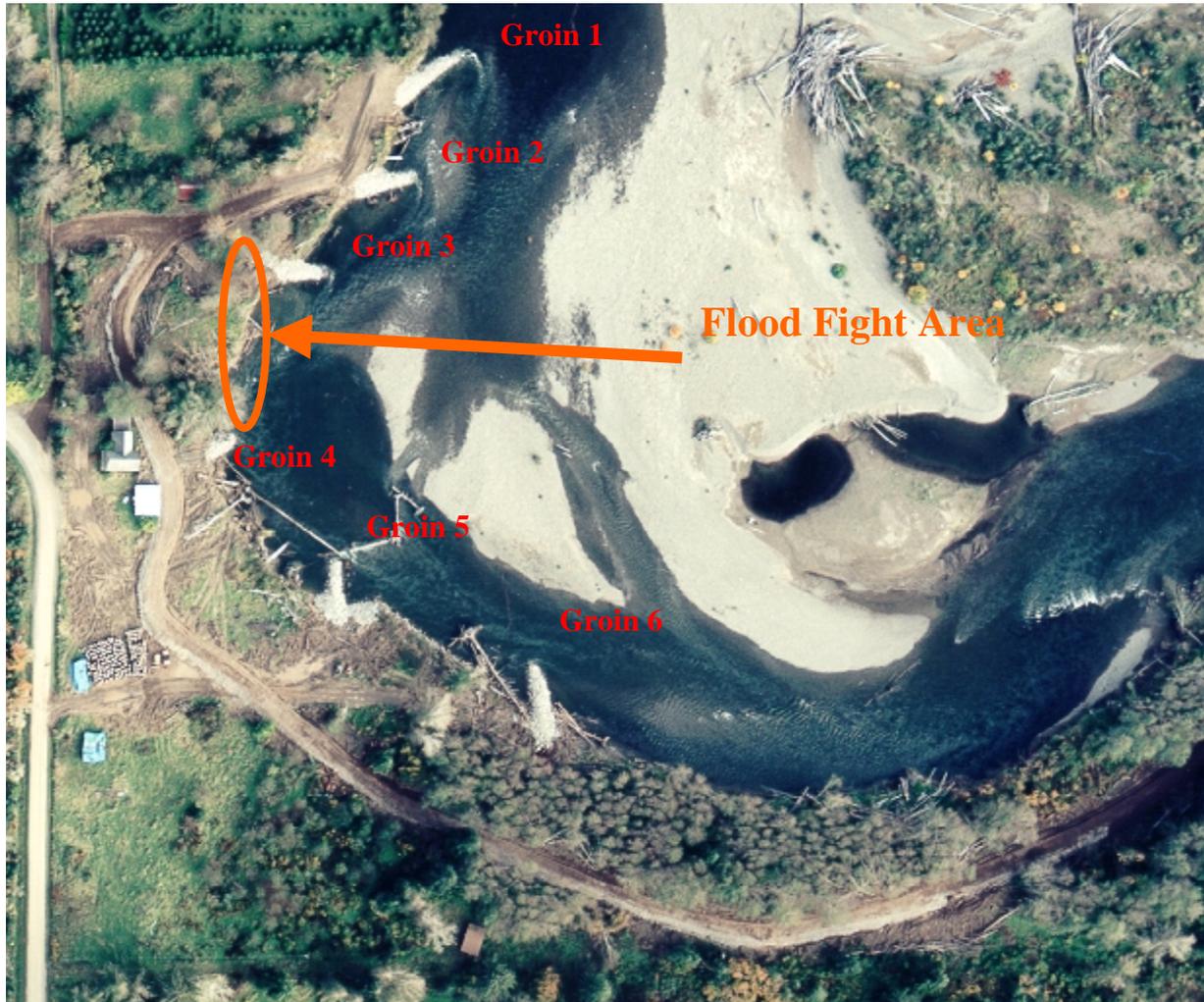


# Draft Environmental Assessment

## Bogachiel River Flood Fight

January 11-13, 2001

Clallam County, Washington



June 2003



US Army Corps  
of Engineers®  
Seattle District

## **Draft January 11-13, 2001 Bogachiel River Flood Fight Environmental Assessment**

**Responsible Agency:** The responsible agency for the flood fight project is the U.S. Army Corps of Engineers, Seattle District.

