



US Army Corps
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Seattle District

Notice of Preparation

Planning Branch
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ATTN: Rhonda Lucas (PM-PL-ER)

Public Notice Date: 7 August 2008
Expiration Date: 22 August 2008
Reference: PL-08-13
Project Name: Chehalis-Centralia Airport
Levee

Interested parties are hereby notified that the U.S. Army Corps of Engineers, Seattle District (Corps) plans to prepare, pursuant to the National Environmental Policy Act, an environmental assessment (EA) for a proposed levee repair at the Chehalis-Centralia Airport Levee, along the Chehalis River, Lewis County, Washington.

AUTHORITY

The proposed levee repair is authorized by Public Law 84-99 (33 U.S. Code Section 701n). Corps rehabilitation and restoration work under this authority is limited to flood control works damaged or destroyed by floods. The statute authorizes rehabilitation to the condition and level of protection exhibited by the flood control work prior to the damaging event.

PROJECT LOCATION

Levee repairs are proposed for one site, the Chehalis-Centralia Airport levee. This levee is 9,800 feet in length, and is set back distances varying from approximately 700 feet to ½-mile from the right bank of the Chehalis River near the City of Chehalis, Lewis County, Washington. The damaged project section is located between river mile 73.5 and 70.0, Sections 19 & 30, Township 14 North, Range 2 West.

BACKGROUND

Historically the Chehalis River has been prone to regular flooding and inundation of surrounding lands. The levee in existence today was originally completed in 1943. This levee protects a commercial area including a large retail store, an automotive dealership, a small regional airport, and portions of Interstate 5. Age, poor construction, and high peak flows from rain events and urbanization have all contributed to a weakening of the existing levee system.

Damage caused by erosion to levees is cumulative unless addressed through repair efforts. During flood events on the Chehalis River, such as that of December 2007, flows could erode through previously weakened or damaged portions of the levee, making it even more susceptible to seepage and leading to a potential breach. This project is intended to repair the portions of the levee damaged by the December 2007 floods.

NEED AND PURPOSE

On 3 to 4 December 2007, rainfall and snowmelt resulted in a 150 to 200 year peak flooding event on the Chehalis River. During this event, the Chehalis- Centralia Airport Levee sustained substantial damage, including breaches, backslope erosion and sloughing.

This levee is integral to protecting life, safety, and property. The Corps has determined that if the Chehalis-Centralia Airport levee is not repaired before the next flood event, damaged segments of the levee would present an imminent threat of loss of private and/or public property.

The flood season in the Chehalis River basin typically begins November 1 of each year. It is important to ensure that the levees meet their design standards before November, in order to minimize chances of increased levee damage and possible breaching, which could have major consequences to life, health, safety, and property. The purpose of the project is to restore the pre-existing level of flood protection of portions of the Chehalis-Centralia Airport levee that were damaged in the December 2007 flood event.

DESCRIPTION OF DAMAGE

The following table addresses the project damage locations proposed for repair:

Breach	Station	Length
1	95+60 to 97+60	200'
2	66+00 to 68+00	200'
3	51+00 to 52+50	150'
4	13+00 to 14+00	100'
Damage	Station	Length
Site A Landward Slough	9+00	75'
Site B Landward Slough	16+00 to 23+00	700'
Site C Landward Slough	54+00 to 62+00	800'
Site D Landward Slough	70+00 to 75+50	550'
Site E Headcutting erosion	82+00 to 83+00	100'
Site F Scour around old farmhouse foundation	86+00	25'

During the December 2007 flood event, the levee sustained damage from overtopping flows which resulted in four separate breach locations over a total of 650 linear feet. Slope failure occurred as a result of a rapid drawdown type event and is exemplified by an additional six damage sites with a total further damage length of 2,250 feet. There was additional backslope erosion and sloughing along the entire levee system. In its current condition the levee provides protection from approximately a 0 to 2-year flood.

PROPOSED ACTION

Multiple alternatives are being considered, including the No-Action Alternative, the Non-Structural Alternative, the Repair to Pre-Flood Condition Alternative. In order for any alternative to be acceptable for consideration, it must meet certain objectives. The alternative must afford flood protection similar to the rest of the levee segment, it must be economically justified, it should be environmentally acceptable, and it should minimize costs for both the public sponsor and the Federal government.

