



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
SEATTLE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755

Environmental Resources Section

2008 Green River Levee Rehabilitation Projects
King County, Washington

FINDING OF NO SIGNIFICANT IMPACT

1. Background. The U.S. Army Corps of Engineers (Corps), in cooperation with the City of Tukwila and King County Flood Control Zone District, Washington has initiated plans to rehabilitate flood-damaged levees at six projects, Tukwila, Horseshoe Bend, Kent Shops/Narita, Meyers Golf, Dykstra and Galli's, with 10 sites (Tukwila #3 and #5; Horseshoe Bend #s1-4; Kent Shops/Narita; Meyers Golf; Dykstra and Galli's) along the lower Green River.

In November 2006 flow rates of 12,200 cfs were recorded in the Green River near Auburn, Washington. During this event, these 6 projects (10 sites) along the Green River levee system from river mile 14.6 to 30.8, totaling about 11,000 linear feet, were damaged. Saturated soils during high peak flow resulted in toe scour, sink holes and rotational failure in some instances. The damaged levees are constructed of earthen material and armored with riprap on the riverward side. All damaged levees are in highly urbanized areas of King County and protect significant infrastructure and/or life. Prior to the flood, the Green River levees offered greater than 100-year level of protection (LOP). In the current state, the 10 damaged sites offer between 5 and 15 year LOP. Most of the damaged levees have a 2H:1V (horizontal to vertical) (or steeper) slope on the riverward side.

2. Purpose and Need. The purpose of these actions is to repair levees along the Green River that were recently damaged during the November 2006 flooding, and restoring them to provide 100-year flood protection. There is a high potential that without the repairs the areas in question could fail in a much smaller flood causing considerable harm to human health and safety as well as property damage.

3. Proposed Action. The proposed action is to repair damaged levees at 10 sites totaling about 11,500 linear feet. The sites are located in or near the cities of Auburn, Kent and Tukwila, King County, Washington, along the lower Green River between river miles 14.6 and 30.8. Site location details are provided in Table 1.

Table 1:

Site Name	River Mile	River Bank	Location (Section, Township, Range)	Length of repair
Tukwila #3	RM 14.6 to RM 14.8	Left bank	T23N, R4E, Sec 35	1100 ft
Tukwila #5	RM 15.0 to RM 15.3	Left bank	T23N, R4E, Sec 35	800 ft
Horseshoe Bend #1	RM 25.8 to RM 26.1	Right bank	T22N, R5E, Sec 30	950 ft
Horseshoe Bend #2	RM 25.3	Right bank	T22N, R5E, Sec 30	160 ft
Horseshoe Bend #3	RM 25.2	Right bank	T22N, R4E, Sec 25	100 ft
Horseshoe Bend #4	RM 24.9 to RM 25.1	Right bank	T22N, R4E, Sec 25	1000 ft
Kent Shops/Narita	RM 21.0 to RM 22.0	Right bank	T22N, R4E, Sec 23	3800 ft
Meyer's Golf	RM 22.0 to RM 22.5	Right bank	T22N, R4E, Sec 23	1700 ft
Galli's	RM 30.5 to RM 30.8	Left bank	T21N, R5E, Sec 6 ,7	1100 ft
Dykstra	RM 30.8 to RM 31.5	Left bank	T21N, R5E, Sec 8	600 ft

The preferred alternative for the following six sites: Tukwila 205 #3 and #5, Horseshoe Bend #1 and #4, Kent Shops/Narita, and Meyer's Golf is called the layback alternative. The layback alternative consists of moving the footprint of the levee landward back from the river; the toe location would remain the same. The general design includes creating a mid-slope bench planted with native trees and shrubs, reducing the overall slope of the riverward face of the levee to 2V:1H, and adding willows and LWD. The preferred alternative for Horseshoe Bend #2 and #3, Dykstra, and Galli's levee locations is called the Repair to Pre-Flood Condition Alternative. The Repair to Pre-Flood Condition Alternative consists of restoring the levees to pre-flood conditions. Damaged or lost riprap would be replaced, willow lifts would be planted at ordinary high water (OHW) and the levee slopes hydroseeded and/or planted with shrubs. This alternative is preferred at these sites because the "layback alternative" is not possible to construct at these four sites due to site constraints.