### **Abstract:**

This Environmental Assessment (EA) evaluates the environmental effects of the January 11-13, 2001 flood fight to allay imminent flooding danger and erosion potential to State Route 110 at the Bogachiel River near La Push, Washington. The U.S. Army Corps of Engineers, Seattle District (USACE), performed the work under the emergency flood fight response measures of Public Law 84-99 (33 USCA 701n). Public Law 84-99 authorizes the USACE to provide emergency flood response measures during flooding to protect against loss of life and damages if the emergency is beyond local and state capabilities. The project placed 250 linear feet of Class 3 riprap in the area of the USACE's October 2000 *Advanced Measures* project. Woody material from on-site was also placed in the new rockwork. To help improve environmental conditions in the area, the USACE also removed garbage from a neighboring landfill immediately landward of the riverbank. This work was not a major Federal action and did not significantly affect the quality of the human environment. The USACE used best management practices to minimize potential adverse effects to aquatic and terrestrial resources.

This document is also available online at:

<http://www.nws.usace.army.mil/ers/envirdocs.html>

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**Comments due by: July 31, 2003**

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# 1. INTRODUCTION

This document evaluates the environmental effects of the January 11-13, 2001 U.S. Army Corps of Engineers (USACE) PL 84-99 Flood Fight Project. This project is authorized under Public Law 84-99 (33 USCA 701n), which authorizes the USACE to provide emergency flood response measures during flooding to protect against loss of life and damages if the emergency is beyond local and state capabilities. The Quileute Tribe contacted the USACE requesting assistance and acted as the necessary the local sponsor.

The project placed 250 linear feet of Class 3 riprap in the area of the USACE's October 2000 *Advanced Measures* project (Figure 1). Woody material from on-site was also placed in the new rockwork. To help improve environmental conditions in the area, the USACE also removed garbage from a neighboring landfill immediately landward of the riverbank. The project was constructed January 11-13, 2001.

## **1.1 Location and Setting**

The project is located on the right (westerly) bank of the Bogachiel River, approximately 6 miles east of the settlement of La Push, Washington, within Clallam County. A location map can be found in Figure 1.

