



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
1201 NE Lloyd Boulevard, Suite 1100
PORTLAND, OR 97232-1274

Refer to NMFS Nos:

WCRO-2023-00526 (Nevin Dock)
WCRO-2023-02198 (Benedetti/Tiedy PRF)
WCRO-2024-00900 (Lee Family Dock)
WCRO-2024-01562 (Fogg/Kramer Dock)
WCRO-2024-02770 (Scott Dock)
WCRO-2025-00298 (Duus Dock)

April 3, 2025

P. Allen Atkins
Chief, Regulatory Branch
U.S. Army Corps of Engineers, Seattle District
4735 East Marginal Way South, Bldg. 1202
Seattle, Washington 98134-2388

Re: Endangered Species Act Section 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Issuance of Permits for Six Dock Projects under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act for Actions Related to Structures in the Columbia River: Nevin Dock, Benedetti/Tiedy PRF, Lee Family Dock, Fogg/Kramer Dock, Scott Dock, and Duus Dock.

Dear Mr. Atkins:

Between April 25, 2023, and February 12, 2025, we received six letters from the U.S. Army Corps of Engineers (USACE), Seattle District, requesting initiation of consultation with the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) pursuant to section 7 of the Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531 *et seq.*) for the USACEs' permitting replacements of, repairs to, or new construction of in-water and overwater structures in the Columbia River. Based on the locations of the proposed projects and their similar impacts on Endangered Species Act (ESA)-listed species and their critical habitat designated under the ESA, specifically in the Lower Columbia River (LCR), and in an effort to expedite and streamline the ESA consultation processes, we have batched these actions into a single Condensed Biological Opinion.

Your requests qualified for our expedited review and analysis because they meet our screening criteria and contained all required information on, and analysis of, your proposed actions and their potential effects to listed species and designated critical habitat.

We reviewed the USACE's consultation requests and related initiation packages. Where relevant, we have adopted the information and analyses you have provided and/or referenced but only after our independent, science-based evaluation confirmed they meet our regulatory and scientific standards.

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In our biological opinion below, we indicate what parts of your documents we have incorporated by reference and where that information is being incorporated. Specifically, we adopt by reference sections of the USACE's Biological Assessments (BAs) or Biological Evaluations (BEs) and associated initiation package for the following projects:

BE for the Nevin Dock project WCRO-2023-00526 (AES, 2022).

- Section 1 for the description of the proposed action and action area; and
- Section 2 for the environmental baseline.

BE for the Benedetti/Tiedy Pier Ramp Float (PRF) project WCRO-2023-02198 (AES, 2024a):

- Section 1 for the description of the proposed action and action area;
- Section 2 for the environmental baseline; and
- Section 3 for the status of the species and critical habitat.

BA for the Lee Family Dock project WCRO-2024-00900 (AES, 2024b):

- Section 2 for the description of the proposed action and action area;
- Section 3.1–3.4 for the status of the species and critical habitat; and
- Section 3.5 for the environmental baseline.

BA for the Fogg/Kramer Dock project WCRO-2024-01562 (Flowing Solutions, 2024):

- Page 2–5 for the description of the proposed action and action area;
- Page 5–8 for the status of the species and critical habitat;
- Page 9–14 for the effects of the action on ESA species and critical habitat; and
- Page 15 for the cumulative effects.

BA for the Scott Dock project WCRO-2024-02770 (TEC, 2024):

- Section 3 for the description of proposed action and action area;
- Section 4 for the status of the species and critical habitat;
- Section 5 for the environmental baseline;
- Section 6.1–6.9 for the effects of the action on species and critical habitat;
- Section 6.11 for the cumulative effects;
- Section 7 for avoidance, minimization and conservation measures; and
- Section 8 for the mitigation plan.

BA for the Duus Dock project WCRO-2025-00298 (AES, 2024c):

- Section 2 for the description of the proposed action and action area;
- Section 3.1–3.4.9 for the status of the species and critical habitat; and
- Section 3.5 for the environmental baseline.

We note where we have supplemented information in the BA with our own data analysis. The BA will be included in the administrative record for this consultation and we will send it to readers of the biological opinion as an email reply attachment to requests sent to consultationupdates.wcr@noaa.gov and reference the appropriate NMFS No.: WCRO-2023-00526 (Nevin Dock), WCRO-2023-02198 (Benedetti/Tiedy PRF), WCRO-2024-00900 (Lee

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Family Dock), WCRO-2024-01562 (Fogg/Kramer Dock), WCRO-2024-02770 (Scott Dock), and WCRO-2025-00298 (Duus Dock).

Consultation History

Nevin Dock

On April 25, 2023, NMFS received a letter from the USACE requesting informal consultation for the Nevin Dock installation project. On June 6, 2023, the USACE informed NMFS of a change in the project manager for this project.

On January 28, 2025, NMFS informed the USACE that we did not concur with their not likely to adversely affect (NLAA) determinations for the LCR Chinook salmon, Upper Columbia River (UCR) spring-run Chinook salmon, Snake River (SR) spring/summer-run Chinook salmon, SR fall-run Chinook salmon, Columbia River (CR) chum salmon, LCR coho salmon, SR sockeye salmon, LCR steelhead, Middle Columbia River (MCR) steelhead, UCR steelhead, SR Basin steelhead, Southern Distinct Population Segment (sDPS) of Pacific eulachon and their critical habitat. NMFS requested that they upgrade their request for consultation from informal to formal and clarify details about the proposed action.

On February 4, 2025, the USACE upgraded their consultation request from informal to formal and clarified the details NMFS requested about the proposed action. These details included the duration of construction activities, whether structures would be removed for the proposed action, and other construction details. On February 5, 2025, NMFS asked the USACE to verify details about the project mitigation plan. The USACE confirmed the details on February 7, 2025.

Benedetti/Tiedy PRF

On August 17, 2023, NMFS received a letter from the USACE requesting informal consultation for the Benedetti/Tiedy PRF installation project.

On January 30, 2025, NMFS informed the USACE that we did not concur with their not likely to adversely affect (NLAA) determinations for the LCR Chinook salmon, UCR spring-run Chinook salmon, SR spring/summer-run Chinook salmon, SR fall-run Chinook salmon, Columbia River CR chum salmon, LCR coho salmon, SR sockeye salmon, LCR steelhead, MCR steelhead, UCR steelhead, SR Basin steelhead, sDPS of Pacific eulachon and their critical habitat. NMFS requested that they upgrade their request for consultation from informal to formal and clarify details about the proposed action.

On February 5, 2025, the USACE upgraded their consultation request from informal to formal and clarified the details NMFS requested about the proposed action. These details included the duration of construction activities, dimensions of the proposed concrete anchor, the number of piles, and the duration of pile driving.

Lee Family Dock

On April 29, 2024, NMFS received a letter from the USACE requesting formal consultation for the Lee Family Dock installation project. On February 4, 2025, NMFS requested additional information regarding the duration of construction activities, duration of pile driving, the

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proposed project work window, and if impact proofing will occur. The USACE provided the information on February 7, 2025.

Fogg/Kramer Community Dock

On July 9, 2024, NMFS received a letter from the USACE requesting formal consultation for the Fogg/Kramer Community Dock installation project. On February 4, 2025, NMFS requested additional information regarding the duration of construction activities, whether impact proofing would occur, the size of piles used, and the duration of pile driving. The USACE provided the information on February 11, 2025.

Scott Dock

On November 5, 2024, NMFS received a letter from the USACE requesting formal consultation for the Scott Dock installation project. On February 3, 2025 and February 28, 2025, NMFS requested additional information regarding whether impact proofing will occur, the expected duration of pile driving, the removal of existing structures, and the proposed project work window. The USACE provided the additional information on March 4, 2025.

Duus Dock

On February 12, 2025, NMFS received a letter from the USACE requesting formal consultation for the Duus Dock Expansion project. On March 5, 2025, NMFS sent an email to the USACE requesting additional information regarding the proposed project's work window and whether impact proofing would occur for this project. The USACE provided additional information on March 6, 2025.