4. Impacts Summary. Pursuant to the National Environmental Policy Act, the attached environmental assessment (EA) has been prepared. The EA provides an evaluation of the potential environmental impact of the proposed work (repairing 10 levee sites along the Green River) which is briefly summarized below. Each site is considered as having independent utility. Each site may be constructed independent of the other projects. Construction timing is constrained by the Washington Department of Fish & Wildlife and Endangered Species Act (ESA) in-water construction fish windows established for these specific projects which are from July 1 to September 15, as well as by the need to complete construction by the following flood

season, which is generally considered to begin in November. Funding is also a limitation on when construction may occur.

Impacts from the repair/rehabilitation actions are typically minor and temporary in nature. At those six site locations where the levee will use the layback alternative the top of the levee will be laid back to provide for a plantable bench while still allowing for a 2H:1V river side levee slope. Nine of the 10 sites would be constructed with a launchable toe (Dykstra is the lone exception). The bench at the 6 layback sites can be planted with trees and shrubs that will be allowed to grow to maturity. Large wood would be placed at all but the two shortest repair sites.

The one levee location where impacts to the habitat are not minor is the Galli's levee, at which the levee toe would be moved riverward 3-15 feet in order to lessen the slope (the top cannot be moved landward due to the presence of residences immediately behind the levee), and limited spawning does occur downstream of this point, however, spawning gravel are limited at Galli's. Spawning sized gravels are present at the Dykstra site. The estimated total loss of aquatic habitat at this location is approximately 3000 ft². Construction will end just as Chinook salmon spawning begins. There will likely be some overlap. The Corps considers the impacts at Galli's levee to be mitigated by planting 8800 linear feet of downstream levee benches with a range of vegetation including shade trees. The Galli's site will also be planted with shrubs. Additional environmental features include placement of large woody debris along about 6700 linear feet of levee toe at all project sites, and the layback of the levee at 6 sites allowing the planting of permanent trees and shrubs.

Temporary impacts will result from noise disturbance and air quality impacts due to increased emissions from the frequent and nearly continuous operation of equipment, including dump trucks, front end loaders, bulldozers, and track hoes. The Puget Sound airshed is currently in attainment for carbon monoxide, ozone, PM10, and has maintenance plans in place for these pollutants. The levee repair work is considered to be routine maintenance/repair activities that will have only a *de minimus* impact on air quality (40 CFR 93.153(c)(iv)). Further, preliminary calculations of the U.S. Army Corps of Engineers indicate that emissions associated with these sites will not exceed EPA's *de minimus* threshold levels (100 tons/year for carbon monoxide and 50 tons/year for ozone).

The work complies with the Clean Water Act. The CWA 402 NPDES NOI has been provided. For Section 404, three of the sites are not exempt from the CWA. These are Horseshoe Bend #1, Galli's and Dykstra sites. As part of the Section 404 evaluation, the Corps has determined that the fill at Horseshoe Bend #1 and Dykstra that consists of anchoring rock for large woody debris (LWD) mitigation features is the least environmentally damaging alternative. Galli's fill consists of the launchable toe which the Corps has likewise determined is the least environmentally damaging alternative because of site constraints. These three sites are also therefore required to obtain Section 401 Water Quality certification. The Corps has not yet received the CWA Section 401 water quality certification for these sites from the Washington Department of Ecology (WDE). No in water work will occur until the WQC is received.

The work has been analyzed pursuant to the Coastal Zone Management Act (CZMA), and a consistency determination has been provided to the Washington State Department of Ecology (Ecology). To date concurrence has not been received from Ecology. No construction work

may commence until the concurrence is received or there is a waiver, concurrence from Ecology is expected.

The Corps has prepared a biological assessment to address potential effects to species listed under the Endangered Species Act to the U. S. Fish and Wildlife Service and the National Marine Fisheries Service.

Due to the urgent nature of completing this rehabilitation project prior to the oncoming flood season, the Corps may proceed with construction prior to completion of the consultation with the Services pursuant to the “emergency circumstances” provisions of the ESA consultation regulation and complete ESA consultation after the fact, rather than delaying the urgent work in order to complete ESA consultation before construction begins.