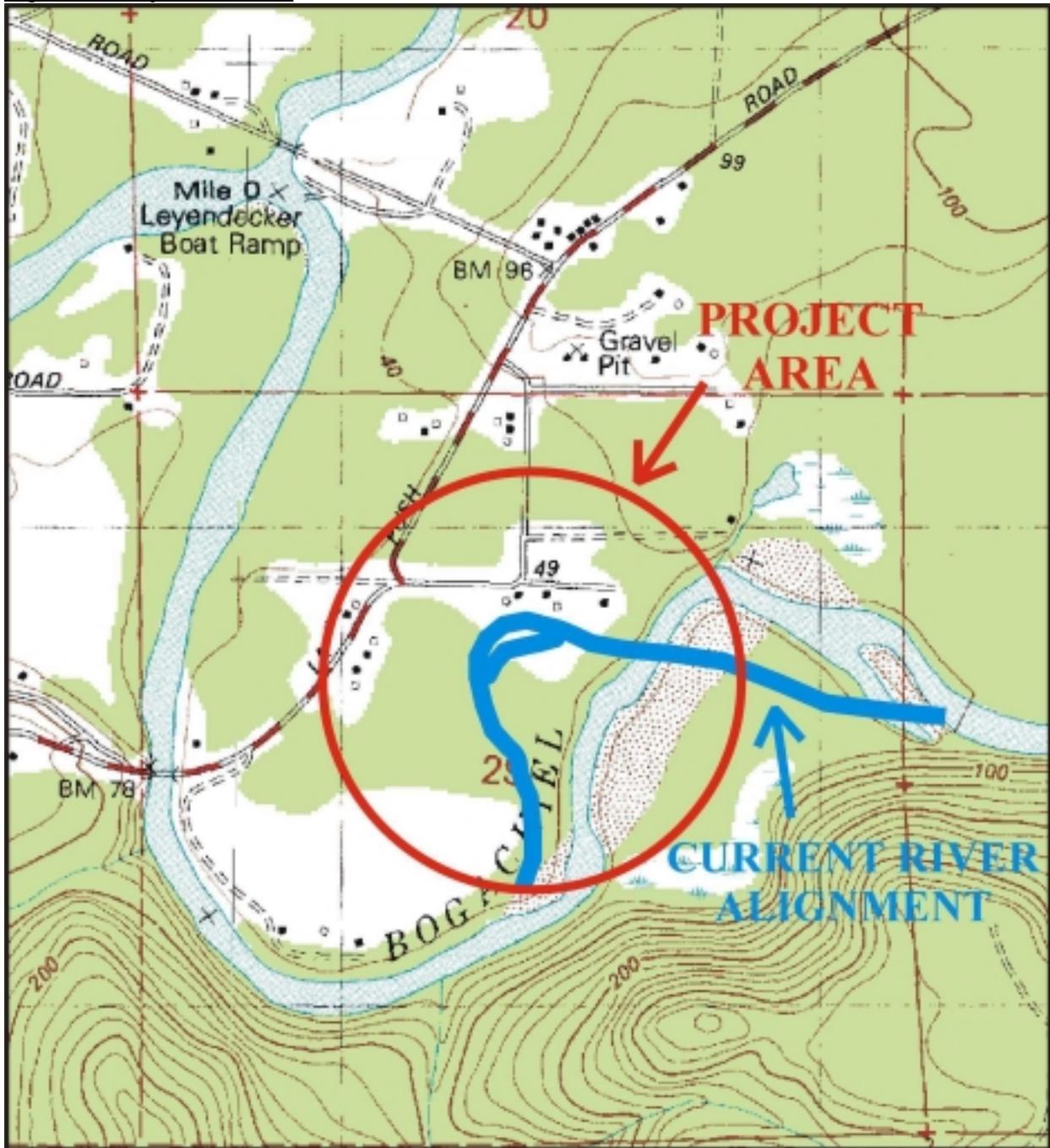
## **1.2 Background**

In October 2000, the USACE constructed the PL 84-99 Advanced Measures Project on the westerly bank of the Bogachiel, approximately 6 miles east of the settlement of La Push, Washington. The Advanced Measures project constructed a series of six deflection groins and a containment berm in attempt to redirect flow from an eroding bank as well as to limit over-bank flooding. Over-bank flooding cuts off the only practicable access to the Quileute Reservation, the community of La Push, U.S. Coast Guard Station and a portion of Olympic National Park. There is no alternate route available for emergency assistance. The river rises quickly, reaching flood stage without warning.

The federal action evaluated in this Environmental Assessment (EA) is the January 11-13, 2001 PL 84-99 Flood Fight Project. This project was constructed in January of 2001 in order to combat emergency flood conditions. With no Corps assistance, bank erosion and headcutting would have continued, eventually reaching SR 110 and the water supply lines. In addition, floodwaters would have inundated the road on a regular basis, isolating La Push and the Quileute Reservation.

*Subsequent and future actions in relation to flooding and erosion problems along the Bogachiel River are not addressed in this document.*

Figure 1. Project Location



Bogachiel River Advance Measures Flood Control Project Area,  
Clallam County, Washington.

(Based on Quillayute Prairie, WA USGS 7.5 Quadrangle Map)

### **1.3 Project Purpose and Need**

The purpose of this project was to provide emergency flood response measures during January 11, 2001 flooding to protect against loss of life and damages. The emergency was declared to be beyond local and state capabilities and the Quileute Tribe requested USACE assistance. This project protected further erosion and overtopping of the bank

### **1.4 Authority**

Public Law 84-99 (33 USCA 701n) authorizes the USACE to provide emergency flood response measures during flooding to protect against loss of life and damages if the emergency is beyond local and state capabilities. Quileute Tribal Chairman Russell Woodruff issued an emergency declaration for the situation on January 11, 2001.