All Projects

On February 27, 2025, NMFS initiated consultation for all projects.

On March 10, 2025, NMFS sent an email requesting that all projects have a consolidated work window of November 1–February 28. On March 11, 2025, the USACE granted the request to consolidate project work windows to November 1–February 28.

Updates to the regulations governing interagency consultation (50 CFR part 402) were effective on May 6, 2024 (89 Fed. Reg. 24268). We are applying the updated regulations to this consultation. The 2024 regulatory changes, like those from 2019, were intended to improve and clarify the consultation process, and, with one exception from 2024 (offsetting reasonable and prudent measures), were not intended to result in changes to the Services' existing practice in implementing section 7(a)(2) of the Act. 89 Fed. Reg. at 24268; 84 Fed. Reg. at 45015. We have considered the prior rules and affirm that the substantive analysis and conclusions articulated in this biological opinion and incidental take statement would not have been any different under the 2019 regulations or pre-2019 regulations, except we note that we have included offsetting reasonable and prudent measures in the incidental take statement (an option that was not included in the section 7 regulations prior to 2024).

Table 1. USACE species and critical habitat determinations, respectively, by project.

Species & Critical Habitat	WCRO-2023-00526	WCRO-2023-02198	WCRO-2024-00900	WCRO-2024-01562	WCRO-2024-02770	WCRO-2025-00298
LCR Chinook salmon	NLAA/ NLAA	NLAA/ NLAA	LAA/ LAA	LAA/ NLAA	LAA/ NLAA	LAA/ LAA
UCR spring-run Chinook salmon	NLAA/ NLAA	NLAA/ NLAA	LAA/ LAA	LAA/ NLAA	LAA/ NLAA	LAA/ LAA
UWR spring-run Chinook salmon	N/A/ N/A	N/A/ N/A	N/A/ N/A	N/A/ N/A	LAA/ NLAA	N/A/ N/A
SR spring/summer-run Chinook salmon	NLAA/ NLAA	NLAA/ NLAA	LAA/ LAA	LAA/ NLAA	LAA/ NLAA	LAA/ LAA
SR fall-run Chinook salmon	NLAA/ NLAA	NLAA/ NLAA	LAA/ LAA	LAA/ NLAA	LAA/ NLAA	LAA/ LAA
CR chum salmon	NLAA/ NLAA	NLAA/ NLAA	LAA/ LAA	LAA/ NLAA	LAA/ NLAA	LAA/ LAA
LCR coho salmon	NLAA/ NLAA	NLAA/ NLAA	LAA/ LAA	LAA/ NLAA	LAA/ NLAA	LAA/ LAA
SR sockeye salmon	NLAA/ NLAA	NLAA/ NLAA	LAA/ LAA	LAA/ NLAA	LAA/ NLAA	LAA/ LAA
LCR steelhead	NLAA/ NLAA	NLAA/ NLAA	LAA/ LAA	LAA/ NLAA	LAA/ NLAA	LAA/ LAA
MCR steelhead	NLAA/ NLAA	NLAA/ NLAA	LAA/ LAA	LAA/ NLAA	LAA/ NLAA	LAA/ LAA
UCR steelhead	NLAA/ NLAA	NLAA/ NLAA	LAA/ LAA	LAA/ NLAA	LAA/ NLAA	LAA/ LAA
UWR steelhead	N/A/ N/A	N/A/ N/A	N/A/ N/A	N/A/ N/A	LAA/ NLAA	N/A/ N/A
SR Basin steelhead	NLAA/ NLAA	NLAA/ NLAA	LAA/ LAA	LAA/ NLAA	LAA/ NLAA	LAA/ LAA
sDPS Pacific eulachon	NLAA/ NLAA	NLAA/ NLAA	LAA/ LAA	LAA/ NLAA	LAA/ NLAA	LAA/ LAA
sDPS green sturgeon	NLAA/ NLAA	NLAA/ NLAA	LAA/ LAA	No Effect/ N/A	N/A/ N/A	LAA/ LAA

Note: Determinations = species/critical habitat; NLAA = Not likely to adversely affect;

LAA = Likely to adversely affect; N/A = Not applicable

Proposed Action

The USACE proposes to authorize six applicants to install floating docks along the LCR in Vancouver, Washington, and Camas, Washington (Figure 1). A brief description of each proposed action can be found in Table 2, below.

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Table 2. Abbreviated project description and associated NMFS identification number.

NMFS Identification #	Abbreviated Project Description
WCRO-2023-00526	The proposed action consists of installing a 32x6 foot floating dock 321 feet from the ordinary high water mark (AES, 2022). The floating dock will be secured by two 12-inch hollow steel piles with sliding attachments. The two piles will be installed using a vibratory hammer for less than 30 minutes and all in-water work is proposed to occur between November 1 and February 28. As mitigation, the applicant will remove a decaying wooden dock and plastic float from their property. Some additional descriptions of the proposed action and project drawings are included in Section 1 of the project BE (AES, 2022).
WCRO-2023-02198	The proposed action consists of constructing a 6x7x3 foot concrete anchor with an imbedded 8-inch steel pile, a 4x4 aluminum apron (connecting the existing stairway to the new dock), 88x4 foot gangway, 8x8 foot floating landing, and 75x8 foot floating dock (AES, 2024a). The structure would be secured by four 12-inch steel piles and driven with a vibratory hammer for a maximum of 20 minutes per pile. All in-water work is proposed to take place between November 1 and February 28. Additional descriptions of the proposed action and drawings are included in Section 1 of the project BE (AES, 2024a).
WCRO-2024-00900	The proposed action consists of constructing a 6x6x3 foot concrete anchor, 62x4 foot walkway, 82x4 foot walkway, 6x6 foot floating landing, and 60x8 foot floating dock (AES, 2024b). The structures would be secured by five 12-inch steel piles driven with a vibratory hammer for less than 30 minutes per pile. All pile driving is proposed to take place between November 1 and February 28. The mitigation plan for this project includes removing English ivy around current mitigation plantings and removing trash along the property's shoreline. Additional descriptions of the proposed action and project drawings are included in Section 2 of the project BE (AES, 2024b).
WCRO-2024-01562	The proposed action consists of installing a transition plate (grounded on concrete pavers), two 115-foot aluminum gangways, 89.6-foot floating walkway, three finger docks (outermost dock 45x8 feet and two inner docks 45x5 feet), 14 steel piles and a 126.1 foot deflector boom (Flowing Solutions, 2024). Ten piles would secure the dock while four piles would secure the deflector boom all ranging between 16 and 24 inches in diameter. All piles would be installed with a vibratory hammer and each piles would be driven for 15–20 minutes. All in-water work is proposed take place between November 1 and February 28. Pages 2–5 of the project BA contains additional details such as the purpose of the project, project description, and proposed minimization measures (Flowing Solutions, 2024).
WCRO-2024-02770	The proposed action consists of installing a 50x4 foot walkway, 60x4 foot walkway, 10x8 foot floating landing, and 50x8 foot floating dock supported by 8 steel piles (seven 12-inch piles and one 10-inch steel pile) (TEC, 2024). All 8 steel piles would be installed using a vibratory hammer for 120 minutes per day over 6 days during the proposed November 1–February 28 work window. Additionally, piles would be proofed with an impact hammer with a maximum of 20 strikes per pile. Mitigation includes planting native trees/shrubs in a 180.5x6 foot area on the property along the shoreline. (TEC, 2024). Minimization measures are discussed in Section 7 of the BA (TEC, 2024).
WCRO-2025-00298	The proposed action expands an existing dock with a 40x8 foot floating dock supported by two 12-inch steel piles (AES, 2024c). The two piles would be installed with a vibratory hammer for approximately less than 30 minutes per pile. Pile driving is proposed to occur during the work window of November 1–February 28. As mitigation, 9 existing creosote piles will be removed and disposed from a 400 square foot area on the property. Further details of the proposed action including project drawings can be found in Section 2 of the BA (AES, 2024c).

