas. The temporary navigable channel will be marked with a floating buoy line consisting of orange floating buoys fitted with white colored reflective tape and white flashing lights (FI W 4s) mounted at 100-foot intervals along the buoy line. Flashing yellow lights (FI Y 4s) will be installed on both the temporary diversion bridge and the temporary work bridge trestle at 100-foot intervals along the outside edge of each structure with one centered over the navigable channel at the upstream edge of the temporary work bridge and the downstream edge of the diversion bridge. Red (FI R 4s) and green (FI G 4s) lights will be mounted on the upstream edge of the temporary work bridge and the downstream edge of the diversion bridge, marking the reduced navigable channel limits. Informational signs (white with black lettering) will be mounted on the upstream side of the temporary work bridge and the downstream side of the temporary diversion bridge. Mariners are advised to use caution while transiting the area.

A diagram of the placement of warning signs and buoys is included as enclosure (4) of this LNM. For more information contact Markus Schaaf, at (541) 757-4280 or email markus.schaaf@odot.oregon.gov.

LNM: 19/23

COLUMBIA RIVER – HANFORD REACH – HOMESTEAD ISLAND – Missing buoys (Revised from LNM 50/22)

Energy Northwest, located on the west side of the Columbia River at river mile 351, has reported that Hanford Reach Lighted Buoys 1, 3 and 5

are all missing. The buoys are intended to mark an intake pipe and the anchor blocks that support it near the Energy Northwest facility. Until the buoys can be reset, mariners are requested to reduce speed and use caution near the western side of the river when transiting in this area. For more information, contact Marshall Schmitt at (509) 372-5334 or email maschmitt@energy-northwest.com or Brad Barfuss at (509) 377-8639 or email bbarfuss@energy-northwest.com.

LNM: 19/23

IDAHO – GPS testing

US Strategic Command has proposed GPS testing encompassing the majority of southern and central Idaho, eastern Oregon, and northern Nevada. The center point of the test will be near Mountain Home, ID, at position 42-39-52.7 N, 115-32-41.4 W with a radius of 184 NM. The GPS navigation signal may be unreliable due to testing on GPS frequencies used by shipboard navigation and handheld systems. Systems that rely on GPS, such as e-911, AIS and DSC, may be affected. The testing frequencies will be GPS L1 and L2. Testing dates and times are as listed below, using Pacific Daylight Time as local time:

0900 – 1130 on 27 Jun 23;
0900 – 1130 on 28 Jun 23;
0900 – 1130 on 29 Jun 23.

For additional information or to express concerns, contact the Coast Guard Navigation Center at (703) 313-5900 or at <https://www.navcen.uscg.gov/?pageName=dgpsSiteInfo¤tOutages>.

LNM: 19/23

COLUMBIA RIVER – HARRINGTON POINT TO CRIMS ISLAND – WESTPORT – Current measuring buoy

NOAA will be deploying a yellow, oceanographic data collection buoy to measure currents in the Columbia River on 08 May 2023 near Pancake Point between RM 44 and 45, in approximate location 46-08-46.56 N, 123-21-55.50 W. The buoy has a yellow light with a group flashing (5) every 20 seconds characteristic. The buoy will be deployed from NOAA's R/V Bailey, which will monitor VHF-FM channel 16. The buoy will be in the water from approximately 08 May to 18 Jul 2023. For more information, contact Drew Maczko, at (361) 549-3178 or email at drew.maczko@noaa.gov.

Chart 18523

LNM: 18/23

COLUMBIA RIVER – ST HELENS TO VANCOUVER – HENRICI CHANNEL – Current measuring buoy

NOAA will be deploying a yellow, oceanographic data collection buoy to measure currents in the Columbia River on 08 May 2023 near Knapp Point Light 19 (LLNR 11135) at RM 95, in approximate location 45-44-43.86 N, 122-45-31.44 W. The buoy has a yellow light with a group flashing (5) every 20 seconds characteristic. The buoy will be deployed from NOAA's R/V Bailey, which will monitor VHF-FM channel 16. The buoy will be in the water from approximately 08 May to 18 Jul 2023. For more information, contact Drew Maczko, at (361) 549-3178 or email at drew.maczko@noaa.gov.

Chart 18525

LNM: 18/23

OREGON – WILLAMETTE RIVER – PORT OF PORTLAND – Bridge Notice

The Coast Guard intends to approve two temporary deviations from the normal operating schedule that governs the Steel Railroad-Highway Bridge (LLNR 14955.3) across the Willamette River, RM 12.1. The Steel Bridge need not open the upper lift to marine traffic for the dates and times listed below. These deviations support Rose Festival Parade events. The lower lift span of the Steel Bridge operates in accordance with 33 CFR 117.5 (open on single). When the lower lift is in the closed-to-navigation position, the bridge provides 26 feet of vertical clearance above Columbia River Datum 0.0; and in the open-to-navigation position with the upper lift in the closed-to-navigation position, the vertical clearance is 71 feet above Columbia River Datum 0.0. The Steel Bridge will be able to open the lower deck, and the upper deck if required, for emergencies. This part of the Willamette River does not have an immediate alternate route for vessels to pass. Vessels able to pass through the Steel Bridge with the lower deck in the closed or open-to-navigation position, or the upper deck in the closed-to-navigation position may do so at any time. The normal operating schedule for the Steel Bridge upper lift is in accordance with 33 CFR § 117.897(c)(3)(ii).

Scheduled events / times of approved deviations:

- Rose Festival Starlight Parade from 1900 – 2330 on 03 Jun 2023;
- Rose Festival Grand Floral Parade from 0700 – 1300 on 10 Jun 2023.

If any mariner cannot support these deviation requests, please submit comments by 10 May 2023 at d13-smb-d13-bridges@uscg.mil. For more information on the closures of the Steel Bridge contact Keith Wagner at kcwagner@UP.com.

Chart 18526

LNM: 17/23

COLUMBIA RIVER AND SNAKE RIVER – 2023 summer lockage schedule for recreational vessels

The USACE Walla Walla District will be implementing the 2023 summer lockage schedule for the passage of recreational vessels through the following navigation locks:

- | | |
|---------------------------------|---|
| - McNary Lock and Dam | Columbia River Mile 292 (541) 922-2231 |
| - Ice Harbor Lock and Dam | Snake River Mile 9.7 (509) 543-3231 |
| - Lower Monumental Lock and Dam | Snake River Mile 41.6 (509) 282-7231 |
| - Little Goose Lock and Dam | Snake River Mile 70.3 (509) 399-2233 x231 |
| - Lower Granite Lock and Dam | Snake River Mile 107.5 (509) 843-2231 |

The following annual recreational craft lockage schedules will be implemented for all the locks beginning 15 May through 15 Sep 2023:

Upstream Direction Times:	0900,	1200,	1500,	1800,	2100
Downstream Direction Times:	0930,	1230,	1530,	1830,	2130

When a recreational vessel lockage schedule is in effect, recreational vessels will only be allowed to lock through at the times designated for such

lockages and they will take precedence over commercial vessels. Commercial vessels will continue to be locked through upon arrival except during the times specified for recreational vessel lockages. At the discretion of the lock operator, recreational vessels may be allowed to lock through with commercial craft. USACE will consider special lockages, outside the above scheduled lockage times, for flotillas or other unique activities sponsored by yacht clubs, marinas, and other groups, provided advance (at least 24-hours) arrangements have been made with the appropriate control room operator. Everyone in the vessel must be wearing a personal floatation device throughout the duration of the lockage. All vessel owner/operators lock through at their own risk and must follow the directions of the lock operator when using the locks or operating in the vicinity of the locks. The lock operator has final authority on the suitability of a craft for lockage. Information on the locks, including how to safely lock a recreational vessel is available at <https://www.nww.usace.army.mil/Missions/Navigation/>. For additional information on this matter please call the Walla Walla Operations Division, at telephone (509) 527-7364, or email Kenneth.E.Koebberling@usace.army.mil.