## **2. DESCRIPTION OF THE ACTIONS TAKEN**

The project placed 250 linear feet of Class 3 riprap in the area of the USACE's October 2000 Advanced Measures project. The bank armor was placed between the existing Groin 3 and Groin 4 (Figure 2.).

In order to increase habitat features for fish and wildlife, woody material from on-site was also placed in the new rockwork. Approximately 35 root wad stumps were cabled between the existing groins created during the 2000 USACE Bogachiel Advanced Measures Project. To help improve environmental conditions in the area, the USACE also removed garbage from a neighboring landfill immediately landward of the riverbank

The action area for the project extends from the project site downstream to the mouth of the Quillayute River, including various project needs such as staging areas and access roads.

Equipment used included a hydraulic excavator, bulldozer, and dump trucks.

Figure 2. Area of riprap and alders.



## 2.1 Federal Actions

### 2.1.1 Bank Armor

The project design included the placement of approximately 700 tons of Class 3 riprap placed along the a 250 linear foot stretch of existing bank of the Bogachiel River, adjacent to Old La Push Road near the settlement of Three Rivers.

### 2.1.2 Woody Debris Placement

To increase fish habitat, woody material from the project vicinity was placed in the new rockwork. Approximately 35 root wad stumps, approximately 5 feet in diameter, were incorporated into the project. The root wads were cabled in to the bank and placed in between the groins built during the previous USACE Advanced Measures Project (constructed in October 2000).

Approximately 75 alders with 12-inch diameter stem and 18-24 inch diameter root wads from the site were also incorporated into new rockwork to provide habitat features. Many of these

alders have survived flood events since their placement and were observed in place in April 2003 (see Figure 3.)

### 2.2.2 Garbage Removal

In an additional effort to improve environmental baseline conditions in the project vicinity, the USACE agreed to utilize the available construction equipment to excavate garbage located in a dumping site adjacent to the project. The garbage excavation included the removal of tires, scrap iron, old car bodies, and large appliances. The removal of the garbage reduced the risk of this material entering the river should further bank erosion continue at the site.

Figure 3. Alders remaining in bank. Photo taken April 2003.



## 3. NON-SELECTED ALTERNATIVES

Four alternatives to the selected action were evaluated. These alternatives include: 1) no action; 2) high-flow channel with high bank restoration, 3) bank protection without woody debris; and 4) raise and protect state Highway 110.

### 3.1 No Federal Action

With this alternative, there would have been no federal action to fight flood conditions and continued bank erosion along the Bogachiel River. In particular, the Corps of Engineers would not have built a project to arrest imminent floodwater danger.

### 3.1.1 Effects of No Federal Action.

With no Corps assistance, floodwaters would have likely closed SR 110, isolating the Quileute Reservation and La Push. Bank erosion and headcutting would have continued in area, eventually reaching SR 110 and the water supply lines. Future floodwaters would have continued to inundate the road on a regular basis. The Quileute Tribe and Clallam County would have had to pursue other options.

Unless the Tribe pursued another, non-federal relief action, the effects of no federal action would be as follows:

- *Delays for emergency access to and from the Quileute, the community of La Push and portions of Olympic National Park*
- *Delays or unavailability from routine and emergency medical services (there are no medical services available in La Push).*
- *The U.S. Coast Guard would remain isolated from road access in La Push during periods when State Highway 110 is flooded*
- *Loss of school attendance by students who reside in La Push (schools are located in Forks, WA).*
- *Loss of public transportation to and from La Push during regular periods of flooding.*
- *Temporary losses of access for the government and the public to a portion of Olympic National Park.*
- *Clallam County would continue to advise residents in La Push a impending flood, when known, and would offer emergency response when needed and when as available*
- *In the event that the erosion and/or head cutting bisects or severs State Highway 110, water supply to La Push would be cut-off.*
- *Very active erosion would continue on the bank, causing increased erosion and sedimentation to the river thereby decreasing water quality.*
- *Unknown debris, such as wrecked cars and other junk that are atop the eroding bank could enter the river resulting in hazards and water quality problems.*