The No-Action Alternative must be fully considered under NEPA. It would leave the levee in its current damaged condition. This alternative has high potential for flood damage to the protected structures and lands behind the levee in the vicinity of the Chehalis-Centralia Airport.

The Non-Structural Alternative would relocate all existing residences, commercial and retail structures, utilities, and public facilities. Relocation of infrastructure prior to the coming flood season is impractical, even if willing sellers were identified. Because the costs associated with flood proofing or relocating the structures in the potential inundation area would significantly exceed the cost of repairing the levee, the non-structural alternative will likely not be considered further.

The Repair to Pre-Flood Condition Alternative would be to restore the levees to pre-flood conditions and consist of re-establishing the levee prism including the riverward and landward slopes and levee crown. Because the levee is setback from the river, no additional toe reinforcement or bench structures are required. The levee prism would consist of a laid-back slope and resulting increased footprint, with the existing levee cut down to just above native ground surface elevation and then reconstructed. The repaired slopes would be hydroseeded with native grass seed mix to prevent erosion after construction.

The site is readily accessible from Airport Road paralleling the levee, with ingress/egress suggested for all repair sites from this location. Material stockpile locations include large paved areas adjacent to Airport Road.

In-water work for this alternative would be completely avoided since the levee proposed for repair is setback approximately 700 feet from the nearest river bank. USACE biologists determined that there would be no wetland impacts due to the repair provided, as anticipated, the levee toe is not extended riverward at the northeast corner of the levee. Similar construction methods and materials as the original construction would be used in order to achieve a final repair.

ANTICIPATED IMPACTS

The Corps' preliminary analyses of effects of the Repair to Pre-Flood Condition Alternative are summarized below. Both long and short term effects of the overall 2008 Chehalis-Centralia Airport levee rehabilitation project are expected to be insignificant.

Water Quality

Repair construction work on this levee may cause short-term impacts to local water quality as soils are disrupted by clearing and filling and construction sediment enters into river channels through runoff. Dissolved oxygen levels should not be impacted because the material would be relatively clean. Materials for construction would be obtained from an established borrow pit and rock quarry. No contaminants are known or suspected to be present in the construction materials. No in water work is anticipated.

Fish and Wildlife

When completed, this repair would not be intended or expected to generate appreciable change in habitat conditions as compared with conditions pre-existing the flood event. Repair construction work on this levee may cause indirect impacts to fish and wildlife. The primary impact would be a possible temporary increase in water turbidity due to fill placement and consequential sediment runoff. However, this impact would be mitigated by distance from the river, use of clean fill material, following appropriate standard operating procedures (SOPs) for construction, and following best management practices (BMPs) for sediment retention. Excavation, transportation, and placement of embankment materials would require the use of heavy construction equipment whose presence and noise may temporarily displace some species at both the off-site borrow pit and construction site.

Threatened and Endangered Species

Bull trout, which are listed as threatened, may occur in the Chehalis River 700 feet northeast of the project; however no listed species are likely to occur within the construction area boundary. Designated critical habitat for bull trout does not extend upstream as far as the Chehalis-Centralia area.

Wetlands and Woody Vegetation

The Repair to Pre-Flood Condition Alternative would not result in the loss of or impacts to wetlands. The footprint expansion (modification) would be on the sod areas landward and riverward adjacent to the levee toe. The levee is at least 700 feet from the river and in some areas over 1/2 mile. The work would be done on sod vegetated areas, and there are no trees or wetlands within the project work zone. The only existing wetland is adjacent to the northeast corner of the levee construction area and it would not be impacted. Construction work would be conducted with efforts to minimize effects to the local environment. No woody vegetation would be removed during construction. There would be minimal disturbance to the surrounding landscape throughout the site. Within the preferred alternative footprint, there is no woody riparian vegetation.

Cultural Resources

Per Section 304 of the National Historic Preservation Act of 1966, as amended (NHPA), the Corps shall maintain the confidentiality of the location of sensitive historic resources. Accordingly, please contact Mr. David Grant in the Environmental Resources Section, Seattle District, at 206-764-4466 or david.m.grant@usace.army.mil if you have a demonstrable need to know additional information about the proposed Airport Levee rehabilitation project's potential to affect historic properties/cultural resources.