Charts: 18546 18547 18548

LNLM: 17/23

IDAHO – LOWER GRANITE LAKE – CLEARWATER RIVER – Bridge construction notice

Wadsworth Brothers Construction Company will conduct partial demolition and reconstruction of the US-12 Memorial Bridge, AKA the Clearwater Memorial Highway Bridge (LLNR 14072), from 10 Jul 2023 until 11 Sep 2024. The bridge is located at the City of Lewiston, Idaho at river mile 2.0 of the Clearwater River. Work will occur 7 days per week, up to 24 hours per day. Work includes partially demolishing and reconstruction of the existing bridge in two phases, with one half of the bridge affected in each phase. Temporary navigation channels will be marked with red and green buoys with red or green flashing lights, respectively. Depending on the phase of work, the temporary navigation channel will either be between piers 2 and 3 (span 3) or between piers 3 and 4 (span 4). At least one temporary navigation channel will be available at all times, with some short-term closures required for not longer than three hours per day. Any closures will be approved by the Coast Guard. Each temporary navigation channel will have minimum navigation clearances of 23.06' vertical and 107.79' horizontal. Directional signage and a "no wake" zone will also be placed on both the upstream and downstream locations to direct and advise mariners of the designated navigation channels. The work will be aided by one or more work skiffs and barges. Barges will be marked by white lights on all four corners. Mariners are advised to use caution while transiting the area. For additional information contact Linn Bogart, Project Manager, at (801) 509-8808 or lbogart@wadsbro.com.

Chart 18548

LNLM: 17/23

WASHINGTON – PUGET SOUND – PORT MADISON AND PORT ORCHARD – Temporary lighted buoy deployed

NOAA's Pacific Marine Environmental Laboratory deployed a temporary research lighted buoy on 21 Apr 23, approximately 1.3 NM east of the northern entrance to Agate Pass, in approximate position 47-43-29.8 N, 122-31-18.8 W. The buoy is yellow and grey, 4 feet round and marked with a flashing yellow four seconds (FL Y 4s) light. This buoy is expected to be deployed until 18 May 23. For more information, contact Cabot Zucker at (425) 477-9554 or email at cabot.zucker@noaa.gov.

Charts: 18441 18473

LNLM: 17/23

WASHINGTON – LAKE WASHINGTON SHIP CANAL – UNION BAY REACH – Bridge Deviation (Revised from 16/23)

The Coast Guard has issued a temporary deviation from the operating schedule that governs the University Street Bridge (LLNR 18235), mile 4.3, and the Montlake Street Bridge (LLNR 18240), mile 5.2, across the Lake Washington Ship Canal, at Seattle, Washington. The deviation period is from 0800 – 0900 on 21 May 2023. This deviation allows the draw spans to remain in the closed-to-navigation position and need not open to marine traffic for the Beat-the-Bridge foot race. Vessels which do not require bridge openings may continue to transit beneath the bridge during the closure period. The subject 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 designated date/time. For information, contact Danny McReynolds at (206) 220-7234.

Chart 18447

LNLM: 17/23

IDAHO – GPS testing

US Strategic Command has proposed GPS testing encompassing portions of southwest Idaho, eastern Oregon, and northern Nevada. The center point of the test will be at position 42-30-05.6 N, 115-46-11.4 W with a radius of 180 NM. The GPS navigation signal may be unreliable due to testing on GPS frequencies used by shipboard navigation and handheld systems. Systems that rely on GPS, such as e-911, AIS and DSC, may be affected. The testing frequencies will be GPS L1 and L2. Testing dates and times are as listed below, using Pacific Daylight Time as local time:

0900 – 1500 on 13 Jun 23;
0900 – 1500 on 14 Jun 23;
0900 – 1500 on 15 Jun 23;
0900 – 1500 on 16 Jun 23;
0900 – 1500 on 17 Jun 23;

For additional information or to express concerns, contact the Coast Guard Navigation Center at (703) 313-5900 or at <https://www.navcen.uscg.gov/?pageName=dgpsSiteInfo¤tOutages>.

LNLM: 17/23

WASHINGTON – SPOKANE RIVER – SPOKANE VALLEY – Bridge construction notice

BNSF Railway Company (BNSF) is starting construction on the new BNSF Railroad Bridge 62.6B located over the Spokane River at River Mile 85.5, in Spokane Valley, WA, at approximate location 47-41-24 N, 117-13-57 W. Contractors will be mobilizing in April 2023 and will be working below the Ordinary High-Water Mark (OHWM) of the river with various construction details for the new bridge through May 2024. A temporary work bridge will be constructed on the downstream (north) side of the existing BNSF bridge. Work will include the installation of an estimated 23 temporary piles. Cranes and other support equipment and materials will be staged on the work bridge throughout the duration of the project. Work will be within and along the BNSF right-of-way (ROW). Hours of construction activities will generally be during daylight hours, Monday thru Friday. The bridge contractor, Hamilton Construction, will have a work boat to provide safety and other on-water project support. The temporary work bridge will have temporary safety navigation lights and work zone buoys in accordance with the Navigation Rules (COLREGS-Inland).

Enclosure (4) of LNM 18/23 displayed the project vicinity, locations of high and low-water work areas, the temporary work bridge and new bridge configurations, and the proposed navigation envelope. Applicable changes to the work locations and activities will be updated, if needed, by a subsequent LNM as construction progresses. At all times, navigational safety buoys and/or signage, along with safety lighting for the work areas will be in place. At least one of the four temporary work bridge spans which align with the navigational envelope of the existing bridge will remain unobstructed during the project for vessel traffic. Vertical clearance of the existing bridge will be unchanged. The mariners should be aware of the work zone when travelling beneath the work bridge and new bridge construction areas, and should be vigilant for cables, buoys, falling debris, tools, etc. The point of contact for the bridge contractor, Hamilton Construction, Chris VanderPloeg can be reached at (541) 954-8366; CVanderPloeg@hamil.com. For additional information contact the BNSF Project Engineer, Kyle Leatham (425) 210-8084; Kyle.Leatham@BNSF.com.

LNM: 16/23

WASHINGTON – GPS testing

US Strategic Command has proposed GPS testing encompassing the entirety of western Washington, including the waters of Puget Sound, the Salish Sea, the Strait of Juan de Fuca, and coastal waters including Grays Harbor and Willapa Bay. The center point of the test will be at position 47-43-17.1 N, 122-42-52.1 W with a radius of 104 NM. The GPS navigation signal may be unreliable due to testing on GPS frequencies used by shipboard navigation and handheld systems. Systems that rely on GPS, such as e-911, AIS and DSC, may be affected. The testing frequencies will be GPS L1 and L2. Testing dates and times are as listed below, using Pacific Daylight Time as local time:

- 0500 – 0900 and 1200 – 1600 on 24 Jul 23;
- 0500 – 0900 and 1200 – 1600 on 25 Jul 23;
- 0500 – 0900 and 1200 – 1600 on 26 Jul 23;
- 0500 – 0900 and 1200 – 1600 on 27 Jul 23;

For additional information or to express concerns, contact the Coast Guard Navigation Center at (703) 313-5900 or at <https://www.navcen.uscg.gov/?pageName=dgpsSiteInfo¤tOutages>.

Charts: 18400 18440 18480 18500

LNM: 16/23

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
765.5	NOAA Environmental Lighted Buoy 46005	LT EXT	18007	0197-20	08/20	
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	
11455	Camas Slough Range Front Light	LT EXT/STRUCT DMGD	18531	0769-22	42/22	
12230	Lake Celilo Daybeacon 27	STRUCT DMGD	18533	0125-23	05/23	
12980	Lake Wallula West Channel Junction Light W	STRUCT DEST/TRLB	18542	0208-20	09/20	
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	
15590	Point Chehalis Range Rear Light	DAYMK MISSING	18502	0298-23	17/23	
15635	Grays Harbor South Reach Light 16	LT EXT	18502	0325-23	19/23	
17360	Nisqually Flats Light 3	STRUCT DEST/TRLB	18448	0404-21	24/21	
17595	Kilisut Harbor Buoy 2	MISSING	18464	0126-23	05/23	
18709	Oak Harbor Lighted Buoy 11	LT EXT	18428	0255-23	14/23	
18710	Oak Harbor Light 11	STRUCT DEST/TRLB	18428	0652-21	39/21	
19325	Davidson Rock Light 1	DAYMK MISSING	18421	0277-23	16/23	
19480	Cypress Reef Junction Daybeacon C	DAYMK MISSING	18424	0512-22	29/22	

DISCREPANCIES (FEDERAL AIDS) CORRECTED

LLNR	Aid Name	Status	Chart No.	BNM Ref.	LNM St	LNM End
10385	Puget Island Range Front Light	RELIGHTED	18523	None	19/23	19/23

DISCREPANCIES (PRIVATE AIDS)

LLNR	Aid Name	Status	Chart No.	BNM Ref.	LNM St	LNM End
651.1	Pacwave South Spotter Lighted Buoy S	MISSING	18580	0185-23	10/23	
651.2	Pacwave South Research Lighted Buoy	MISSING	18580	0137-23	06/23	
651.3	Pacwave South Spotter Lighted Buoy N	MISSING	18580	0138-23	06/23	
10830	Rainier Anchorage Lighted Buoy R	LT EXT	18524	0771-22	42/22	
11247	Hayden Island Water Monitoring Lighted Buoy A	MISSING	18526	0413-21	25/21	
17126	Tacoma Harbor Regulatory Buoys (3)	MISSING	18453	0613-22	34/22	
19023	Padilla Bay Research Lighted Buoy	MISSING	18424	0824-22	44/22	
19755	Pearl Island Dock Light	LT IMCH	18421	0963-22	51/22	