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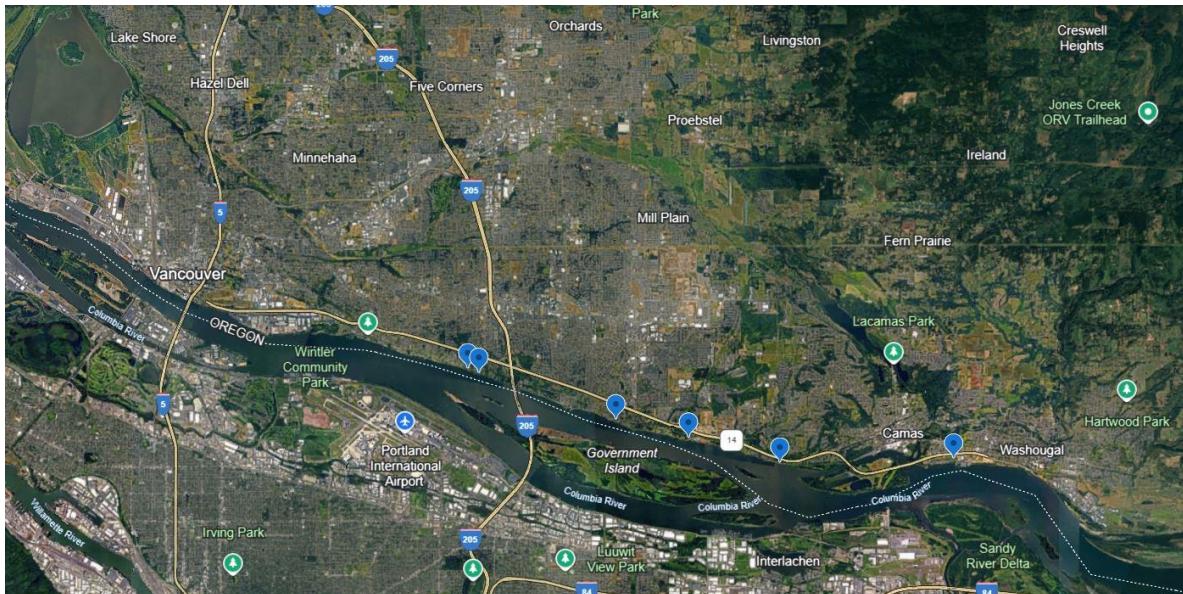


Figure 1. Satellite image of proposed project locations along the LCR.

BIOLOGICAL OPINION

We examined the status of each species that would be adversely affected by the proposed action to inform the description of the species' "reproduction, numbers, or distribution" as described in 50 CFR 402.02. We also examined the condition of critical habitat throughout the designated area and discuss the function of the physical or biological features essential to the conservation of the species that create the conservation value of that habitat.

The proposed actions are likely to adversely affect ESA listed salmon, steelhead, and eulachon (listed below) that are likely to migrate through or past the action area.

1. LCR Chinook salmon
2. UCR spring-run Chinook salmon
3. SR spring/summer-run Chinook salmon
4. SR fall-run Chinook salmon
5. CR chum salmon
6. LCR coho salmon
7. SR sockeye salmon
8. LCR steelhead
9. MCR steelhead
10. UCR steelhead
11. SR Basin steelhead
12. sDPS of Pacific eulachon

The action area also includes designated critical habitat for all the species listed above. Sections of the BEs/BAs of the proposed actions describe the status of ESA listed species and designated critical habitat and are adopted here (AES, 2024a, 2024b, 2024c; Flowing Solutions, 2024; TEC, 2024).

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Additionally, we supplement the status of species and critical habitat sections of the BAs/BEs with Table 3 and Table 4 below. Table 3 provides a summary of listing and recovery plan information, status summaries and limiting factors for the species addressed in this opinion. More information can be found in recovery plans and status reviews for these species, which are referenced in the tables. Acronyms appearing in the table include DPS (Distinct Population Segment), ESU (Evolutionarily Significant Unit), ICTRT (Interior Columbia Technical Recovery Team), MPG (Multiple Population Grouping), NWFSC (Northwest Fisheries Science Center), TRT (Technical Recovery Team), and VSP (Viable Salmonid Population). A summary of the status of critical habitats considered in this opinion is provided in Table 4.

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Table 3. Listing classification and date, recovery plan reference, most recent status review, status summary, and limiting factors for each species considered in this opinion.

Species	Listing Classification and Date	Recovery Plan Reference	Most Recent Status Review	Status Summary	Limiting Factors
LCR Chinook salmon	Threatened 6/28/05	(NMFS, 2013)	(NMFS, 2022a; Ford, 2022)	This ESU comprises 32 independent populations. Relative to baseline VSP levels identified in the recovery plan (Dornbusch 2013), there has been an overall improvement in the status of a number of fall-run populations although most are still far from the recovery plan goals; Spring-run Chinook salmon populations in this ESU are generally unchanged; most of the populations are at a “high” or “very high” risk due to low abundances and the high proportion of hatchery-origin fish spawning naturally. Many of the populations in this ESU remain at “high risk,” with low natural-origin abundance levels. Overall, we conclude that the viability of the Lower Columbia River Chinook salmon ESU has increased somewhat since 2016, although the ESU remains at “moderate” risk of extinction	<ul style="list-style-type: none"> • Reduced access to spawning and rearing habitat • Hatchery-related effects • Harvest-related effects on fall Chinook salmon • An altered flow regime and Columbia River plume • Reduced access to off-channel rearing habitat • Reduced productivity resulting from sediment and nutrient-related changes in the estuary • Contaminant
UCR spring-run Chinook salmon	Endangered 6/28/05	(Upper Columbia Salmon Recovery Board, 2007)	(NMFS, 2022b; Ford, 2022)	This ESU comprises four independent populations. Current estimates of natural-origin spawner abundance decreased substantially relative to the levels observed in the prior review for all three extant populations. Productivities also continued to be very low, and both abundance and productivity remained well below the viable thresholds called for in the Upper Columbia Salmon Recovery Plan for all three populations. Based on the information available for this review, the Upper Columbia River spring-run Chinook salmon ESU remains at high risk, with viability largely unchanged since 2016.	<ul style="list-style-type: none"> • Effects related to hydropower system in the mainstem Columbia River • Degraded freshwater habitat • Degraded estuarine and nearshore marine habitat • Hatchery-related effects • Persistence of non-native (exotic) fish species • Harvest in Columbia River fisheries