### **3.2 High-flow Channel with High Bank Restoration**

This alternative would have provided a high-flow channel through the existing gravel bar on the opposite side of the channel. The gravel would have been removed and placed in the channel along the eroding bank. Access by the river to the current channel would be limited, forcing the majority of the flow through the new high-flow channel. A berm would have been built on the bank to reduce the frequency of overbank flooding. This alternative was eliminated because of

the need for rapid response, and this option would have required waiting for river flows to decrease in order to initiate construction.

### **3.3 Bank Protection without Woody Debris**

Under this alternative riprap protection would have been placed along the eroding bank without adding any woody debris. While this alternative may have provided the necessary flood fight protection, it does not provide the fisheries habitat of the preferred alternative. Detrimental environmental effects would be greater with this alternative than with the selected plan.

### **3.4 Raise and Protect State Highway 110**

Under this alternative, State Highway 110 would be raised approximately eight feet and riprap protection would be placed on the upstream side of the highway. This would require excavating a trench approximately 18 feet deep at the base of the new roadway and filling it with riprap. This alternative was eliminated because of the need for a rapid response to flood conditions and its relatively high cost.

## **4. EXISTING ENVIRONMENT AND ENVIRONMENTAL EFFECTS**

The Bogachiel River is one of the major rivers on the Olympic Peninsula. From its headwaters to its confluence with the Soleduck River, the Bogachiel is 51 miles in length. The upper portion is a pristine mountain river within Olympic National Park, with steep gradients, cascades, waterfalls, and rapids. The lower river is slower, wider and meanders through coastal forest with scattered agricultural and recreation development. The Bogachiel River has an outstanding anadromous fishery. Recreational boating opportunities exist on the lower river. Most of the Bogachiel River has excellent water quality, although clay banks along Lower River cause some discoloration through suspended sediment. The Bogachiel watershed is an important habitat for wildlife, including elk and bald eagles.

### **4.2 Hydrology, Soils and Topography**

Prior to construction of the project, a flood in the area occurred on Dec. 15, 1999. During this flood, water overtopped the right bank of the Bogachiel flowing westerly, overtopped SR 110, and then reentered the Bogachiel River after traveling approximately ½ mile overland. A USGS stage gage on the Bogachiel River does not presently exist. The last gage on the Bogachiel River was removed after recording 4 years of data (1978-1981).<sup>1</sup> There are no known project effects to hydrology.

Topography at the site consists of primarily flat terrain on the northern bank of the river at the project, as the area is mostly alluvial deposit. On the south bank, a high and steep slope contains

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<sup>1</sup> A correlation of the Bogachiel River with the Calawah River was conducted to determine if the longer period of record for the Calawah River could be used for the Bogachiel River. Thirteen data pairs were used in the correlation of the two rivers and resulted in an  $R^2=0.8729$ ,  $\text{Calawah discharge} = 0.8735 * (\text{Bogachiel discharge}) + 3,592$ . This correlation is appropriate for use. With this correlation, the discharge on the Bogachiel for the Dec. 15, 1999 flood was estimated to be 15,350 cfs. This is approximately a 1.5-year event. It should be noted that this area does not have a history of flooding at such a low frequency event

the river. Soil composition at the site is primary alluvial solids with various gravel deposits intermixed atop hardened mud. There were no known effects to soils that were significant.

### **4.3 Vegetation**

The project site is located in a coastal upland forest/pasture. Vegetation at and in the vicinity of the project site include lady fern (*Athyrium fexix-femina*), and sword fern (*Polystichum munitum*) red-osier dogwood (*Cornus sericea*), Nootka rose (*Rosa nutkana*), salmonberry (*Rubus spectabilis*), Sitka spruce (*Picea sitchensis*), western red cedar (*Thuja plicata*), red alder (*Alnus rubra*), and Himalayan blackberry (*Rubus discolor*), Evergreen blackberry, (*Rubus laciniatus*), and a variety of native and non-native grasses. Most prominent at the project site are, red alder (*Alnus rubra*), salmonberry (*Rubus spectabilis*) and Himalayan blackberry (*Rubus discolor*). Prior to construction and during the spring of 2000, large (up to 50" dbh) Sitka spruce (*Picea sitchensis*) were harvested, and this action was unrelated to the Federal action or this project; however, this action greatly exacerbated the erosion potential along the river at the project site.

