STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600, Olympia, WA 98504-7600 • 360-407-6000

July 1, 2024

The Department of the Army
U.S. Army Corps of Engineers
ATTN: Caren Crandell
4735 East Marginal Way South, Building 1202
Seattle, WA 98134-2388

Re: Coastal Zone Management Federal Consistency Decision for the Horseshoe Bend Levee Rehabilitation (RM 24.4 – 24.6), Green River, Kent, King County, Washington

Dear Caren Crandell:

The Department of Ecology (Ecology) is issuing a Conditional Concurrence to the U.S. Army Corps of Engineers (Corps) for the above-mentioned project. The two conditions require submittal of the following to Ecology: (1) a standalone Shoreline Mitigation Plan for the monitoring and adaptive management of riparian plantings and, (2) annual riparian planting monitoring reports.

While Ecology is not explicitly including a 5-year monitoring requirement for the shoreline mitigation, we strongly recommend that the Corps monitor riparian plantings for a 5-year period. This recommendation is for this project *and all future levee repair projects*.

Ecology would also like to take this opportunity to ask for future discussions with the Corps regarding ways in which levee repair projects can be more consistent with Washington's CZMP, specifically with respect to the SMA and Guidelines. Additionally, we would like to discuss opportunities for improved coordination with local governments that have SMA jurisdiction, earlier engagement with local sponsors, and clearer communication on policy goals related to CZM federal consistency review. Ecology looks forward to having conversations with the Corps on these topics.

Agency Coordination & Discussion

On April 5, 2024, the Corps submitted a CD with the Washington CZMP. Ecology issued a 21-day public notice on April 11, 2024 and received no comments. On May 30, 2024, Ecology requested a 15-day extension pursuant to 15 CFR Part 930.41(b) to allow additional time for Ecology staff to review the project for consistency with the Shoreline Management Act, extending the CZM decision deadline to June 19, 2024. Ecology requested additional information on May 31, 2024 and a meeting was held on June 12, 2024 between the Corps and Ecology. In light of the June 12th meeting, and the additional information received and discussed, Ecology asked the Corps for an additional extension to the CZM decision deadline, pursuant to 15 CFR 930.41(b). On June 14, 2024, the Corps agreed to extend the deadline to July 1, 2024.

Proposed Action

The Corps, in partnership with King County, proposes rehabilitating the Horseshoe Bend levee to the level of protection provided prior to a 2020 damaging flood event. In an undamaged state, the Horseshoe Bend levee provides a 150-year level of protection (0.7% Annual Chance of Exceedance (ACE)) against the flooding of commercial, residential, and public infrastructure. In its damaged state, the levee provides a three-year flood (33% ACE) level of protection.

The project area is located at RM 24.4 to 24.6 on 26003 80th Ave S., Kent, Washington. The Corps proposes to construct a ring dike around the Puget Sound Energy (PSE) facility to be tied into Kent's setback levee near the roadway on 80th Ave S. If necessary, the Corps or King County would also construct an access road on the landward side of the ring dike to allow access to the facility. The Corps would also remove the old levee crown near the riverbank and use the resulting footprint as a site for vegetation plantings and a staging area prior to planting vegetation. Overall, the Corps expects only land-based impacts because there would be no work below the ordinary high water mark (OHWM) or in-water work for this proposed action.

The Corps would begin this levee rehabilitation by removing invasive vegetation within the project footprint. The levee crown would be removed, and a flat terrace would be created with graders, bulldozers, and excavators. Approximately 5 feet of the levee crown height would be removed, which includes over-excavation of 2 feet to allow for replacement of 2 feet of topsoil for new plantings. Vegetation would be planted in the footprint of the removed crown. Native riparian tree and shrub species would be planted in the upstream and downstream segments, and mulch and hydroseed would be placed to minimize erosion and invasive species recruitment in the disturbed area. Once the levee crown is removed, the Corps would construct the ring dike around the PSE facility and tie it into the City of Kent's setback levee. Approximately 23 trees would be removed along with interspersed shrubs within the ring dike footprint placed above the OHWM on the riverward slope of the old levee. A total of 138 trees would need to be replaced based on a 6:1 ratio. This includes the following species: bigleaf maple (*Acer macrophyllum*), Sitka spruce (*Picea sitchensis*), black cottonwood (*Populus*

trichocarpa), Western red cedar (*Thuja plicata*), and Pacific willow (*Salix lucida*). The ring dike would be constructed and tied into the setback levee using an excavator to move earthen embankment material. The top of the old levee would be excavated, bulldozed, and graded to increase floodplain area and to prevent water pooling behind the levee during high flow events. The removal of the crown would be 5.25 feet deep, and 2 feet of that depth would be backfilled with soil (mineral: organic, 95:5 mix) to provide a suitable substrate for plantings.

The Corps would conduct monitoring and adaptive management of plantings, including replacement and maintenance, for the first year. The Corps would re-plant trees if there is less than 80% survival during the first year. If replacement occurs, the USACE would monitor the plantings for an additional year. King County has agreed to continue monitoring for an additional 2 years.

Ecology's Conditions

As stated in the SMA Chapter 90.58.020 RCW): "The legislature finds that the shorelines of the state are among the most valuable and fragile of its natural resources and that there is great concern throughout the state relating to their utilization, protection, restoration, and preservation. In addition it finds that ever increasing pressures of additional uses are being placed on the shorelines necessitating increased coordination in the management and development of the shorelines of the state."