DISCREPANCIES (PRIVATE AIDS) CORRECTED

LLNR	Aid Name	Status	Chart No.	BNM Ref.	LNM St	LNM End
10928	Sandy Island Anchorage Lighted Buoy "S"	RELIGHTED	18524	0321-23	12/22	19/23

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
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	
15595	Grays Harbor Channel Lighted Whistle Buoy 11	RELOCATED FOR DREDGING	18502	0197-23	11/23	
15655	Grays Harbor South Reach Lighted Gong Buoy 21	RELOCATED FOR DREDGING	18502	0196-23	11/23	
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
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						
(Temp) ADD	NATIONAL DOCK CHANNEL BUOY 3				CGD01	074-02-48.001W
	Green can				at 40-41-09.001N	
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: 31/22	NAD 83		19/23
<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						
DELETE	NOAA Environmental Lighted Buoy 46T29				CGD13	124-34-28.084W
					46-08-28.058N	
530	35th Ed.	01-DEC-15	Last LNM: 34/22	NAD 83		19/23
<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						
DELETE	NOAA Environmental Lighted Buoy 46T29				CGD13	124-34-28.084W
					46-08-28.058N	
18003	20th Ed.	01-NOV-06	Last LNM: 23/21	NAD 83		19/23
<i>Chart Title: Cape Blanco to Cape Flattery</i>						
Main Panel 1651 CAPE BLANCO TO CAPE FLATTERY. Page/Side: N/A						
DELETE	NOAA Environmental Lighted Buoy 46T29				CGD13	124-34-28.084W
					46-08-28.058N	
18007	33rd Ed.	01-FEB-09	Last LNM: 23/21	NAD 83		19/23
<i>Chart Title: San Francisco to Cape Flattery</i>						
Main Panel 1652 SAN FRANCISCO TO CAPE FLATTERY. Page/Side: N/A						
DELETE	NOAA Environmental Lighted Buoy 46T29				CGD13	124-34-28.084W
					46-08-28.058N	
18500	31st Ed.	01-AUG-19	Last LNM: 23/21	NAD 83		19/23
<i>Chart Title: Columbia River to Destruction Island</i>						
Main Panel 1730 COLUMBIA RIVER TO DESTRUCTION ISLAND --. Page/Side: -						
DELETE	NOAA Environmental Lighted Buoy 46T29				CGD13	124-34-28.084W
					46-08-28.058N	
18520	28th Ed.	01-AUG-19	Last LNM: 31/17	NAD 83		19/23
<i>Chart Title: Yaquina Head to Columbia River; Netarts Bay</i>						
CHART OR - YAQUINA HEAD TO COLUMBIA RIVER. Page/Side: N/A						
DELETE	NOAA Environmental Lighted Buoy 46T29				CGD13	124-34-28.084W
					46-08-28.058N	
18525	38th Ed.	01-JUL-16	Last LNM: 51/21	NAD 83		19/23
<i>Chart Title: Columbia River Saint Helens to Vancouver</i>						
Main Panel 1742 COLUMBIA RIVER SAINT HELENS TO VANCOUVER. Page/Side: A						
LAST EDITION	No new editions of chart 18525 will be published. It will be canceled on 30-Aug-23. Comparable or larger scale Electronic Navigational Chart (ENC) coverage is available. See "Cancellation of NOAA Paper and Raster				NOS	--

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 (Revised from LNM 13/23)

The U.S. Coast Guard is replacing the following incandescent lantern with LED lanterns at sites on the Columbia River, Willapa Bay 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.

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 18523

LNM: 16/23

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.

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.

Toliva Shoal Isolated Danger Lighted Bell Buoy DTS (LLNR 17265)
Blakely Island Shoal Isolated Danger Lighted Buoy DS (LLNR 19430)

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

WASHINGTON – STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA – Reduction to the nominal range of Point Roberts Light

The U.S. Coast Guard is reducing the intensity of Point Roberts Light (LLNR 19965) from 16 NM to 14 NM to facilitate the installation and operation of a LED lantern. The precise intensity change will be from 23,000 candelas to 9,180 candelas (from 16.0 NM to 14.1 NM). This change is expected to occur during the spring of 2023 and will be announced via a Broadcast Notice to Mariners. Mariners are welcome 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.

Chart 18421

LNM: 11/23

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			
<u>Proposed Change Notice(s)</u>			
None			

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: 19/23

SUMMARY OF DREDGING OPERATIONS

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

LNM: 19/23

SUMMARY OF MARINE EVENTS

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

LNM: 19/23

OREGON – UMPQUA RIVER – REEDSPORT – Umpqua River Railroad Bridge test deviation

The Coast Guard has approved a test deviation for the Umpqua River Railroad Bridge (LLNR 9369) across the Umpqua River, mile 11.5, in Reedsport, OR. This test deviation facilitates a test for an operating rule change at the request of the Oregon International Port of Coos Bay. The subject bridge is operating in accordance with 33 CFR 117.893(b) which states the bridge shall be maintained in fully open position, except for the crossing of trains or rail equipment. This test deviation is approved from 0700 on 18 Jan to 0700 on 16 Jul 2023, during which the bridge will be maintained in the closed-to-navigation position, and will open on signal with at least two hours-notice. The subject bridge provides 16 feet of vertical clearance in the closed-to-navigation position above high water. 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 this part of the Umpqua River for tall vessels. For more information on this bridge contact Mike Dunning at mdunning@portofcoosbay.com or (541) 267-7678.

The test deviation will operate as follows:

117.893 Umpqua River

(b) The draw of the Coos Bay Rail Line bridge, mile 11.5 at Reedsport, shall open on signal (by phone 877-978-2292) if at least two hours-notice is given.

Chart 18584

LNM: 04/23

OREGON – SIUSLAW RIVER – Bridge notice

The Cushman Railroad Bridge (LLNR 9573) at Cushman, Oregon, Siuslaw River mile 6.5, will undergo repairs from 27 Feb – 17 Jul 2023. This work will impact the north channel of the swing span bridge 24 hours a day, throughout the maintenance period. The south channel will be open to marine traffic. The bridge will still be able to operate in accordance with the drawbridge operating schedule published in 33 CFR 117.889. Crews will be working from a barge, supported by a tugboat, and will monitor VHF-FM channels 13 and 16. The barge will be anchor at the site with each corner marked with an all-around white light. For more information contact the maintenance crew chief at (503) 991-3102.

Chart 18583

LNM: 05/23

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 Lutz, 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

COLUMBIA RIVER – PACIFIC OCEAN TO HARRINGTON POINT – ASTORIA – Bird management activities

In conjunction with the ongoing, long-term painting and preservation project on the Astoria Highway Bridge (LLNR 10086), ODOT 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, hazing will be most frequent during evening hours. The project is currently working just to the north of the south channel and should have no impact on marine navigation. Hazing activities are expected to begin in March and may continue until 01 Jun 2023. For more information on the APHIS activities, contact wildlife biologist Matt Alex at (503) 530-6445 or Matthew.J.Alex@USDA.gov.

Chart 18521

LNM: 07/23

COLUMBIA RIVER – BONNEVILLE TO THE DALLES – Bridge notice

The Coast Guard has approved a temporary deviation to the operating rule of the Hood River Highway Bridge (LLNR 11933) at Columbia RM 169.8. The Port of Hood River will be replacing span lift cables, and the span will not be able to open to marine traffic from 0001 on 19 May to 2359 on 22 May 2023. The Hood River Highway Bridge provides 67 feet of vertical clearance with the lift span in the closed-to-navigation position. Vessels able to safely pass under the bridge without a lift may do so at any time. Mariners be mindful of fall hazards while transiting under the Hood River Bridge. For more information contact the Port of Hood River, John Mann, at (541) 399-9228.