Species	Listing Classification and Date	Recovery Plan Reference	Most Recent Status Review	Status Summary	Limiting Factors
SR spring/summer-run Chinook salmon	Threatened 6/28/05	(NMFS, 2017a)	(NMFS, 2022c; Ford, 2022)	This ESU comprises 28 extant and four extirpated populations. There have been improvements in abundance/productivity in several populations relative to the time of listing, but the majority of populations experienced sharp declines in abundance in the recent five-year period. Overall, at this time we conclude that the Snake River spring/ summer-run Chinook salmon ESU continues to be at moderate-to-high risk.	<ul style="list-style-type: none"> Degraded freshwater habitat Effects related to the hydropower system in the mainstem Columbia River, Altered flows and degraded water quality Harvest-related effects Predation
SR fall-run Chinook salmon	Threatened 6/28/05	(NMFS, 2017b)	(NMFS, 2022e; Ford, 2022)	This ESU has one extant population. The single extant population in the ESU is currently meeting the criteria for a rating of “viable” developed by the ICTRT, but the ESU as a whole is not meeting the recovery goals described in the recovery plan for the species, which require the single population to be “highly viable with high certainty” and/or will require reintroduction of a viable population above the Hells Canyon Complex (NMFS 2017b). The Snake River fall-run Chinook salmon ESU therefore is considered to be at a moderate-to-low risk of extinction.	<ul style="list-style-type: none"> Degraded floodplain connectivity and function Harvest-related effects Loss of access to historical habitat above Hells Canyon and other Snake River dams Impacts from mainstem Columbia River and Snake River hydropower systems Hatchery-related effects Degraded estuarine and nearshore habitat.
CR chum salmon	Threatened 6/28/05	(NMFS, 2013)	(NMFS, 2022a; Ford, 2022)	This species has 17 populations divided into 3 MPG. 3 populations exceed the recovery goals established in the recovery plan (Dornbusch 2013). The remaining populations have unknown abundances. Abundances for these populations are assumed to be at or near zero. The viability of this ESU is relatively unchanged since the last review (moderate to high risk), and the improvements in some populations do not warrant a change in risk category, especially given the uncertainty regarding climatic effects in the near future.	<ul style="list-style-type: none"> Degraded estuarine and nearshore marine habitat Degraded freshwater habitat Degraded stream flow as a result of hydropower and water supply operations Reduced water quality Current or potential predation An altered flow regime and Columbia River plume Reduced access to off-channel rearing habitat in the lower Columbia River Reduced productivity resulting from sediment and nutrient-related changes in the estuary Juvenile fish wake strandings Contaminants

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LCR coho salmon	Threatened 6/28/05	(NMFS, 2013)	(NMFS, 2022a; Ford, 2022)	Of the 24 populations that make up this ESU only six of the 23 populations for which we have data appear to be above their recovery goals. Overall abundance trends for the Lower Columbia River coho salmon ESU are generally negative. Natural spawner and total abundances have decreased in almost all DIPs, and Coastal and Gorge MPG populations are all at low levels, with significant numbers of hatchery-origin coho salmon on the spawning grounds. Improvements in spatial structure and diversity have been slight, and overshadowed by declines in abundance and productivity. For individual populations, the risk of extinction spans the full range, from “low” to “very high.” Overall, the Lower Columbia River coho salmon ESU remains at “moderate” risk, and viability is largely unchanged since 2016.	<ul style="list-style-type: none"> Degraded estuarine and near-shore marine habitat Fish passage barriers Degraded freshwater habitat: Hatchery-related effects Harvest-related effects An altered flow regime and Columbia River plume Reduced access to off-channel rearing habitat in the lower Columbia River Reduced productivity resulting from sediment and nutrient-related changes in the estuary Juvenile fish wake strandings Contaminants
SR sockeye salmon	Endangered 6/28/05	(NMFS, 2015)	(NMFS, 2022d; Ford, 2022)	This single population ESU is at remains at “extremely high risk,” although there has been substantial progress on the first phase of the proposed recovery approach—developing a hatchery-based program to amplify and conserve the stock to facilitate reintroductions. Current climate change modeling supports the “extremely high risk” rating with the potential for extirpation in the near future (Crozier <i>et al.</i> 2020). The viability of the Snake River sockeye salmon ESU therefore has likely declined since the time of the prior review, and the extinction risk category remains “high.”	<ul style="list-style-type: none"> Effects related to the hydropower system in the mainstem Columbia River Reduced water quality and elevated temperatures in the Salmon River Water quantity Predation

Species	Listing Classification and Date	Recovery Plan Reference	Most Recent Status Review	Status Summary	Limiting Factors
UCR steelhead	Threatened 1/5/06	(Upper Columbia Salmon Recovery Board, 2007)	(NMFS, 2022b; Ford, 2022)	This DPS comprises four independent populations. The most recent estimates (five year geometric mean) of total and natural-origin spawner abundance have declined since the last report, largely erasing gains observed over the past two decades for all four populations (Figure 12, Table 6). Recent declines are persistent and large enough to result in small, but negative 15-year trends in abundance for all four populations. The overall Upper Columbia River steelhead DPS viability remains largely unchanged from the prior review, and the DPS is at high risk driven by low abundance and productivity relative to viability objectives and diversity concerns.	<ul style="list-style-type: none"> • Adverse effects related to the mainstem Columbia River hydropower system • Impaired tributary fish passage • Degraded floodplain connectivity and function, channel structure and complexity, riparian areas, large woody debris recruitment, stream flow, and water quality • Hatchery-related effects • Predation and competition • Harvest-related effects
LCR steelhead	Threatened 1/5/06	(NMFS, 2013)	(NMFS, 2022a; Ford, 2022)	This DPS comprises 23 historical populations, 17 winter-run populations and 6 summer-run populations. 10 are nominally at or above the goals set in the recovery plan (Dornbusch 2013); however, it should be noted that many of these abundance estimates do not distinguish between natural- and hatchery- origin spawners. The majority of winter-run steelhead DIPs in this DPS continue to persist at low abundance levels (hundreds of fish), with the exception of the Clackamas and Sandy River DIPs, which have abundances in the low 1,000s. Although the five-year geometric abundance means are near recovery plan goals for many populations, the recent trends are negative. Overall, the Lower Columbia River steelhead DPS is therefore considered to be at “moderate” risk.	<ul style="list-style-type: none"> • Degraded estuarine and nearshore marine habitat • Degraded freshwater habitat • Reduced access to spawning and rearing habitat • Avian and marine mammal predation • Hatchery-related effects • An altered flow regime and Columbia River plume • Reduced access to off-channel rearing habitat in the lower Columbia River • Reduced productivity resulting from sediment and nutrient-related changes in the estuary • Juvenile fish wake strandings • Contaminants

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Species	Listing Classification and Date	Recovery Plan Reference	Most Recent Status Review	Status Summary	Limiting Factors
MCR steelhead	Threatened 1/5/06	(NMFS, 2009b)	(NMFS, 2022f; Ford, 2022)	This DPS comprises 17 extant populations. Recent (five-year) returns are declining across all populations, the declines are from relatively high returns in the previous five-to-ten year interval, so the longer-term risk metrics that are meant to buffer against short-period changes in abundance and productivity remain unchanged. The Middle Columbia River steelhead DPS does not currently meet the viability criteria described in the Middle Columbia River steelhead recovery plan.	<ul style="list-style-type: none"> • Degraded freshwater habitat • Mainstem Columbia River hydropower-related impacts • Degraded estuarine and nearshore marine habitat • Hatchery-related effects • Harvest-related effects • Effects of predation, competition, and disease
SR basin steelhead	Threatened 1/5/06	(NMFS, 2017a)	(NMFS, 2022g; Ford, 2022)	This DPS comprises 24 populations. Based on the updated viability information available for this review, all five MPG's are not meeting the specific objectives in the draft recovery plan, and the viability of many individual populations remains uncertain. Of particular note, the updated, population-level abundance estimates have made very clear the recent (last five years) sharp declines that are extremely worrisome, were they to continue.	<ul style="list-style-type: none"> • Adverse effects related to the mainstem Columbia River hydropower system • Impaired tributary fish passage • Degraded freshwater habitat • Increased water temperature • Harvest-related effects, particularly for B-run steelhead • Predation • Genetic diversity effects from out-of-population hatchery releases
sDPS of eulachon	Threatened 3/18/10	(NMFS, 2017c)	(NMFS, 2022h)	The Southern DPS of eulachon includes all naturally-spawned populations that occur in rivers south of the Nass River in British Columbia to the Mad River in California. Sub populations for this species include the Fraser River, Columbia River, British Columbia and the Klamath River. In the early 1990s, there was an abrupt decline in the abundance of eulachon returning to the Columbia River. Despite a brief period of improved returns in 2001-2003, the returns and associated commercial landings eventually declined to the low levels observed in the mid-1990s. Although eulachon abundance in monitored rivers has generally improved, especially in the 2013-2015 return years, recent poor ocean conditions and the likelihood that these conditions will persist into the near future suggest that population declines may be widespread in the upcoming return years	<ul style="list-style-type: none"> • Changes in ocean conditions due to climate change, particularly in the southern portion of the species' range where ocean warming trends may be the most pronounced and may alter prey, spawning, and rearing success. • Climate-induced change to freshwater habitats • Bycatch of eulachon in commercial fisheries • Adverse effects related to dams and water diversions • Water quality, • Shoreline construction • Over harvest • Predation

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WCRO-2024-02770 (Scott Dock)
WCRO-2025-00298 (Duus Dock)

Table 4. Critical habitat, designation date, federal register citation, and status summary for critical habitat considered in this opinion.