Approximately one acre of young alder forest (dbh <8 inches) was cleared and one acre of mixed pasture/blackberry bramble was cleared for construction of the containment berm. The berm was hydro-seeded and the area covered by straw. Additionally, all cut alders were incorporated within or between the flow deflection groins on-site. Overall effects to vegetation were insignificant owing to the abundance of this sort of vegetation in the area.

### **4.4 Fish and Wildlife**

The Bogachiel River supports several species of salmon and trout. Chinook salmon is the most important species to the Quileute Tribe. Trout species occasionally present are steelhead and cutthroat trout. The salmon species are the Chinook (*Oncorhynchus tshawytscha*), coho (*O. kisutch*), chum (*O. keta*), pink (*O. gorbuscha*), and sockeye (*O. nerka*).

The forests and pasture surrounding the project site along the Bogachiel River is frequented by a variety of wildlife species. Mammals include Roosevelt elk (*Cervus elaphus roosevelti*), American black bear (*Ursus americanus*), raccoon (*Procyon lotor*) Douglas squirrel (*Tamiasciurus douglasi*), little brown myotis (*Myotis lucifugus*) and Columbia black-tailed deer (*Odocoileus hemionus*). Bird species could include bald eagles (*Haliaeetus leucocephalus*), marbled murrelets (*Brachyramphus marmoratus marmoratus*), and northern spotted owls (*Strix occidentalis caurina*), chestnut-backed chickadee (*Parus rufescens*).

Effects to fish and wildlife, if any, were temporary and primarily during construction. A decrease in sediment loading to the river by arresting or slowing of bank erosion likely has a positive effect to fish. Additional woody material added to the site also increased some fish habitat values. Overall effects, both adverse and favorable, are insignificant.

### **4.5 Threatened and Endangered Species**

In accordance with Section 7(a)(2) of the Endangered Species Act of 1973, as amended, federally funded, constructed, permitted, or licensed projects must take into consideration impacts to federally listed and proposed threatened or endangered species. Three species listed as either

threatened or endangered are potentially found in the area of the project, and are listed in Table 1.

**Table 1. Endangered Species in the Project Vicinity**

Scientific Name	Common Name	Status
<i>Haliaeetus leucocephalus</i>	Bald Eagle	Threatened
<i>Strix occidentalis caurina</i>	Northern Spotted Owl	Threatened
<i>Brachyramphus marmoratus marmoratus</i>	Marbled Murrelet	Threatened

The bald eagle, marbled murrelet, and northern spotted owl are listed as threatened in Washington pursuant to the Endangered Species Act and can be found in coastal areas. These species were addressed in the BA for the USACE Advanced Measures project dated August 22, 2000. A determination of no effect was made for these listed species. The scope of work on this project did not change significantly since the BA was prepared; therefore, the determination of no effect to these listed species remained unchanged.

No anadromous fish runs in the Bogachiel River area are listed as threatened or endangered under the ESA. The Southwest Washington/Lower Columbia River ESU of the coho salmon and cutthroat trout are candidates for listing. This includes runs of this species in the Bogachiel River. The Washington Coast ESUs for Chinook salmon and steelhead have been evaluated, and listing is considered not warranted at present.

The closest bald eagle nest is about one mile from the project area so impacts from the project were not a concern to nesting behavior. These birds are diverse feeders and the Bogachiel River is not considered a primary foraging area for the nesting birds, so the project had no affect to bald eagles. Marbled murrelets have not been observed in the project area so the project did not affect murrelet foraging behavior. There is no suitable habitat for the northern spotted owl at or near the project site. The project had no known effect on northern spotted owls.