Chart 18532

LNM: 13/23

SNAKE RIVER – LAKE BRYAN – Bridge notice

WSDOT will be conducting a bridge deck rehabilitation project on the State Route 127 Central Ferry Highway Bridge (LLNR 13757) which crosses the Snake River, near Peyton, Washington, at River Mile 83.2. The work will repair and resurface the existing bridge deck to maintain structural integrity on the north and southbound lanes. Construction will occur between the months of February 2023 and July 2023. Work will be scheduled for 0600 – 1900, Monday – Friday. A containment system will be attached to the bridge 24-hours a day, 7 days per week, and will prevent any falling debris. The containment system will only be in place over half of the navigation channel at any given time and will have a minimum 50 feet of vertical clearance above the full pool elevation. No in-water work is proposed for the project. Mariners are advised to use caution while transiting the area. For additional information, contact the project engineer, Scott Golbek, at (509) 577-1880, or Golbeks@wsdot.wa.gov

Chart 18547

LNM: 05/23

OREGON – WILLAMETTE RIVER – PORT OF PORTLAND – Morrison Bridge notice (Revised from LNM 39/22)

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. This temporary operating rule change is to facilitate Multnomah County's repairs and preservation efforts on the bridge. The Morrison Bridge operates in accordance with 33 CFR 117.897(c)(3)(iv). This temporary rule temporarily 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-FM 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 is currently operational 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 and Broadcast 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.

Construction workers will be on site working Monday through Friday during daylight hours. If delays are experienced, night time/weekend work will be required to finish the project by 31 May 2023. Cautionary signs are installed on the approaching sides of the Hawthorne and Burnside Bridges. Inoperable and operable signs are installed at the Hawthorne and Burnside Bridges. Span operation signs are installed on the piers of the Morrison Bridge. Tug boats and barges will be on scene 24 hours per day, and will move around the construction zone. Mariners may contact tugs and barges on working VHF-FM channel 72 or 16. If a barge is in the navigation channel through the draw span, the vessel shall be moved with 24-hour's notice for navigation requirements. Please navigate through the area at minimum speed producing no wake. A safety fairway utilizing the red and green lighting on the bridge leaf and piers has been established. The inoperable span will have a barge and tug anchored supporting work efforts. For additional information on this event, contact Matt Studer at matt.d.studer@multco.us.

Chart 18526

LNM: 02/23

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

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

WASHINGTON – COWLITZ RIVER – SR-411 Bridge notice

WSDOT will be conducting roadway replacement on the SR-411 Bridge across the Cowlitz River at mile 17.9 near Castle Rock, Washington. The project will begin on 31 Jan 2023 and continue until approximately 18 Dec 2023, weather pending. Containment will reduce the vertical clearance by six feet. The subject bridge's vertical clearance at high water is 8.6 feet and will be reduced to 2.6 feet by containment. The containment will be marked with flashing amber lights. Red and green navigation lights will mark a 50-foot-wide non-reduced vertical clearance span for navigation. The SR-411 bridge is a non-lighted bridge, but due to the vertical clearance being reduced to a hazardous height for marine navigation, warning lights and navigation lights will be installed. Mariners should be cautious of fall hazards. For more information, contact Dan Doumit, WSDOT SW Region at (360) 430-8869 or doumitd@wsdot.wa.gov.

LNM: 04/23

WASHINGTON – PUGET SOUND – SEATTLE TO OLYMPIA – Bridge maintenance (Revised from LNM 51/22)

Pierce County Planning and Public Works is planning to conduct bridge girder repairs on Pier #17 and Pier #20 of Fox Island Highway Bridge (LLNR 17248). The repair work is expected to start on 01 May and be completed by 09 Jun 2023. Piers #17 and #20 are located on the north end (mainland end) of the bridge and are outside of the navigation channel. The navigation channel is between Pier #10 and Pier #11. Most of the work will occur during daylight hours, Monday through Friday, However, some nighttime work will also occur. A barge and/or derrick may be anchored in the vicinity of the work area. Any barge or vessel used to assist the work shall be lighted on all corners with a white light. Mariners are advised to proceed with caution while transiting the work area. For additional information please contact Andrew Davis, P.E., Construction Engineering Supervisor, at (253) 798-6913, or andrew.davis@piercecountywa.gov.

Chart 18448

LNM: 15/23

WASHINGTON – LAKE WASHINGTON SHIP CANAL – Bridge notice

The Coast Guard has approved a temporary deviation from the operating schedule that governs the University Bridge (LLNR 18235) across the Lake Washington Ship Canal at mile 4.3 in Seattle. The bridge will remain in the closed-to-navigation position from 0800 to 0930 on 21 May 2023. The University Bridge provides 30 feet of vertical clearance throughout the navigation channel, and 45 feet of vertical clearance at the center of the draw. The vertical clearance references to the Mean Water Level of Lake Washington. Vessels which do not require bridge openings may continue to transit beneath the bridge during the closure period. The lift span will be required to open, if needed, for vessels engaged in emergency response operations during this closure period. In accordance with 33 CFR 117.35(e), the drawbridge must return to its regular operating schedule immediately at the end of the designated time period. For more information contact Kit Loo at kit.loo@seattle.gov or (206) 684-3669.

Chart 18447

LNM: 13/23

WASHINGTON - LAKE WASHINGTON SHIP CANAL - UNION BAY REACH - SR 520 West Approach Bridge South Bridge Replacement (Revised from LNM 34/22)

American Bridge Company will be constructing the new SR520 West Approach Bridge South extending from the east end of the work trestle that ties into the existing floating bridge and West Navigation Channels. The construction will be supported by crane and material barges along the south side of the work and will continue through May of 2023. During this time, the Contractor will also be removing approximately 2,200ft of temporary work bridge. Mariners are advised to transit with extreme caution when navigating near the project area and be aware that no boaters are permitted between the active work zone and work trestles at any time. For additional information, contact Dennis Suh at (504) 206-6494 or email at dsuh@americanbridge.net.

Chart 18447

LNM: 40/22

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 – PUGET SOUND – EVERETT HARBOR – SNOHOMISH RIVER – Bridge maintenance

The Interstate 5 Highway Bridge (LLNR 18594.1) across the Snohomish River, mile 5.4, in Everett, WA, will be preserved and painted from 12 Jun 2023 to 31 Oct 2024. Containment up to 4 feet will be installed and reduce the vertical clearance of the subject bridge from 66 feet to 62 feet above high water. Containment will be marked with amber flashing lights on the bottom with flashing amber lights (FL Y 6s). The working hours will be Monday through Saturday 0800 – 1800 and some night work 2100 – 0800. No service barges will be on site. Mariners are free to transit under the subject bridge at any time. For more information contact Michael Xipolitas at (330) 550-7192 or at Mikex@vimaspainting.com

Chart 18444

LNM: 15/23

IDAHO – LAKE COEUR D'ALENE – LAKE PEND OREILLE – BNSF Railroad Bridge construction update

BNSF Railway Company (BNSF) is continuing construction on the new BNSF Railroad Bridge 3.9 and starting maintenance work to the existing BNSF

IDAHO – LAKE COEUR D'ALENE – LAKE PEND OREILLE – BNSF Railroad Bridge construction update

Railroad Bridge 3.9 (LLNR 20087) located over Lake Pend Oreille (LPO) Mile 2.7, located approximately at 48-16-20 N, 116-32-39 W, in Sandpoint, ID from the start LPO winter draw-down levels as of 15 Nov 22 through the LPO winter pool or low-water season. There will be two crane-work barge set-ups west of the bridges with support primarily from the East Algoma or geographic south end of the two bridges. Work activities will be focused on repair work to the surface of the exposed during low-water existing bridge's concrete piers, specifically piers 72 through 66 of the existing bridge. Work will be within and along the BNSF right-of-way (ROW). Hours of construction activities will generally be 0700 to 1600, Monday thru Saturday. The tugboat Audrey B will position work barges around the existing piers where work is occurring and provide other on-water project support. The Audrey B can be hailed on VHF-FM channels 73, 13 and 16. At least one of the two lighted, published navigation channels for the existing bridge spans 67 and 68 and spans 36 and 37 of the new bridge will be unobstructed during this work. At least half of the unlighted, but navigable channels of both bridges, will remain unobstructed during work activities. Vertical clearance of the bridges will be unchanged. Crane/work barges will have navigation lights and work zone buoys in accordance with the Navigation Rules (COLREGS-Inland). Enclosure (4) of this LNM displays the project vicinity, locations of high and low-water work areas, typical work barge configurations, and temporary survey post/platform details for this phase of the work activities. Changes to the work locations and activities will be updated by a subsequent LNM in the Spring of 2023. During all phases and locations, the noted navigational buoy-safety lighting for the work areas will be in place. The point of contact for the bridge contractor, Ames Construction, Inc. is Mike Pamperin at (612) 741-6535 or MikePamperin@amesco.com. For additional information contact the BNSF Project Manager, Ryan Kopera, at (913) 284-3467 or Ryan.Kopera@BNSF.com.