Species	Designation Date and Federal Register Citation	Critical Habitat Status Summary
LCR Chinook salmon	9/02/05 70 FR 52630	Critical habitat encompasses 10 subbasins in Oregon and Washington containing 47 occupied watersheds, as well as the lower Columbia River rearing/migration corridor. Most HUC5 watersheds with PCEs for salmon are in fair-to-poor or fair-to-good condition (NMFS 2005). However, most of these watersheds have some, or high potential for improvement. We rated conservation value of HUC5 watersheds as high for 30 watersheds, medium for 13 watersheds, and low for four watersheds.
UCR spring-run Chinook salmon	9/02/05 70 FR 52630	Critical habitat encompasses four subbasins in Washington containing 15 occupied watersheds, as well as the Columbia River rearing/migration corridor. Most HUC5 watersheds with PCEs for salmon are in fair-to-poor or fair-to-good condition. However, most of these watersheds have some, or high, potential for improvement. We rated conservation value of HUC5 watersheds as high for 10 watersheds, and medium for five watersheds. Migratory habitat quality in this area has been severely affected by the development and operation of the dams and reservoirs of the Federal Columbia River Power System.
SR spring/summer-run Chinook salmon	10/25/99 64 FR 57399	Critical habitat consists of river reaches of the Columbia, Snake, and Salmon rivers, and all tributaries of the Snake and Salmon rivers (except the Clearwater River) presently or historically accessible to this ESU (except reaches above impassable natural falls and Hells Canyon Dam). Habitat quality in tributary streams varies from excellent in wilderness and roadless areas, to poor in areas subject to heavy agricultural and urban development (Wissmar et al. 1994). Reduced summer stream flows, impaired water quality, and reduced habitat complexity are common problems. Migratory habitat quality in this area has been severely affected by the development and operation of the dams and reservoirs of the Federal Columbia River Power System.
SR fall-run Chinook salmon	10/25/99 64 FR 57399	Critical habitat consists of river reaches of the Columbia, Snake, and Salmon rivers, and all tributaries of the Snake and Salmon rivers presently or historically accessible to this ESU (except reaches above impassable natural falls, and Dworshak and Hells Canyon dams). Habitat quality in tributary streams varies from excellent in wilderness and roadless areas, to poor in areas subject to heavy agricultural and urban development (Wissmar et al. 1994). Reduced summer stream flows, impaired water quality, and reduced habitat complexity are common problems. Migratory habitat quality in this area has been severely affected by the development and operation of the dams and reservoirs of the Federal Columbia River Power System.
CR chum salmon	9/02/05 70 FR 52630	Critical habitat encompasses six subbasins in Oregon and Washington containing 19 occupied watersheds, as well as the lower Columbia River rearing/migration corridor. Most HUC5 watersheds with PCEs for salmon are in fair-to-poor or fair-to-good condition (NMFS 2005). However, most of these watersheds have some or a high potential for improvement. We rated conservation value of HUC5 watersheds as high for 16 watersheds, and medium for three watersheds.

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 WCRO-2025-00298 (Duus Dock)

Species	Designation Date and Federal Register Citation	Critical Habitat Status Summary
LCR coho salmon	2/24/16 81 FR 9252	Critical habitat encompasses 10 subbasins in Oregon and Washington containing 55 occupied watersheds, as well as the lower Columbia River and estuary rearing/migration corridor. Most HUC5 watersheds with PCEs for salmon are in fair-to-poor or fair-to-good condition (NMFS 2005). However, most of these watersheds have some or a high potential for improvement. We rated conservation value of HUC5 watersheds as high for 34 watersheds, medium for 18 watersheds, and low for three watersheds.
SR sockeye salmon	10/25/99 64 FR 57399	Critical habitat consists of river reaches of the Columbia, Snake, and Salmon rivers; Alturas Lake Creek; Valley Creek; and Stanley, Redfish, Yellow Belly, Pettit and Alturas lakes (including their inlet and outlet creeks). Water quality in all five lakes generally is adequate for juvenile sockeye salmon, although zooplankton numbers vary considerably. Some reaches of the Salmon River and tributaries exhibit temporary elevated water temperatures and sediment loads that could restrict sockeye salmon production and survival (NMFS 2015b). Migratory habitat quality in this area has been severely affected by the development and operation of the dams and reservoirs of the Federal Columbia River Power System.
UCR steelhead	9/02/05 70 FR 52630	Critical habitat encompasses 10 subbasins in Washington containing 31 occupied watersheds, as well as the Columbia River rearing/migration corridor. Most HUC5 watersheds with PCEs for salmon are in fair-to-poor or fair-to-good condition (NMFS 2005). However, most of these watersheds have some or a high potential for improvement. We rated conservation value of HUC5 watersheds as high for 20 watersheds, medium for eight watersheds, and low for three watersheds.
LCR steelhead	9/02/05 70 FR 52630	Critical habitat encompasses nine subbasins in Oregon and Washington containing 41 occupied watersheds, as well as the lower Columbia River rearing/migration corridor. Most HUC5 watersheds with PCEs for salmon are in fair-to-poor or fair-to-good condition (NMFS 2005). However, most of these watersheds have some or a high potential for improvement. We rated conservation value of HUC5 watersheds as high for 28 watersheds, medium for 11 watersheds, and low for two watersheds.
MCR steelhead	9/02/05 70 FR 52630	Critical habitat encompasses 15 subbasins in Oregon and Washington containing 111 occupied watersheds, as well as the Columbia River rearing/migration corridor. Most HUC5 watersheds with PCEs for salmon are in fair-to-poor or fair-to-good condition (NMFS 2005). However, most of these watersheds have some or a high potential for improvement. We rated conservation value of occupied HUC5 watersheds as high for 80 watersheds, medium for 24 watersheds, and low for 9 watersheds.
SR basin steelhead	9/02/05 70 FR 52630	Critical habitat encompasses 25 subbasins in Oregon, Washington, and Idaho. Habitat quality in tributary streams varies from excellent in wilderness and roadless areas, to poor in areas subject to heavy agricultural and urban development (Wissmar et al. 1994). Reduced summer stream flows, impaired water quality, and reduced habitat complexity are common problems. Migratory habitat quality in this area has been severely affected by the development and operation of the dams and reservoirs of the Federal Columbia River Power System.

Species	Designation Date and Federal Register Citation	Critical Habitat Status Summary
sDPS of eulachon	10/20/11 76 FR 65324	Critical habitat for eulachon includes portions of 16 rivers and streams in California, Oregon, and Washington. All of these areas are designated as migration and spawning habitat for this species. In Oregon, we designated 24.2 miles of the lower Umpqua River, 12.4 miles of the lower Sandy River, and 0.2 miles of Tenmile Creek. We also designated the mainstem Columbia River from the mouth to the base of Bonneville Dam, a distance of 143.2 miles. Dams and water diversions are moderate threats to eulachon in the Columbia and Klamath rivers where hydropower generation and flood control are major activities. Degraded water quality is common in some areas occupied by southern DPS eulachon. In the Columbia and Klamath river basins, large-scale impoundment of water has increased winter water temperatures, potentially altering the water temperature during eulachon spawning periods. Numerous chemical contaminants are also present in spawning rivers, but the exact effect these compounds have on spawning and egg development is unknown. Dredging is a low to moderate threat to eulachon in the Columbia River. Dredging during eulachon spawning would be particularly detrimental.