The Corps determined the Repair to Pre-Flood Condition Alternative would be the type of Federal undertaking that has the potential to affect historic properties. Accordingly, the Corps initiated consultation with the Washington State Historic Preservation Officer (SHPO). Per 36 CFR 800.4[a][3], the Corps also identified the affected tribes and solicited information from the Chehalis and Cowlitz regarding historic properties.

For the purposes of the Repair to Pre-Flood Condition undertaking, the Corps assumes the sites represent historic properties eligible for listing in the National Register of Historic Places and has modified the design and proposed construction methods to avoid adverse effects. In addition, the Corps would provide a professional archaeologist to monitor and document the removal and displacement of existing levee fill to prevent adverse effects on historic properties. The Corps received concurrence from the Washington State Historic Preservation Officer with a finding of “No Historic Properties Affected” on 23 July 2008 conditioned upon implementation of the construction BMPs approved by SHPO and a professional archaeological monitoring plan.

Recreation

This section of levee is not considered to be a formal recreational area; however, local walkers may occasionally use the levee. Their long term access will not be affected by the project.

Air Quality and Climate

Use of heavy equipment during construction as well as automobile and truck transportation would result in minor, short-term, insignificant increases in emissions of carbon dioxide and other exhaust components of diesel fuel and gasoline combustion. Effects on climate change are considered negligible and insignificant. Emissions generated by the construction activity would be expected to fall below the *de minimus* threshold.

Cumulative Effects

This levee has been subject to previous levee rehab projects. The baseline condition of the Chehalis River, a series of braided meandering channels, would not be altered due to the proposed action. All construction actions would be accomplished out of water, so no deleterious effects to fish species are anticipated. Wetlands are not present within the preferred alternative construction footprint. Impacts to or loss of wetlands adjacent to levees could be considered a substantial and cumulative impact, but it is not expected that any wetland impact would occur. Additionally, any permanent loss of large trees and shrubs in the northeastern portion of the project area could result in a negative cumulative impact on riparian habitat in the Chehalis basin, but the project as designed would not be expected to result in any removal of vegetation.

COMPLIANCE WITH OTHER LAWS AND REGULATIONS

In preparation of the environmental documentation for this project, coordination has been conducted or is ongoing with the following public agencies: Lewis County, the Chehalis-Centralia Airport, the Chehalis Tribe, the Cowlitz Tribe, the Washington State Historic Preservation Officer (SHPO), and the Washington Department of Ecology (Ecology).

A National Historic Preservation Act Section 106 compliance report was prepared that included all of the Repair to Pre-Flood Condition Alternative's levee repair actions. The report included the findings of the investigations for the repair site, recommendations for archaeological monitoring during construction, a determination of effects to archaeological and historic properties, a monitoring plan, and protocols to be followed. The Corps' determinations of effects to historic properties, the investigation report, and monitoring plan have been forwarded to the Washington State Historic Preservation Officer (SHPO) and the appropriate tribes for concurrence.

EVALUATION -CORPS

The Corps has made a preliminary determination that the environmental impacts of the proposal can be adequately evaluated under the National Environmental Policy Act through preparation of an environmental assessment (EA). Preparation of an EA addressing potential environmental impacts associated with the levee rehabilitation project is currently underway.

The Corps invites submission of comment on the environmental impact of the proposal. The Corps will consider all submissions received by the expiration date of this notice. The nature or scope of the proposal may be changed upon consideration of the comments received. The Corps will initiate an Environmental Impact Statement (EIS), and afford all appropriate public participation opportunities attendant to an EIS, if significant effects on the quality of the human environment are identified and cannot be mitigated.

COMMENT AND REVIEW PERIOD

Submit comments to this office, Attn: Environmental Resources Section no later than the closing date of this public notice to ensure consideration. Requests for information concerning the project should be directed to Ms. Rhonda Lucas, (206) 764-3512, rhonda.s.lucas@usace.army.mil

Deborah Johnston
Chief, Environmental Resources Section