Chart 18554

LNM: 50/22

SNAKE RIVER – USACE Walla Walla District 2023 Minimum Operating Pool (MOP) operations and spring spill operations

From April through August 2023, the lower Snake River reservoirs will operate within the Minimum Operating Pool (MOP) ranges. During this time, all lower Snake and lower Columbia River dams will spill for fish passage in accordance with the 2023 Fish Operations Plan. The Fish Operations Plan will be posted prior to 03 Apr on the following website: <http://pweb.crohms.org/tmt/documents/fpp/2023/>.

MOP ranges for each Snake River pool are listed below. (Elevations are in feet using NGVD 29 datum):

Ice Harbor, Lake Sacajawea – 437-438.5

Lower Monumental, Lake Herbert G. West – 537-538.5

Little Goose, Lake Bryan – 633-634.5

Lower Granite, Lower Granite Lake – 733-734.5

Due to recent changes in fish passage spill requirements, USACE anticipates a higher rate of discharge through the spillways compared to previous years, and river navigators may experience strong currents and eddies in the dam tailraces and forebays. If navigators believe river conditions inhibit safe navigation to or from a lock, they may request a temporary adjustment to spill using the contact information below. Contact with lock and dam shift operators should be initiated no later than 30 minutes prior to arriving at the lock, as a requested redistribution or reduction of spill may take as long as 30 minutes to attenuate. Additionally, downstream departures may be delayed for the requested spill change to be implemented and take effect.

McNary Operator at (541) 922-2231. Call Sign WUJ41 McNary.

Ice Harbor Operator at (509)-543-3231. Call Sign WUJ42 Ice Harbor.

Lower Monumental Operator at (509) 282-7231. Call Sign WUJ43 Lower Monumental.

Little Goose Operator at (509) 399-2233 x231. Call Sign WUJ44 Little Goose.

Lower Granite Operator at (509) 843-2231. Call Sign WUJ45 Lower Granite.

Navigators are encouraged to contact dam operators and report any unsafe navigation conditions. District staff will evaluate the effects of this year's operations in conjunction with feedback from river users and coordinate adjustments to spillway gate positioning as appropriate. For additional information contact the NWW Operations Division at (509) 527-7364.

Charts: 18545 18546 18547 18548

LNM: 14/23

WASHINGTON – PUGET SOUND – LAKE WASHINGTON SHIP CANAL – Hiram M. Chittenden Locks Center Miter Gates replacement project

USACE is beginning a maintenance project to replace the center miter gates on the Large Lock chamber. This major project will require several 30-day closures to facilitate demolition, concrete construction, and installation and commissioning of the new miter gates, respectively. There will be at least 15 days between closures to accommodate marine traffic. Additionally, the Small Lock will remain open during these periods and can pass vessels up to 123 feet long and 28 feet wide.

Currently, the large locks are scheduled to be closed to all vessel traffic during the following periods,

Closure 1: 16 Oct 2023 to 14 Nov 2023

Closure 2: 30 Nov 2023 to 29 Dec 2023

Closure 3: 14 Jan 2024 to 12 Feb 2024

Closure 4: 15 Oct 2024 to 13 Nov 2024

Closure 5: 29 Nov 2024 to 28 Dec 2024

The large lock is expected to be fully operational on 29 Dec 2024. For current information about activities at the Locks, visit the Locks' website at <https://www.nws.usace.army.mil/Missions/Civil-Works/Locks-and-Dams/Chittenden-Locks/Closures/>, like them on Facebook

www.facebook.com/chittendenlocks/; follow them on Twitter <http://twitter.com/ChittendenLocks>. For specific questions, mariners may contact the lockmasters at (206) 297-9821.

Chart 18447

LNM: 11/23

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 Hellin at (541) 745-8337 and dan.hellin@oregonstate.edu.

Chart 18580

LNM: 49/21

OREGON – APPROACHES TO YAQUINA AND DEPOE BAY – YAQUINA BAY – Marine construction and demolition (Revised from LNM 45/22)

Bergerson Construction, Inc. will commence pier demolition and construction operations at the Oregon State University Ship Operations Pier on Yaquina Bay in approximate position 44-37-32.19 N, 124-02-42.11 W, from 02 Nov 2022 – 01 Jul 2023, Monday – Friday, from 0700 – 1800 daily. A 60' x 120' sectional spud barge with crane and assistant vessel Bubba B will be monitoring VHF-FM channel 17. A yellow, floating turbidity boom/curtain will be used to surround and identify the work area and white flashing lights will be used to demarcate the barge. Mariners are requested to use caution and reduce wake when transiting the area. Mariners should be aware that during this project, the OSU Dock Light (LLNR 9652) while be discontinued. For additional information, contact Bergerson Construction, Inc. at (503) 325-7130.

Chart 18561

LNM: 46/22

OREGON – TILLAMOOK BAY – Waterway and Aids to Navigation Survey

The Coast Guard is conducting a user survey for Tillamook Bay Bar and Entrance in Oregon. The Coast Guard uses the Waterways Analysis and Management System (WAMS) to validate the adequacy of the existing aids to navigation (ATON) system, as well as to get a better understanding of the uses of each waterway and general safety issues. WAMS focuses on the waterway's present ATON system, marine casualty information, port and harbor resources, changes in recreational and commercial marine vessel usage and future development and dredging projects. The survey is available at the Thirteenth Coast Guard District WAMS website: <https://www.pacificarea.uscg.mil/Our-Organization/District-13/District-Divisions/-dpw/-wams/>. The deadline for survey entries is 31 Jul 2023. For additional information please contact John Moriarty at (206) 220-7274 or email D13-SMB-D13-DPW@uscg.mil.

Chart 18558

LNM: 15/23

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

SNAKE RIVER – LAKE SACAJAWEA TO LOWER GRANITE LAKE – Scientific sensor deployments and recoveries

Pacific Northwest National Laboratory (PNNL) will be deploying, servicing, and recovering underwater scientific instruments in the Snake River from mid-March through November of 2023. Operations will occur approximately every three weeks through the seven-month time period at eight locations at approximate river miles 2, 10, 25, 40, 42, 71, 83, 107, and 108. Research operations will be conducted from the research vessel Raider, which can be reached by phone at (509) 521-5260. Mariners are asked to keep a safe distance from moored research equipment and the research vessel. For more information, contact Scott Titzler at (509) 521-5260.

Charts: 18545 18546 18547 18548

LNM: 12/23

OREGON – PORT OF PORTLAND – WILLAMETTE RIVER – Marine Construction

Stellar J. Corp. will begin dock repair and rehabilitation on and under the ship pier at Terminal 5, Berth 503, on the Port of Portland, Willamette River waterfront on 20 Feb 2023. The project location is approximately 45-38-18.857 N, 122-46-31.215 W, near Willamette River mile 1.4. Construction operations on the pier will take place during day light hours, Monday through Friday, and will continue into the summer months. Although no work will be performed outside of the Terminal 5 dock line, the project requests that vessels transiting the area operate with minimum wake if possible. For more information, contact Mike Klassen at (360) 518-2544 or MikeKlassen@stellarj.com.

Chart 18526

LNM: 07/23

WASHINGTON – APPROACHES TO STRAIT OF JUAN DE FUCA – Olympic Coast National Marine Sanctuary research buoys

The Olympic Coast National Marine Sanctuary (OCNMS) has deployed two unlighted research moorings in the sanctuary which may remain throughout the winter. The first equipment is deployed in position 47-52-34.140 N, 124-44-00.300 W, offshore between James Island and Teahwhit Head. The surface gear consists of an 18-foot halibut pole (with flag and RADAR reflector), a 12-inch low-drag surface float, and an 8-meter-long line attached to the sub-surface gear. Another mooring was set in position 48-10-11.760 N, 124-49-18.000 W, off Cape Alava. This mooring was damaged and there is no visible buoy or gear on the surface. The mooring and some gear remain below the surface in his location and OCNMS will attempt to recover in the near future. Mariners are advised to stay clear of these moorings to avoid entanglement. For more information, contact Lieutenant Junior Grade Haley Glos at (360) 406-2085 or via email at haley.glos@noaa.gov.

Chart 18480

LNM: 40/22

WASHINGTON – APPROACHES TO STRAIT OF JUAN DE FUCA – Acoustic monitoring sensor

The Olympic Coast National Marine Sanctuary (OCNMS) deployed a sub-surface acoustic mooring at the entrance to the Strait of Juan de Fuca, in location 48-29-25.188 N, 125-00-13.428 W, on 23 Sep 2022. OCNMS will maintain the acoustic mooring, named "OC-02", in an effort to achieve

WASHINGTON – APPROACHES TO STRAIT OF JUAN DE FUCA – Acoustic monitoring sensor

continuous acoustic monitoring of the underwater environment at this site over a five-year period. There is no surface gear on this mooring and the top of the float measures 6.2 meters above the sea floor. The sub-surface gear consists of four scientific instruments connected with a combination of chain and Amsteel line. For more information, contact Lieutenant Junior Grade Haley Glos at (360) 406-2085 or via email at haley.glos@noaa.gov.