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Action Area

“Action area” means all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action (50 CFR 402.02). The project sites are located along the northern bank of the LCR in both Vancouver, Washington and Camas, Washington (Figure 1). NMFS incorporates by reference the action areas as defined in the BAs/BEs of the proposed projects (AES, 2022, 2024a, 2024b, 2024c; Flowing Solutions, 2024; TEC, 2024). In summary, the action areas include:

- The physical footprint of each proposed project (project site);
- The extent of temporary underwater noise resulting from pile driving or proofing; and
- The extent of temporary elevated suspended sediment as a result of pile driving, proofing, and/or removal.

Environmental Baseline

The “environmental baseline” refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed actions. The environmental baseline includes the past and present impacts of all federal, state, or private actions and other human activities in the action area, the anticipated impacts of all proposed federal projects in the action area that have already undergone formal or early section 7 consultations, and the impact of State or private actions which are contemporaneous with the consultation in process. The impacts to listed species or designated critical habitat from federal agency activities or existing federal agency facilities that are not within the agency’s discretion to modify are part of the environmental baseline (50 CFR 402.02).

We use information from the BEs/BAs describing existing habitat conditions and fish presence in the action areas to assess the habitat condition and function for the ESA species and critical habitat listed above. We adopt here by reference the sections of the BAs/BEs discussing the environmental baseline in the LCR (AES, 2022; 2024a, 2024b, 2024c; TEC, 2024).

Effects of the Action

Under the ESA, “effects of the action” are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action.

The USACE proposes to authorize a dock replacement and the construction of several new over-water structures. The effects of the proposed actions can be characterized as temporary effects associated with construction and long-term effects associated with the presence and use of the new structures. Temporary effects include underwater noise, water quality effects, and reductions in benthic prey abundance. Over the decades-long life of these new structures, their presence and

use would cause enduring effects on fish habitat resources through shading, water quality effects, and boat operation.

The populations of LCR Chinook salmon, UCR spring-run Chinook salmon, SR spring/summer-run Chinook salmon, SR fall-run Chinook salmon, CR chum salmon, LCR coho salmon, SR sockeye salmon, LCR steelhead, MCR steelhead, UCR steelhead, SR Basin steelhead, and sDPS of Pacific eulachon are likely to be affected by the proposed actions. All species would be exposed to permanent habitat effects described above, whereas some individuals may experience the temporary effects depending on their migration timing and presence in the LCR. Most of the temporary effects associated with in-water work are low-intensity and would persist for several minutes over the duration of each project.

Two BAs in particular provide detailed discussions and comprehensive assessments of the effects of the proposed actions and are adopted here (Flowing Solutions, 2024; TEC, 2024). In summary the BAs identify impacts on water quality, sound impacts from pile driving, effects on benthic forage, habitat effects, and effects resulting from boating activity and the presence of the docks. NMFS has evaluated these sections and after our independent, science-based evaluation determined they meet our regulatory and scientific standards. Due to the similar nature of the six proposed actions, all projects are expected to have similar effects on ESA-listed species and their critical habitat. Therefore, the two BAs with the most comprehensive descriptions of effects are being adopted for all projects.

We supplement the BAs effects analysis with the following information. For WCRO-2024-02770, 8 piles will be proofed with an impact hammer after vibratory driving. Impact proofing is likely to exceed the injury threshold (183–187 sound exposure level in decibels [dB_{SEL}]) for fish and may injure individuals present in the action area during impact proofing. Fishes with swim bladders (including salmonids) are sensitive to high-intensity sounds (i.e., sounds with a sharp sound pressure peak) (Caltrans, 2001). As the pressure wave passes through the fish, the swim bladder is rapidly squeezed from the high pressure and rapidly expands as the under pressure component of the wave passes through the fish. The sound pressure generated may rupture capillaries in fishes, which would result in internal bleeding and damaged tissues (Caltrans, 2001). Injuries caused by this type of pressure wave are referred to as barotraumas which can include damage to the auditory system and rupturing of internal organs. Death can be instantaneous, occur soon after exposure, or even occur days after exposure to sound pressure waves.

FHWG (2008) determined that sound pressure waves should be within a single strike threshold of 206 dB and for cumulative strikes either 183 dB_{SEL} for fish smaller than 2 grams or 187 dB_{SEL} for fish larger than 2 grams. The SEL measurement is a cumulative measurement, based on the number of consecutive strikes.

Bubble curtains are used to attenuate the sound generated during impact pile driving by reducing sound pressure levels generated by roughly 5 dB (Mulnar et al., 2020). However, this is not likely to reduce sound pressure levels below the injury threshold and death or injuries to ESA-listed species are still likely to occur. A maximum of 20 impact hammer strikes may occur for this project and is likely to last for a few minutes. With this expected duration, only a few

individuals are likely to be harmed by impact proofing. If exposed, some ESA-listed salmonids and eulachon are likely to be injured or killed if present within a few feet of the pile. However, individuals within approximately 827 feet of the pile are still likely to experience behavioral effects.

We supplement BA page 11 (Flowing Solutions, 2024) on boating impacts with the following information. Underwater noise is known to cause physiological stress in fishes (Nichols et al., 2015). However, the effect is only expected intermittently for a few minutes at a time when boats are used. Although noise related to boat operation is expected to be non-injurious, behavioral effects are likely to result in exposed fish (Codarin et al., 2009; Neo et al., 2014; Nichols et al., 2015). There is also the potential for juvenile salmonids to be harmed by propellers during boat operation. Boat propellers, when activated, may kill fish and small aquatic organisms (Kilgore et al., 2011; VIMS, 2011). Propellers also generate fast moving turbulent water (i.e., propeller wash) that can displace and disorient small fish, which can increase their vulnerability to predators.

We supplement BA section 6.1.1 (TEC, 2024) on contamination impacts with the following. The boats that would utilize the docks would periodically discharge petroleum-based fuels and lubricants into the water. Petroleum-based fuels, lubricants, and other fluids commonly used by boats contain polycyclic aromatic hydrocarbons (PAHs) and other chemicals that are harmful to fish and other aquatic organisms. Discharges at the new dock would likely occur relatively infrequently, with most discharges being very minimal. Additionally, some of the pollutants may evaporate relatively quickly and be dispersed by water currents (Werme et al., 2010). However, the discharges would occur repeatedly over the decades-long life of the dock and the pollutant discharges related to watercraft operation would add to the background contaminant concentrations in the river. Additionally, since creosote piles will be removed for WCRO-2025-00298, contaminated sediments are likely to be re-suspended during creosote pile removal (AES, 2024c; Romberg, 2005).

Cumulative Effects

“Cumulative effects” are those effects of future state or private activities, not involving federal activities, that are reasonably certain to occur within the action area of the federal action subject to consultation (50 CFR 402.02). Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the ESA. Cumulative effects are discussed in BA Section 6.11 (TEC, 2024) and page 15 (Flowing Solutions, 2024) and are incorporated here. Additionally, non-federal activities such as continued population growth and development, climate change, and fishing are reasonably certain to occur within the action area. We also expect recreational use of the LCR to continue and increase with population growth and shoreline development. These effects will be incrementally negative over time.

Integration and Synthesis

The Integration and Synthesis section is the final step in our assessment of the risk posed to species and critical habitat as a result of implementing the proposed action. In this section, we

add the effects of the action to the environmental baseline and the cumulative effects, taking into account the status of the species and critical habitat, to formulate the agency's biological opinion as to whether the proposed action is likely to: (1) Reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing its numbers, reproduction, or distribution; or (2) appreciably diminish the value of designated or proposed critical habitat as a whole for the conservation of the species.