Chapter 173-26-221(5) WAC outlines the value of riparian habitat in Washington state, the ecologically important role that trees play in providing ecosystem functions that would be at risk without proper mitigation to ensure their survival, and the need for shoreline vegetation conservation:

> *In the Pacific Northwest, aquatic environments, as well as their associated upland vegetation and wetlands, provide significant habitat for a myriad of fish and wildlife species. Healthy environments for aquatic species are inseparably linked with the ecological integrity of the surrounding terrestrial ecosystem. For example, a nearly continuous corridor of mature forest characterizes the natural riparian conditions of the Pacific Northwest. Riparian corridors along marine shorelines provide many of the same functions as their freshwater counterparts. The most commonly recognized functions of the shoreline vegetation include, but are not limited to:*
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> - *Providing shade necessary to maintain the cool temperatures required by salmonids, spawning forage fish, and other aquatic biota.*
> - *Providing organic inputs critical for aquatic life.*
> - *Providing food in the form of various insects and other benthic macroinvertebrates.*
> - *Stabilizing banks, minimizing erosion, and reducing the occurrence of landslides. The roots of trees and other riparian vegetation provide the bulk of this function.*

- *Reducing fine sediment input into the aquatic environment through stormwater retention and vegetative filtering.*
- *Filtering and vegetative uptake of nutrients and pollutants from ground water and surface runoff.*
- *Providing a source of large woody debris into the aquatic system. Large woody debris is the primary structural element that functions as a hydraulic roughness element to moderate flows. Large woody debris also serves a pool-forming function, providing critical salmonid rearing and refuge habitat. Abundant large woody debris increases aquatic diversity and stabilization.*
- *Regulation of microclimate in the stream-riparian and intertidal corridors.*
- *Providing critical wildlife habitat, including migration corridors and feeding, watering, rearing, and refugia areas* (Chapter 173-26-221(5)(b) WAC).

WAC 173-26-221(5)(b), highlights the value of shoreline vegetation, which can help increase the stability of river banks and coastal bluffs, reduce the need for structural shoreline stabilization measures, improve the visual and aesthetic qualities of the shoreline, protect plant and animal species and their habitats, and to enhance shoreline uses. Addressing vegetation conservation is necessary to "assure no net loss of shoreline ecological functions and ecosystem-wide processes, to avoid adverse impacts to soil hydrology, and to reduce the hazard of slope failures or accelerated erosion". It further states that "in establishing vegetation conservation regulations, local governments must use available scientific and technical information, as described in WAC 173-26-201(2)(a)."

Pursuant to Section 307(c)(3) of the Coastal Zone Management Act of 1972 as amended, Ecology concurs with the Corps' determination that the proposed work is consistent with Washington's CZMP, provided the following conditions are met:

1. The Corps shall submit a standalone Shoreline Mitigation Plan that provides for the monitoring and adaptive management of riparian plantings to Ecology for review and approval at least 14 business days prior to the start of work. The plan shall include:
    a. A site plan showing the location of the shoreline mitigation areas on the parcel(s). Plan details contained in drawings and maps should be legible on a computer screen.
    b. Plant list.
    c. Performance standards for successful mitigation for each of the following years, at a minimum: Years 1, 2, and 3 (additionally, Years 4 and 5 if the Corps implements Ecology's recommendation).
    d. Monitoring: The condition of riparian plantings documented, at a minimum in Years 1, 2, and 3 (additionally, Years 4 and 5 if the Corps implements Ecology's recommendation). Monitoring reports should document plant survival and vigor, include representative photos from permanent locations, document specific actions taken, and include drawings as appropriate.

e. Adaptive management program describing monitoring and enhancement measures to ensure the viability of the mitigation over time.

2. The Corps shall submit copies of all annual monitoring reports to Ecology by December 31 of each year, or other date as agreed to by the Corps and Ecology that is more in accordance with any other required performance reporting for this project.

All documentation related to the conditions above can be sent to Ecology's Federal Notification Box at fednotification@ecy.wa.gov, with "Horseshoe Bend Levee Rehabilitation, Aquatics #143740" in the subject line.

Ecology's conditional concurrence is issued pursuant to 15 CFR part 930(4). If the Corps does not comply with the above conditions in this decision letter, then all parties shall treat this conditional concurrence as an objection pursuant to 15 CFR 930 subpart C.

If you have any questions regarding Ecology's Conditional Concurrence, please contact Teressa Pucylowski at (360) 764-0546.

Your right to appeal

You have a right to appeal this decision to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal, you must do all of the following within 30 days of the date of receipt of this decision:

- File your notice of appeal and a copy of this decision with the PCHB (see filing information below). "Filing" means actual receipt by the PCHB during regular business hours as defined in WAC 371-08-305 and -335. "Notice of appeal" is defined in WAC 371-08-340.

- Serve a copy of your notice of appeal and this decision on the Department of Ecology mail, in person, or by email (see addresses below).

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Filing an appeal

Filing with the PCHB

For the most current information regarding filing with the PCHB, visit: https://eluho.wa.gov/ or call: 360-664-9160.

Service on Ecology

Street Addresses:

Department of Ecology
Attn: Appeals Processing Desk
300 Desmond Drive SE
Lacey, WA 98503

Mailing Addresses:

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Attn: Appeals Processing Desk
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E-Mail Address:

ecologyappeals@ecy.wa.gov

Sincerely,

Loree' Randall, Section Manager
Aquatic Permitting & Protection Section
Shorelands and Environmental Assistance Program

Sent via e-mail: caren.j.crandell@usace.army.mil

E-cc: Collin Ray, U.S. Army Corps of Engineers
Tyler Tran, U.S. Army Corps of Engineers
Teressa Pucylowski, Ecology
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