Chart 18460

LNM: 47/22

WASHINGTON – STRAIT OF GEORGIA AND STRAIT OF JUAN DE FUCA – PUGET SOUND – Bottom Trawl survey

From 24 Apr through 07 Jun 2023, the Washington Department of Fish and Wildlife (WDFW) Marine Fish Science (MFS) Unit and the Toxics-focused Biological Observation System (TBIOS) Team will conduct their annual, joint bottom trawl survey to assess marine fish living in the waters of Puget Sound, including the Strait of Juan de Fuca, Strait of Georgia, San Juan Archipelago, Hood Canal, Central Sound, and South Sound regions. The vessel chartered by WDFW for the survey is the F/V Chasina, a 58-foot seiner/trawler (call sign WYQ-6987), with red hull and red and white superstructure, which will carry WDFW RESEARCH placards posted on both sides of the upper deck. The survey will visit at least 65 science locations throughout the region. For more information on WDFW's MFS unit and the bottomfish programs, visit <https://wdfw.wa.gov/species-habitats/species/bottomfish> or contact Bob Pacunski at (425) 379-2314 (office) or (206) 619-5312 (cell) or email at Robert.Pacunski@dfw.wa.gov. For more information on WDFW's TBIOS program visit <https://wdfw.wa.gov/species-habitats/science/marine-toxics/tbios> or contact Robert Fisk at (366) 688-4841 (cell) or email at Robert.Fisk@dfw.wa.gov.

Charts: 18400 18440 18441 18460

LNM: 10/23

WASHINGTON – PUGET SOUND – APPLE COVE TO KEYPORT – SEATTLE TO BREMERTON – Environmental monitoring buoys

Puget Sound Restoration Fund is installing research buoys with environmental monitoring instruments at 3 locations in the central Puget Sound:

Tyee Shoal/Wing Point (off Bainbridge Island), 47-37-03.000 N, 122-29-29.040 W.

Point Jefferson (off Indianola), 47-44-30.840 N, 122-29-16.440 W.

Edmonds (north of dive park, Shell Creek) 47-49-13.440 N, 122-22-41.160 W.

Each site will have one surface buoy, yellow in color, 2 ft diameter, with flashing yellow light (FL Y (5) 20s). Buoys will be installed on or about 09 Jan 2023 and remain in place until 31 Dec 2024. Mariners are requested to avoid approaching or tying off to the research buoys. For more information, please contact the Restoration Fund at (206) 780-6947 or email info@restorationfund.org.

Charts: 18446 18449

LNM: 49/22

WASHINGTON – PUGET SOUND – SEATTLE TO BREMERTON – ELLIOTT BAY – Marine construction

Pacific Pile & Marine is conducting a marine construction project for the City of Seattle at Pier 58 commencing on 20 Sep 2022 and continuing until June of 2023. The in-water work includes timber pier demolition and pile removal, new piling placement, new concrete construction, habitat improvements and cathodic protection systems. There will also be some demolition work conducted just north of pier 62 near the entrance to Bell Harbor Marina. Work hours are typically 0700 – 1900 daily. Pacific Pile will have multiple assets on scene including the Derrick Barge Pacific Lifter. Crews will monitor VHF-FM channels 18 and 19, for mariners with any questions. For more information, contact Andrew Bickley at (425) 890-0019, or email at andrewb@pacificpile.com.

Chart 18450

LNM: 37/22

WASHINGTON – PUGET SOUND – ELLIOTT BAY – DUWAMISH WATERWAY – Terminal 5 pier construction (Revised from LNM 02/22)

Orion Marine Contractors is conducting 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 and will run through Oct 2023. Work will typically take place from 0700 to 1700, Monday thru Friday. The Orion 1601 Spud Barge and smaller flat deck barges will be conducting the operations. Each floating plant will have all corners marked with steady burn white lights. The barges will often be spudded down, so mariners are requested to keep a minimum 200-foot distance from the operations. The Orion equipment will monitor VHF-FM channel 13. For additional information, please contact Jesse Galligan at (253) 552-1140 or email at jjgalligan@orionmarinegroup.com.

Chart 18450

LNM: 48/22

WASHINGTON – PUGET SOUND – SEATTLE TO BREMERTON – DUWAMISH WATERWAY – Environmental testing (Revised from LNM 41/22)

Anchor QEA will conduct sediment sampling work on the Lower Duwamish Waterway starting on 05 Dec 2022 and extending through May of 2023. The work will be on the 14th Ave Reach from just upstream of the Turning Basin downstream past Slip 2, both inside and outside of the federal navigation channel. This project is EPA-approved and involves small work vessels conducting marine sampling. The planned work schedule is 0700 – 1900, Monday – Friday. Work vessels may be able to move for river traffic. Mariners planning to transit this stretch of the Duwamish are encouraged to contact the vessels in advance via VHF-FM channels 16 or 13, or by calling directly:

M/V Cypress, R/V Cayuse, R/V Tieton, and R/V Stuart at (425) 281-1471

R/V Nancy Anne and R/V Peter R at (206) 418-6173

R/V Carolyn Dow at (206) 550-5202

Mariners can also call the project coordinator, Susan McGroddy, at (206) 251-2129.

Chart 18450

LNM: 47/22

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

The Naval Undersea Warfare Center (NUWC) at Keyport, WA is continuing operations in the vicinity of NUWC between University Point, the Brownsville Marina and Keyport through 23 Dec 2023. 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 call sign for the small craft will be "Keyport Range Control" and will monitor VHF-FM channels 12 & 16. 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 PNW Range Management and Ops Division, Range Control Branch, at (360) 396-2313.

Chart 18446

LNM: 49/22

SAFETY NOTICE – Navigational Range and Sector Light displays on electronic charts

The U.S. Coast Guard has become aware that the Range and Sector Light Characteristic labels are not displayed on Electronic Navigational Charts (ENCs) when used in an Electronic Chart Display and Information System (ECDIS) due to limitations of the S-52 ECDIS display specification. Mariners may query the ENC data directly within ECDIS or refer to the Light List for complete information on Range and Sector Light Characteristics.

LNM: 39/22

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
687.8	NOAA Environmental Lighted Buoy 46T29						Remove from list. 19/23 *

ENCLOSURES

Enclosure 1

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

LNM: 19/23

Enclosure 2

OREGON - WASHINGTON - COLUMBIA RIVER - Summary of Dredging Operations

LNM: 19/23

Enclosure 3

OREGON - WASHINGTON - COLUMBIA RIVER - Summary of Marine Events

LNM: 19/23

Enclosure 4

OREGON – WILLAMETTE RIVER – Bridge construction temporary navigation channel

LNM: 19/23

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

BRIDGE DISCREPANCIES						
Waterway	Light List	Bridge Name	Location	Status	Date Reported	BNM
OREGON COAST						
None						
COLUMBIA RIVER						
	12752	I-82 Highway Bridge (South Bound)	Umatilla, OR	Down river and center span lights extinguished	1/18/2023	0069-23
	13051	Pasco - Kennewick Railroad Bridge	Kennewick, WA	Pier Light extinguished	11/9/2022	0849-22
	13113.5	SR-12 Highway Bridge (west bound)	Pasco, WA	Lights extinguished	12/28/2022	0983-22
	14843	Harry Morgan Highway Bridge	Longview, WA	Lights extinguished	1/13/2023	0055-23
SNAKE RIVER						
	13617	Sargent Railroad Bridge	Lacrosse, WA	Lights extinguished	1/22/2023	0090-23
WILLAMETTE RIVER						
	15152	Wilsonville Railroad Bridge	Wilsonville, OR	Up and down river center green lights extinguished	9/28/2022	None
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
	16072.1	Burlington Northern Railroad Bridge	Aberdeen, WA	Unable to open to marine traffic due to vandalism.	2/1/2023	None
PUGET SOUND						
	16870.1	Spokane Street Bridge	Seattle, WA	Clearance gauge not legible	12/2/2022	None
	16888	South Park Street Bridge	Seattle, WA	Clearance gauge not legible	12/2/2022	None
IDAHO						
	20070	Trail of the Coeur D'Alenes Railroad Bridge	Chatcolet, ID	Following lights are extinguished: downriver center span west green light, downriver west red pier light, upriver center red pier light.	10/11/2022	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						
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
9-May-23	12-May-23	12 Hrs / 7 Days	Columbia River; South Jetty material offload site, Hammond	M/V Heidi Renee	James T	VHF-FM 16 & 72	W-4.7-IW	18/23
1-Jun-23	24-Jun-23	24 Hrs / 7 Days	Columbia River; Puget Island (RM 37+45 to 39+00)	M/V Oregon	Clackamas, Ivanhoff, Williams	VHF-FM 13 & 16	OR side	17/23