All species considered in this opinion are either threatened or endangered under the ESA. These species are listed under the ESA because of reductions in abundance from historic levels, low productivity, and reductions in diversity and/or spatial structure. These conditions are due in part to systematic degraded habitat in the environmental baseline, where multiple anthropogenic changes have occurred. Conservation measures would be implemented during construction to minimize the temporary construction-related effects. The proposed actions will, however, have permanent adverse effects on ESA-listed species and designated critical habitat due to overwater coverage from installing the 5 new overwater structures and replacing 1 existing structure.

Climate change and human development have and will continue to adversely impact critical habitat creating limiting factors and threats to the recovery of ESA listed species within the action areas. Climate change will likely result in a generally negative effect on stream flow and temperature. The environmental baseline for the LCR has been heavily affected by anthropogenic activities including urbanization, fishing, irrigation, pollution, municipal and industrial water use, and hatchery production (TEC, 2024). NMFS assumes the environmental baseline is not optimal for ESA-listed species. Non-federal actions to mitigate climate change may have localized benefits that extend to species and critical habitat within the LCR as a whole. When these influences are considered, we expect trends in habitat quality to remain stable or degrade gradually over time. This will further stress population abundance and productivity of the species affected by the proposed projects.

After reviewing and analyzing the current status of the listed species and critical habitat, the environmental baseline within the action areas, the effects of the proposed actions, the effects of other activities caused by the proposed actions, and cumulative effects, it is NMFS' biological opinion that the proposed actions are not likely to jeopardize the continued existence of the LCR Chinook salmon, UCR spring-run Chinook salmon, SR spring-run Chinook salmon, SR spring/summer-run Chinook salmon, CR chum salmon, LCR coho salmon, SR sockeye salmon, LCR steelhead, MCR steelhead, UCR steelhead, SR Basin steelhead, and sDPS of Pacific eulachon nor destroy or adversely modify their designated critical habitat.

INCIDENTAL TAKE STATEMENT

Section 9 of the ESA and federal regulations pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without a special exemption. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. "Harm" is further defined by regulation to include significant habitat modification or degradation that actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating,

feeding, or sheltering (50 CFR 222.102). “Harass” is further defined by guidance as to “create the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering.” “Incidental take” is defined by regulation as takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the federal agency or applicant (50 CFR 402.02). Section 7(b)(4) and section 7(o)(2) provide that taking that is incidental to an otherwise lawful agency action is not considered to be prohibited taking under the ESA if that action is performed in compliance with the terms and conditions of this ITS.

The proposed actions are likely to result in the take of Pacific eulachon adults, larvae, and/or eggs. However, take for the sDPS of Pacific eulachon is not prohibited under the section 4(d) rule.

Amount or Extent of Take

In the biological opinion, NMFS determined that incidental take is reasonably certain to occur as follows:

- Harm from pile installation (i.e., underwater sound pressure, turbidity, and benthic disturbance); and
- Harm from the use and presence of the overwater structures (i.e., shade and boat operation).

We cannot predict with meaningful accuracy the number of ESA-listed species that are reasonably certain to be injured or killed annually by exposure to any of these stressors. The distribution and abundance of the fishes that occur within the action areas can be affected by habitat quality, competition, and predation. They can also be affected by the interaction of processes that influence genetic, population, and environmental characteristics. These biotic and environmental processes interact in ways that may be random or directional and may operate across broader temporal and spatial scales than are affected by the proposed actions.

Additionally, NMFS is not aware of any device or practicable technique that would yield reliable counts of individuals that may experience these impacts. In such circumstances, we use the causal link established between the activity and the likely extent and duration of changes in habitat conditions to describe the extent of take as a numerical level of habitat disturbance. The most appropriate surrogates for take are parameters related to the proposed actions that are directly related to the magnitude of the expected take.

Harm from pile installation: ESA-listed species present in the action area may be harmed during pile installation. Specifically, the action would cause benthic disturbances that are likely to diminish benthic prey resources and increase turbidity. Benthic prey abundance is expected to be altered by the proposed actions, reducing the available prey in the affected areas. Additionally, individuals may be harmed by the sound pressure generated during vibratory pile installation or impact proofing. In these cases, the surrogate is the total number of piles installed per project. The number of piles installed is correlated to the turbidity generated, area of benthic disturbance, and sound pressure resulting from pile driving. This surrogate serves as an effective re-initiation trigger since the number of piles can be tracked on a continuous basis.

- WCRO-2023-00526: If the number of piles installed exceeds 2, the take limit is exceeded and the consultation must be re-initiated.
- WCRO-2023-02198: If the number of piles installed exceeds 4, the take limit is exceeded and the consultation must be re-initiated.
- WCRO-2024-00900: If the number of piles installed exceeds 5, the take limit is exceeded and the consultation must be re-initiated.
- WCRO-2024-01562: If the number of piles installed exceeds 14, the take limit is exceeded and the consultation must be re-initiated.
- WCRO-2024-02770: If the number of piles installed exceeds 8, the take limit is exceeded and the consultation must be re-initiated.
- WCRO-2025-00298: If the number of piles installed exceeds 2, the take limit is exceeded and the consultation must be re-initiated.

Harm from the use and presence of the new structures: The size of the new floating docks are the best available surrogate for take associated with exposure to the altered lighting and boat operation. Size is an appropriate measure for altered lighting effects because salmonid avoidance and the distance required for them to swim around the structures would increase as the size and opacity of the structures increase. The size of the dock is also an appropriate surrogate for recreational boat operation and the associated noise and pollution since those stressors are all positively correlated with the number and size of boats that can moor at the structures. As the number of boats increase, boat operation increases. As boat operation increases, the potential for and the intensity of exposure to the related noise, underwater disturbances, and related pollutants would also increase. This surrogate serves as an effective re-initiation trigger since the area of the structure can be observed on a continuous basis.

- WCRO-2023-00526: If the area of the floating dock exceeds 192 square feet, the take limit is exceeded and the consultation must be re-initiated.
- WCRO-2023-02198: If the area of the floating dock and landing exceeds 664 square feet, the take limit is exceeded and the consultation must be re-initiated.
- WCRO-2024-00900: If the area of the floating dock and landing exceeds 516 square feet, the take limit is exceeded and the consultation must be re-initiated.
- WCRO-2024-01562: If the area of the floating walkway and finger docks exceed 1,526.8 square feet, the take limit is exceeded and the consultation must be re-initiated.
- WCRO-2024-02770: If the area of the dock exceeds 1,083 square feet, the take limit is exceeded and the consultation must be re-initiated.
- WCRO-2025-00298: If the area of the dock expansion exceeds 320 square feet, the take limit is exceeded and the consultation must be re-initiated.

Exceedance of any of the exposure limits described above would constitute an exceedance of authorized take that would trigger the need to re-initiate the consultation.

Effect of the Take

In the biological opinion, NMFS determined that the amount or extent of anticipated take, coupled with other effects of the proposed action, is not likely to result in jeopardy to the species or destruction or adverse modification of critical habitat.

WCRO-2023-00526 (Nevin Dock)
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Reasonable and Prudent Measures

“Reasonable and prudent measures” refer to those actions the Director considers necessary or appropriate to minimize the impact of the incidental take on the species (50 CFR 402.02).

1. Minimize take from pile driving.
2. Minimize take resulting from suspended sediment and benthic disturbance.
3. Implement a monitoring plan to confirm that incidental take from the proposed action is not exceeded.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, the federal action agency must comply (or must ensure that any applicant complies) with the following terms and conditions. The USACE or any applicant has a continuing duty to monitor the impacts of incidental take and must report the progress of the action and its impact on the species as specified in this ITS (50 CFR 402.14). If the entity to whom a term and condition is directed does not comply with the following terms and conditions, protective coverage for the proposed action would likely lapse.

