



REPLY TO
ATTENTION OF

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

CENWS-PM-PL-ER

Squak Valley Environmental Restoration Project Issaquah, King County, Washington

FINDING OF NO SIGNIFICANT IMPACT

Background. Over the last century, the portion of Issaquah Creek within Issaquah city limits has been channelized and otherwise altered to the detriment of local fish and wildlife populations. As a result, Issaquah Creek within the City of Issaquah has few stable off-channel habitats, which are essential for full production of Chinook salmon, coho salmon and steelhead trout. Side channels and backwater sloughs are important rearing and refuge areas for salmonids including Chinook and coho salmon. Off-channel areas and wetlands also help attenuate the magnitude or duration of high velocities in the main creek channel during high flows by allowing the creek to flow onto its floodplain, thereby helping to reduce scour of salmon redds in downstream areas.

The proposed project is intended to create off-channel rearing and refuge habitat for fish, including salmon and trout species, along the Issaquah Creek corridor. Associated riparian plantings will benefit local wildlife by improving habitat value along the riparian corridor of Issaquah Creek. As a component of the Squak Valley project, the City of Issaquah requires several recreational features in keeping with the City's master plan.

Project Location. The approximately 10-acre Squak Valley parcel (Section 3, Township 23N, Range 6E, Willamette Meridian) is located between Issaquah-Hobart Road and Issaquah Creek in King County, Washington, just south of Southeast 96th Street within the City of Issaquah. The parcel is owned by the City of Issaquah. The site lies at approximately river mile (RM) 4.6 of Issaquah Creek.

Proposed Action. The U.S. Army Corps of Engineers, Seattle District (Corps) proposes to excavate two backwater channels on the lower terrace at the project site. While isolated from the creek channel by an existing levee, two dead-end, backwater channels would be excavated. Each channel would incorporate two deeper pools, and the channels would be sloped and excavated to ensure a positive gradient to the creek channel with the pools wetted under all but the driest conditions. Once excavated, the new channels would be connected to Issaquah Creek by removing two sections of the existing levee along the creek shoreline.

The northern and southern channels would be 280 and 320 feet long, respectively, as measured along the channel bottom (i.e. the side slope at the channel end is not included). Bottom width of the channels would vary between 7 and 12 feet and the channel shorelines would be graded to slopes varying between 2:1 (horizontal to vertical) and 4:1. Bankfull width of the channel would be between 18 and 26 feet (varying due to the varying side slope gradients and channel depth). Each channel would incorporate three wetland bench areas that would be planted with native emergent sedge species.

At least 10 pieces of large woody debris would be placed along the shoreline of each channel and the areas bordering the channels would be planted with a variety of native plant species. The channel outlets include bioengineered streambank protection that incorporates a riprap toe (about 37 cubic yards of Class I riprap for each outlet), native plantings, and soil lifts made with geotextile fabric. A low berm would be constructed along the Issaquah-Hobart road to contain periodic floodwaters within the project site and to protect the road and houses to the north from flooding.

Other restoration work includes enhancement of Tributary 0199 (along the southern project boundary) by grading the existing near-vertical banks to a shallower slope and planting native plant species.

Proposed recreation features include a gravel trail, picnic benches, and open areas. The gravel trail would start at a small parking lot that would be constructed on a terrace at the southeastern corner of the site. The trail alignment will follow the route of the construction access roads and will also provide maintenance access to the site following construction. The trail crosses one narrow wetland area. This wetland crossing will consist of a gravel path that is laid at the existing ground surface, thereby providing connectivity between the backwater channels and the undisturbed wetlands east of the trail.

Alternatives to the proposed action were rejected for reasons described in the environmental documentation accompanying this Finding of No Significant Impact. Alternatives included:

- No Action
- Two levee breaches with a side channel;
- Removal of the entire levee; and
- Several levee breaches, no channels.

The final EA and FONSI will be available online at <http://www.nws.usace.army.mil/ers/doc_table.cfm>.

1. Summary of Impacts. An environmental assessment (EA) has been prepared pursuant to the National Environmental Policy Act (NEPA) for the proposed action. The EA describes the environmental consequences of the proposed project, which are briefly summarized below.

The proposed project would change the character of the Squak Valley parcel site by creating backwater channel aquatic habitat that is currently not present at or near the site. Disturbed shorelines areas of Issaquah Creek will be stabilized using bioengineering techniques. Timing, magnitude, and duration of flows in Issaquah Creek and Tributary 0199 will not be adversely affected by the proposed project. Some increased turbidity will likely occur during in-water

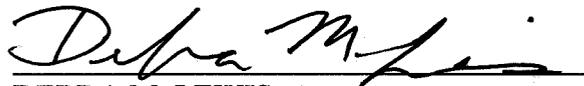
work to connect the newly excavated channels to the creek, but best management practices will be in place to avoid and minimize potential impacts. The new backwater channels will increase the water surface area and, until trees and shrubs planted along the channels grow to provide sufficient shade, water temperatures in the backwater channels during the summer months may increase above the temperature of Issaquah Creek (although this may be moderated by input of groundwater). Adverse effects to Issaquah Creek water temperatures are unlikely since exchange between the creek and the backwater channels will likely be minimal during the summer.

The June 15-July 31 window for in-water work minimizes the likelihood of adverse construction impacts to Chinook, coho, sockeye, and steelhead by allowing work when the abundance of these species is low. The channels will create low velocity habitat with abundant large woody debris that is preferred by rearing juvenile coho salmon. Cutthroat trout, particularly juvenile and small adult fish, also exploit these off-channel habitats. Benefits to Chinook salmon and steelhead trout are expected as juveniles of these species utilize the channels for rearing and refuge during high-flow events during the late winter and spring. The backwater channels will increase diversity of habitat types in the Issaquah Creek basin and will facilitate inputs of litter and forage material from adjacent terrestrial areas, to the benefit of all resident fish species. Native plantings will provide forage and cover for birds, mammals, reptiles, and amphibians. There will be no effect on Native American and cultural resource sites since no such resources occur in the project area. Land use will change from rural residential to public park and habitat area, thereby enhancing recreational opportunities. Cumulative impacts of the proposed work have been evaluated and are expected to be minor.

Conservation measures to limit the extent, timing, and duration of the proposed project have been incorporated to avoid and minimize the environmental impacts of the work.

2. Finding. Based on the analysis detailed in the EA and summarized above, this project is not a major Federal action significantly affecting the quality of the human environment and, therefore, does not require preparation of an environmental impact statement.

15 July 04
Date


DEBRA M. LEWIS
Colonel, Corps of Engineers
District Engineer