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 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
15-May-23	1800-1930	ISC Island Sailing Mondays	Columbia River, Between I-5 and I-205
16-May-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
18-May-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
22-May-23	1800-1930	ISC Island Sailing Mondays	Columbia River, Between I-5 and I-205
23-May-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
25-May-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
26-May-23	2100-2230	Portland Rose Festival Opening	Willamette River from Hawthorne and Morrison Bridge, Portland, OR
26-May-23	1800-1700	Boatnik 2023	Rogue River, Grants Pass, OR
27-May-23	1800-1700	Boatnik 2023	Rogue River, Grants Pass, OR
28-May-23	1800-1700	Boatnik 2023	Rogue River, Grants Pass, OR
29-May-23	1800-1930	ISC Island Sailing Mondays	Columbia River, Between I-5 and I-205, Portland, OR
29-May-23	1800-1700	Boatnik 2023	Rogue River, Grants Pass, OR
29-May-23	0700-1300	Stevenson High School Lewis & Clark Expedition	Columbia River, Astoria, OR
30-May-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
30-May-23	0700-1300	Stevenson High School Lewis & Clark Expedition	Columbia River, Astoria, OR
31-May-23	0700-1300	Stevenson High School Lewis & Clark Expedition	Columbia River, Astoria, OR
1-Jun-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
1-Jun-23	0700-1300	Stevenson High School Lewis & Clark Expedition	Columbia River, Astoria, OR
2-Jun-23	0600-1800	Water Follies Spring Testing	Columbia River, Kennewick, WA
2-Jun-23	0700-1300	Stevenson High School Lewis & Clark Expedition	Columbia River, Astoria, OR
4-Jun-23	1200-1700	PYC Rose Festival Regatta	Columbia River, Between I-5 and I-205
5-Jun-23	1800-1930	ISC Island Sailing Mondays	Columbia River, Between I-5 and I-205
6-Jun-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
7-Jun-23	1730-2030	PYC Mauni Elliot	Columbia River, Between I-5 and I-205
8-Jun-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
10-Jun-23	0700-1800	Portland Rosefest Dragon Boat Races	Willamette River between Marquam and Hawthorne Bridges, Portland, OR
11-Jun-23	1200-1700	SYSCO Single handed BC Race	Columbia River, Between I-5 and I-205
12-Jun-23	1800-1930	ISC Island Sailing Mondays	Columbia River, Between I-5 and I-205
13-Jun-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
14-Jun-23	1730-2030	PYC Mauni Elliot	Columbia River, Between I-5 and I-205
15-Jun-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
17-Jun-23	1200-1700	RCYC Medium Distance Race	Columbia River, Between I-5 and I-205
19-Jun-23	1800-1930	ISC Island Sailing Mondays	Columbia River, Between I-5 and I-205
20-Jun-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
21-Jun-23	1730-2030	PYC Mauni Elliot	Columbia River, Between I-5 and I-205
22-Jun-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205

MARINE EVENTS

Enclosure (3)

24-Jun-23	2200-2230	Umatilla Landing Days Fireworks	Columbia River, Umatilla, OR
25-Jun-23	0900-1030	Portland SharkFest Swim	Willamette River from Hawthorne Bridge to USS Blueback, Portland, OR
25-Jun-23	1200-1700	SYSCO Grow the Sport BC Race	Columbia River, Between I-5 and I-205
26-Jun-23	1800-1930	ISC Island Sailing Mondays	Columbia River, Between I-5 and I-205
27-Jun-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
28-Jun-23	1730-2030	PYC Mauni Elliot	Columbia River, Between I-5 and I-205
29-Jun-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
1-Jul-23	2200-2230	Ilwaco Independence Day Fireworks at the Port	Columbia River, Port of Ilwaco, WA
3-Jul-23	1800-1930	ISC Island Sailing Mondays	Columbia River, Between I-5 and I-205
3-Jul-23	2200-2230	Mill Casino Independence Day Fireworks	Coos Bay, North Bend, OR
3-Jul-23	2200-2230	Waldport 4th of July	Alsea Bay, Waldport, OR
4-Jul-23	2200-2230	2023 Fireworks over the Bay	Coos Bay, Coos Bay, OR
4-Jul-23	2200-2230	Astoria-Warrenton 4th of July	Columbia River, Astoria, OR
4-Jul-23	2200-2230	Bandon 4th of July	Coquille River, Bandon, OR
4-Jul-23	2200-2230	Brookings 4th of July	Brookings, OR
4-Jul-23	2200-2230	Cascade Locks 4th of July	Columbia River, Cascade Locks, OR
4-Jul-23	2200-2230	Clatskanie Heritage Days	Columbia River, Clatskanie, OR
4-Jul-23	2200-2230	Florence Independence Day Celebration	Port of Siuslaw, Florence, OR
4-Jul-23	2200-2230	Fort Dalles 4th of July	Columbia River, The Dalles, OR
4-Jul-23	2200-2230	Oaks Park 4th of July	Willametter River, Portland, OR
4-Jul-23	2200-2230	Hood River 4th of July	Columbia River, Hood River, OR
4-Jul-23	2200-2230	July 4th Party at the Port of Gold Beach	Gold Beach, OR
4-Jul-23	2200-2230	Lincoln City 4th of July	Salishan Spit, Siletz Bay, Lincoln City, OR
4-Jul-23	2200-2230	Newport 4th of July	Yaquina Bay, Newport, OR
4-Jul-23	2200-2230	Port Orford 4th of July	Port Orford, OR
4-Jul-23	2200-2230	Washougal 4th of July	Columbia River, Washougal, WA
4-Jul-23	2200-2230	Waterfront Blues Festival Fireworks	Willamette River between Marquam and Hawthorne Bridges, Portland, OR
4-Jul-23	2200-2230	Waverly Country Club 4th of July	Willamette River, Portland, OR
4-Jul-23	2200-2230	Yachats 4th of July	Yachats, OR
4-Jul-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
6-Jul-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
7-Jul-23	0800-1700	Kiteboard 4 Cancer	Columbia River, Hood River, OR
8-Jul-23	0800-1700	Kiteboard 4 Cancer	Columbia River, Hood River, OR
8-Jul-23	0800-1700	Gorge Outrigger Canoe Race	Columbia River, Stevenson, WA
8-Jul-23	2200-2230	Rainier Days in the Park	Columbia River, Rainier, OR
9-Jul-23	0800-1700	Kiteboard 4 Cancer	Columbia River, Hood River, OR
9-Jul-23	0600-1600	Portland Bridge Swim	Willamette River, from Sellwood Bridge to St. John's Bridge, Portland, OR
10-Jul-23	1800-1930	ISC Island Sailing Mondays	Columbia River, Between I-5 and I-205
10-Jul-23	1100-1600	Gorge Downwind Champs	Columbia River, Home Valley to Hood River
11-Jul-23	1100-1600	Gorge Downwind Champs	Columbia River, Home Valley to Hood River

MARINE EVENTS

Enclosure (3)