Though consultation is not complete, the Corps has reached an agency determination, based on the best factual and technical information available at the time of decision, and following preliminary coordination with the Services, that the impacts are *not likely to adversely affect* ESA-listed species at Tukwila #3 and # 5, Horseshoe Bend #s1-4, Dykstra, Meyers Golf, and Kent Shops/ Narita; and *likely to adversely affect* ESA-listed species at Galli’s. The Corps believes that this work *is not likely to jeopardize* the continued existence of the listed species, by reducing appreciably the likelihood of either the survival or recovery of the listed species; nor does the work constitute an adverse modification of critical habitat. The Corps believes the construction of benches with trees and shrubs, and placement of large woody debris at other sites, reduces this adverse effect to the level of insignificance, and also believes that no additional ameliorative actions are necessary to avoid jeopardy to listed species.

However, the Corps will also commit to fully funding and performing all Reasonable and Prudent Alternatives necessary to avoid the likelihood of jeopardy to listed species or destruction or adverse modification of designated critical habitat, as well as Reasonable and Prudent Measures (RPMs) necessary and appropriate to minimize the impact of Incidental Take, that are described in a Biological Opinion is received from the Services. The Environmental Assessment will be reevaluated at the time that consultation is complete. If necessary, this EA will be supplemented with necessary and applicable corresponding modifications to the scope and/or nature of the project, the procedures and practices used to implement the project, and/or the type and extent of compensatory mitigation associated with the project.

As required under Section 106 of the NHPA, the Corps has coordinated with the Washington State Office of Archeology and Historic Preservation (OAHP) and the Muckleshoot Indian Tribe (MIT). No recorded prehistoric or early historic Native American archaeological deposits are located within any of the individual projects. A cultural resources survey was conducted in the repair area and a cultural resource report was prepared as part of the Section 106 of the National Historic Preservation Act compliance process. A letter from the State Historic Preservation Officer dated June 11, 2008 concurring with the Corps finding of No Historic Properties Affected, has been received.

The Muckleshoot Indian Tribe (MIT) provided comments to the Notice of Preparation indicating that tribal fishing might be disrupted by levee rehabilitation work. They also suggested they may

require mitigation for impacts to tribal fishing from the Galli's fill and from interfering with the fishery. The Green River is designated as a usual and accustomed fishing area of the MIT. The work is considered to be consistent with the Tribe's treaty rights due to the limited number of sites under construction, the fact that no specific site has been identified as a specific fishing place, the temporal nature of the restriction, the fact that the repairs are necessary to protect human health and safety and is authorized by PL 84-99, as well as the fact that habitat impacts have been addressed in the design of the project including plantings, placement of LWD, and benches. Coordination with the Tribe will be ongoing during construction to try to further minimize the possible impact to the Tribal fishing.

5. Finding. For the reasons described above, I have determined:

A. The proposed actions are in the public interest. These proposed actions, either at the individual sites or combined, will not constitute major Federal actions significantly affecting the quality of the human environment, and therefore, do not require preparation of an environmental impact statement

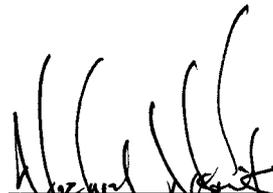
B. Evaluation of Compliance with Section 404(b)(1) Guidelines [40 CFR 230.10]: For the 3 sites not exempt from the CWA, the work was evaluated pursuant to Section 404(b)(1) of the Clean Water Act in accordance with the guidelines promulgated by the EPA (40 CFR 230) for evaluation of the discharge of dredged or fill material into waters of the United States. In addition, consideration has been given to the need for the work and to such water quality standards as are appropriate and applicable by law. Alternatives not requiring the discharge of dredged or fill material into water of the U.S. are not available. The proposed discharge represents the least environmentally damaging practicable alternative and includes all appropriate and practicable measures to minimize adverse effects on the aquatic environment. The work will not result in the unacceptable degradation of the aquatic environment.

C. Section 404(b)(1) Compliance/Non-compliance Review [40 CFR 230.12]: The discharges and methods specified in the proposed work are in accordance with the Section 404(b)(1) Guidelines.

*D. Section 176(c) of the Clean Air Act General Conformity Rule Review: The proposed project has been analyzed for conformity with the regulations implementing Section 176(c) of the Clean Air Act. I have determined the activities proposed under this permit will not exceed *de minimus* levels of direct emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153.*

20 June 2008

Date



Michael McCormick,
Colonel, Corps of Engineers
Commanding