1. The following terms and conditions implement reasonable and prudent measure 1:
 - a) Ensure contractors apply soft start procedures to allow for fish to vacate the action area and avoid pile driving effects.
 - b) Ensure pile driving occurs between November 1 and February 28.
 - c) Ensure vibratory pile driving is used to the maximum extent possible.
 - d) Ensure bubble curtains are used if impact proofing occurs.
 - e) If impact proofing occurs, ensure the minimum number of pile strikes are utilized.
2. The following terms and conditions implement reasonable and prudent measure 2:
 - a) Monitor water quality during construction to ensure compliance with State Water Quality Standards.
 - b) If turbidity plume exceeds the State compliance level, employ additional turbidity best management practices to mitigate effects.
3. The following terms and conditions implement reasonable and prudent measure 3:
 - a) The USACE shall ensure that each permit applicant report all monitoring items, to include at minimum the following:
 - i. Report dates and duration of construction activities.
 - ii. Report the dimensions, type, and number of piles installed.
 - iii. Report the final dimensions of the new dock.
 - iv. Report results from water quality monitoring.
 - v. Document mitigation activities (if mitigation is included).
 - vi. Please submit monitoring documents to projectreports.wcr@noaa.gov and include the respective NMFS tracking number: (WCRO-2023-00526 (Nevin Dock); WCRO-2023-02198 (Benedetti/Tiedy PRF); WCRO-2024-00900 (Lee Family Dock); WCRO-2024-01562 (Fogg/Kramer Dock);

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WCRO-2024-02770 (Scott Dock)
WCRO-2025-00298 (Duus Dock)

WCRO-2024-02770 (Scott Dock); WCRO-2025-00298 (Duus Dock) in the subject line when the reports are submitted.

Conservation Recommendations

Section 7(a)(1) of the ESA directs federal agencies to use their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of the threatened and endangered species. Specifically, conservation recommendations are suggestions regarding discretionary measures to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of information (50 CFR 402.02).

The following conservation recommendations are discretionary measures that NMFS believes are consistent with this obligation and therefore should be carried out:

1. Prioritize construction to complete in-water work as soon as possible.
2. Improve the quality of riparian habitat to increase cover for migrating and rearing juvenile salmonids.
3. The applicant should be encouraged to install epoxy-coated steel piles if the piles to be installed are galvanized steel piles. This is to reduce the possibility of zinc leaching into the environment.
4. The applicant should be encouraged to develop a plan to reduce environmental impacts at the dock. Suggested measures include:
 - a. Routinely remove dock-related waste and floating pollutants;
 - b. Reduce inputs of boat-related pollutants;
 - c. Require boats to operate at low speeds in proximity to the dock and in shallow water; and
 - d. Replace any pile caps that become dislodged or damaged.

Re-initiation of Consultation

Under 50 CFR 402.16(a): “Re-initiation of consultation is required and shall be requested by the federal agency where discretionary federal involvement or control over the action has been retained or is authorized by law and: (1) If the amount or extent of taking specified in the incidental take statement is exceeded; (2) If new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence; or (4) If a new species is listed or critical habitat designated that may be affected by the identified action.”

NLAA DETERMINATIONS

The UWR spring-run Chinook salmon and UWR steelhead are not likely to be affected by the proposed actions based on the location of all the proposed projects. Similarly, designated critical habitat for these species does not overlap with the proposed actions (NMFS, 2024). The Willamette River occurs a few miles downstream of the proposed action precluding the presence of these species.

The proposed projects also occur outside designated critical habitat for the sDPS of green sturgeon (NMFS, 2018). Green sturgeon also are known to rarely travel past the CR estuary and are not likely to be present in the action areas. Additionally, green sturgeon would not be present in the CR until late spring to early fall months which is outside the November 1–February 28 work window (Moser & Lindley, 2007).

ESSENTIAL FISH HABITAT RESPONSE

Thank you also for your request for essential fish habitat (EFH) consultation. NMFS reviewed the proposed action for potential effects on EFH pursuant to section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), implementing regulations at 50 CFR 600.920, and agency guidance for use of the ESA consultation process to complete EFH consultation. We have concluded that the action would adversely affect EFH designated under the Pacific Coast salmon fishery management plan (PFMC, 2014). EFH conservation recommendations are provided below.

Magnuson-Stevens Fishery Conservation and Management Act

Section 305(b) of the MSA directs federal agencies to consult with NMFS on all actions or proposed actions that may adversely affect EFH. Under the MSA, this consultation is intended to promote the conservation of EFH as necessary to support sustainable fisheries and the managed species' contribution to a healthy ecosystem. For the purposes of the MSA, EFH means "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity", and includes the associated physical, chemical, and biological properties that are used by fish (50 CFR 600.10). Adverse effect means any impact that reduces quality or quantity of EFH, and may include direct or indirect physical, chemical, or biological alteration of the waters or substrate and loss of (or injury to) benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality or quantity of EFH. Adverse effects may result from actions occurring within EFH or outside of it and may include direct, indirect, site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810). Section 305(b) of the MSA also requires NMFS to recommend measures that can be taken by the action agency to conserve EFH. Such recommendations may include measures to avoid, minimize, mitigate, or otherwise offset the adverse effects of the action on EFH (50 CFR 600.905(b)).

EFH Affected by the Proposed Action

The proposed project occurs within EFH for various federally-managed fish species within the Pacific Coast salmon fishery management plan (PFMC, 2014). The effects of the proposed action on EFH are the same as those described above in the ESA section of this document.

Adverse Effects on EFH

NMFS determined the proposed action would adversely affect Pacific Coast salmon EFH as follows:

- Temporary water quality impacts from pile driving(i.e., turbidity) and boat operation;
- Temporary elevated underwater sound from pile driving;
- Reductions in benthic forage abundance due to benthic disturbances; and
- Altered migration corridor and rearing habitat.

EFH Conservation Recommendations

NMFS determined that the following conservation recommendations are necessary to avoid, minimize, mitigate, or otherwise offset the adverse effects of the proposed action on EFH.

- The USACE should implement nearshore habitat enhancement and restoration activities in the action areas that:
 - Improve the quality of riparian habitat to increase overwater cover and forage for juvenile salmonids; and
 - Remove old in-water structures (i.e., piles and docks) that are no longer utilized.
- Minimize short-term habitat displacement and fish disturbance by minimizing the duration of in-water work to the minimum extent possible.

Statutory Response Requirement

As required by section 305(b)(4)(B) of the MSA, the USACE must provide a detailed response in writing to NMFS within 30 days after receiving an EFH conservation recommendation. Such a response must be provided at least 10 days prior to final approval of the action if the response is inconsistent with any of NMFS' EFH conservation recommendations unless NMFS and the federal agency have agreed to use alternative time frames for the federal agency response. The response must include a description of the measures proposed by the agency for avoiding, minimizing, mitigating, or otherwise offsetting the impact of the activity on EFH. In the case of a response that is inconsistent with the conservation recommendations, the federal agency must explain its reasons for not following the recommendations, including the scientific justification for any disagreements with NMFS over the anticipated effects of the action and the measures needed to avoid, minimize, mitigate, or offset such effects (50 CFR 600.920(k)(1)).

Supplemental Consultation

The USACE must reinitiate EFH consultation with NMFS if the proposed action is substantially revised in a way that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS' EFH conservation recommendations (50 CFR 600. 920(l)).

This letter underwent pre-dissemination review using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106-554). The biological opinion will be available through NOAA Institutional Repository <https://repository.library.noaa.gov/>. A complete record of this consultation is on file at the Oregon Washington Coastal Office in Lacey, Washington.

Please direct questions regarding this letter to Jayvoni Francis in the Washington Coast/Lower Columbia Branch of the Oregon Washington Coastal Office at jayvoni.francis@noaa.gov if you have any questions concerning this consultation, or if you require additional information.

Sincerely,



Kathleen Wells
Assistant Regional Administrator
Oregon Washington Coastal Office

cc: Kristen Mahen, Endangered Species Act Coordinator, USACE
Danette Guy, Biologist/Senior Project Manager, USACE
Joshua "Ari" Sindel, Ecologist, USACE

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