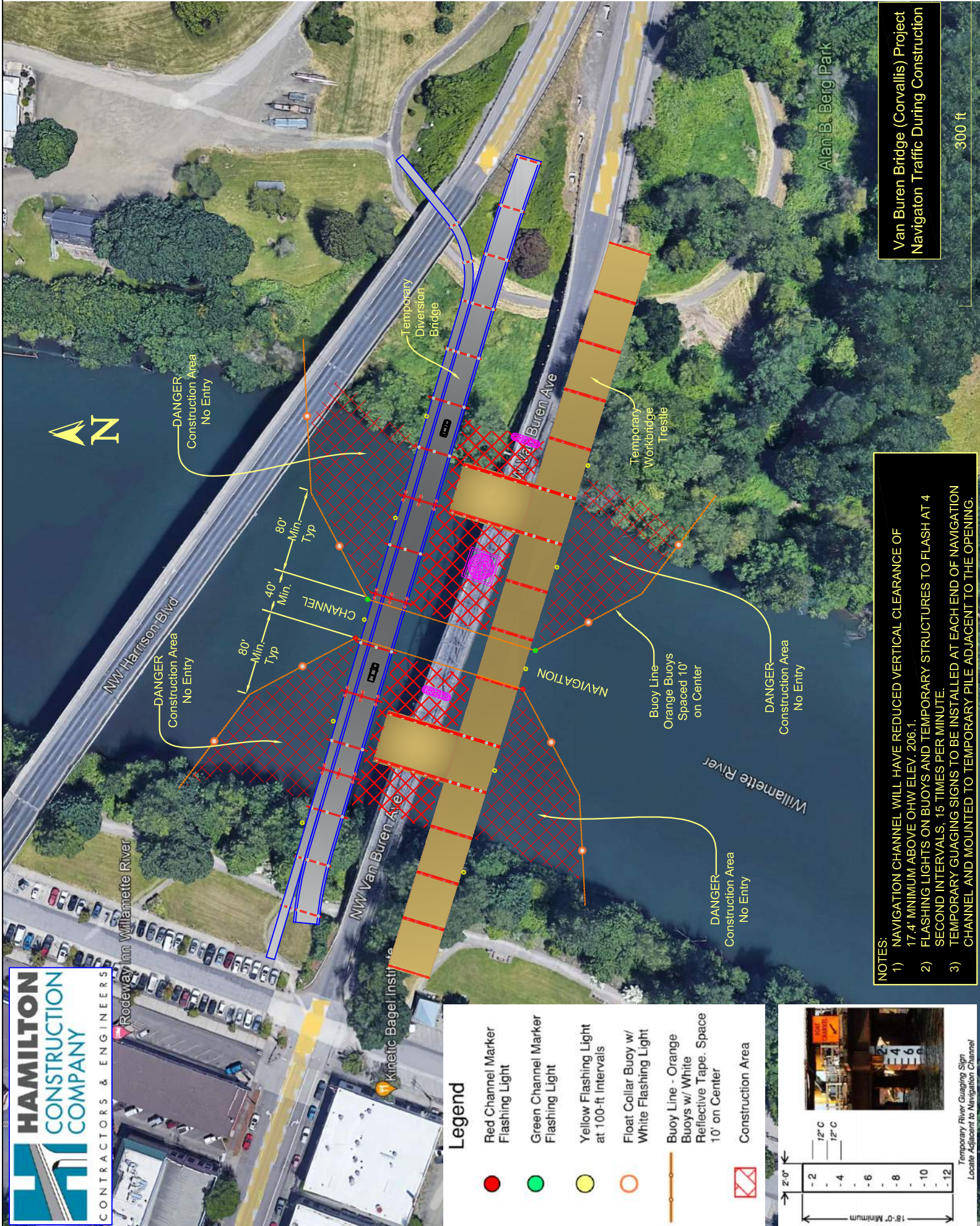
11-Jul-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
12-Jul-23	1100-1600	Gorge Downwind Champs	Columbia River, Home Valley to Hood River
13-Jul-23	1100-1600	Gorge Downwind Champs	Columbia River, Home Valley to Hood River
13-Jul-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
14-Jul-23	1100-1600	Gorge Downwind Champs	Columbia River, Home Valley to Hood River
15-Jul-23	1100-1600	Gorge Downwind Champs	Columbia River, Home Valley to Hood River
15-Jul-23	1200-1700	SYSCO One Design Races	Columbia River, Between I-5 and I-205
15-Jul-23	1100-1600	Smoke on the Water Hobie Cat Regatta	Columbia River, off Skamokawa Vista Park, Skamokawa, WA
16-Jul-23	1200-1700	PYC Family Night BC Race	Columbia River, Between I-5 and I-205
17-Jul-23	1800-1930	ISC Island Sailing Mondays	Columbia River, Between I-5 and I-205
18-Jul-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205
20-Jul-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205, Portland, OR
23-Jul-23	1200-1700	RCYC Pirates Beer Can Race	Columbia River, Between I-5 and I-205, Portland, OR
24-Jul-23	1800-1930	ISC Island Sailing Mondays	Columbia River, Between I-5 and I-205, Portland, OR
25-Jul-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205, Portland, OR
27-Jul-23	1730-2030	SYSCO Summer Evening Series	Columbia River, Between I-5 and I-205, Portland, OR
28-Jul-23	0600-1800	Tri-Cities Columbia Cup	Columbia River, Kennewick, WA
29-Jul-23	0800-1900	HR1D Regatta	Hood River, OR
29-Jul-23	1200-1700	SYSCO St Helens Race & Cruise	Columbia River, Day Mark 39 St Helens, OR
29-Jul-23	0600-1800	Tri-Cities Columbia Cup	Columbia River, Kennewick, WA
30-Jul-23	0800-1900	HR1D Regatta	Hood River, OR
30-Jul-23	0600-1800	Tri-Cities Columbia Cup	Columbia River, Kennewick, WA
31-Jul-23	1800-1930	ISC Island Sailing Mondays	Columbia River, Between I-5 and I-205, Portland, OR

MARINE EVENTS

Enclosure (3)

SECTOR PUGET SOUND MARINE EVENTS

EVENT DATE	TIME	EVENT NAME	EVENT LOCATION
5/11/2023 - 5/14/23	All day	Pacific Northwest Offshore	Columbia River Bar, up the Washington Coast, through the Strait of Juan De Fuca to Buoy V21 at the entrance to Victoria Harbor
12-May-23	1800-2000	POYC Spring Friday Series	Sinclair Inlet
13-May-23	0930-1630	MSA Mid-Distance Series Sailboat Races	Port Gardner and Possession Sound
13-May-23	1000-1300	Commencement Bay Race	Commencement Bay
13-May-23	1200-1730	Penn Cove Water Festival	Penn Cove
13-May-23	1800-2000	POYC Spring Friday Series	Sinclair Inlet
13-May-23	1000-1600	Protection Island 1	Port Townsend and Admiralty Inlet
13-May-23	1100-1800	Vashon Island Race (Tri-Island #2)	Shilshole Bay to Vashon Island and back
15-May-23	1030-2000	Ballard Cup Series 1	Shilshole Bay
15-May-23	1000-1400	Vintage Hydroplane Test	Lake Washington; Stan Sayres Memorial Park
17-May-23	1800-2000	Wed Weekly Series	Port Townsend
18-May-23	1830-2130	TTPYC 2023 Spring Sailboat Racing Series	Puget sound waters in the vicinity of Des Moines Marina
18-May-23	1200-1500	SBYC Duck Dodge Races	Sequim Bay
19-May-23	1100-1900	POYC Invitational	Sinclair Inlet to Port Orchard
19-May-23	1800-2000	Weekly Friday Series	Port Townsend
20-May-23	0900-1500	Windermere Regatta	IVO Northeast Guemes Island, Jack Island, and Vendovi Island
21-May-23	0900-1500	Windermere Regatta	IVO Northeast Guemes Island, Jack Island, and Vendovi Island
22-May-23	1730-2000	Ballard Cup Series 2	Shilshole Bay
23-May-23	1000-1800	Taking Care of Business Regatta	Brownsville, Agate Pass, Burke Bay
24-May-23	1800-2000	Wed Weekly Series	Port Townsend
25-May-23	1200-1500	SBYC Duck Dodge Races	Sequim Bay
26-May-23	1800-2000	Weekly Friday Series	Port Townsend
5/27/2023 - 5/29/23	All day	Swiftsure International Yacht Race	Strait of Juan de Fuca
28-May-23	1200-1830	Ski to Sea	Bellingham Bay
31-May-23	1800-2000	Wed Weekly Series	Port Townsend



Legend

- Red Channel Marker Flashing Light
- Green Channel Marker Flashing Light
- Yellow Flashing Light at 100-ft Intervals
- Float Collar Buoy w/ White Flashing Light
- Buoy Line - Orange Buoys w/ White Reflective Tape, Space 10' on Center
- Construction Area

Temporary River Gauging Sign
Locate Adjacent to Navigation Channel

The diagram shows a vertical sign with a scale from -2 to -12 feet. A water level is indicated at approximately -4 feet. A temperature gauge shows 12°C. A note indicates '18'-0" Minimum' clearance.

- NOTES:**
- 1) NAVIGATION CHANNEL WILL HAVE REDUCED VERTICAL CLEARANCE OF 17.4' MINIMUM ABOVE OHW ELEV. 206.1.
 - 2) FLASHING LIGHTS ON BUOYS AND TEMPORARY STRUCTURES TO FLASH AT 4 SECOND INTERVALS, 15 TIMES PER MINUTE.
 - 3) TEMPORARY GAUGING SIGNS TO BE INSTALLED AT EACH END OF NAVIGATION CHANNEL AND MOUNTED TO TEMPORARY PILE ADJACENT TO THE OPENING.

Van Buren Bridge (Corvallis) Project
 Navigaton Traffic During Construction

300 ft