#### **4.6 Cultural Resources**

There are no known cultural resources in the project area. On October 13, 2000, a Seattle District Corps of Engineers staff archeologist surveyed the project area. No archeological or historic sites were located in the area. In addition, the Quileute Tribe was contacted and they believe that there are no traditional properties in the project area. The proposed work as described had no impacts to cultural resources.

#### **4.7 Water Quality**

Water quality was not significantly impacted by construction activities. While a temporary increase in turbidity may have occurred during construction of the bank armor, turbidity to the river over the long term will decrease owing to the reduction in bank erosion. During construction, no leakage or spills of hazardous materials occurred. Equipment did not enter the water and remained on dry ground at all times.

A Section 401 Water Quality Certification issued by the Washington Department of Ecology (Ecology No. Corps #BOG-1-00) was issued on October 6, 2000 for the previous USACE Advanced Measures project at the same location. Conditions of the certification include waterside debris removal, hydroseeding, large woody debris placement, and hazardous waste spill prevention and response measures. This 401 Water Quality Certification was modified to incorporate the new USACE flood fight project.

The Clean Water Act Section 404(b)(1) evaluation for this project found that there were no significant adverse impacts to the aquatic ecosystem functions and values. Rather, it is expected that aquatic ecosystem functions and values may improve or stabilize over the long-term by this action.

#### **4.8 Air Quality and Noise**

Air quality meets the standards as set forth by the Washington Department of Ecology and was not permanently affected by the construction of the project. Noise was intermittent at the site and varied depending on the frequency of trucks arriving with the material and construction of the features. All noise factors were addressed for their effect on threatened and endangered species.

During construction, there was a temporary and localized reduction in air quality due to emissions from heavy machinery. These emissions did not exceed EPA's *de minimis* threshold levels (100 tons/year for carbon monoxide and 50 tons/year for ozone) or affect the implementation of Washington's Clean Air Act implementation plan. Therefore, impacts were not significant.

Ambient noise levels increased slightly while construction equipment was operating. However, these effects were temporary and localized, and occurred only during daylight working hours. As a result, impacts were insignificant.

#### **4.9 Utilities and Public Services**

Failure to stabilize the erosion could have had a serious impact La Push water supply pipeline, which lies beneath and next to SR 110. Construction vehicles associated with the project may have disrupted local traffic. Such a disruption would have been temporary and highly localized; therefore impacts would have been insignificant.

#### **4.10 Land Use**

Land use in the project area is primarily rural residential and agricultural. There are scattered homes and farms in the surrounding area. The project caused no unique effects or impacts to land use. Evidence of past or ongoing timber harvest is apparent on the north bank of the river and less evident on the south bank. During early 2000, several large confers were illegally harvested from the north bank within 6 to 10 meters of the eroding bank. The presence of small communities or dispersed dwellings or farm structures is apparent from the project site.

Effects to land use from the action were favorable because grazing, farming and residential uses can continue with decreased potential for dangerous flooding.

#### **4.11 Recreation**

Recreational use of the Bogachiel River at the project site is seasonal and moderate at the project site. A boat ramp exists downstream adjacent to the Soleduck River confluence and significant angler access to this area of the river is made from this point. Most recreational angling originating from the Soleduck/Bogachiel boat ramp takes place on the Soleduck River. Another boat ramp exists approximately 3 miles upstream on the Bogachiel River from the project site

Recreational opportunities along the Bogachiel River have the potential to be popular enough to attract visitors from throughout or beyond the region. River-related opportunities could include, but are not limited to, sightseeing, wildlife observation, camping, photography, hiking, fishing and boating.

Effects to recreation values are insignificant because the site has been in a degraded condition compared with other locations nearby and uses to recreational resources and values are unchanged.

#### **4.12 Hazardous, Toxic, and Radioactive Waste**

There are no known sites at the project locations that have any hazardous, toxic, or radioactive waste.

#### **4.13 Aesthetics**

Along the Bogachiel River, the landscape elements of landform, vegetation, water, color, and related factors are notable. Scenery and visual attractions are highly diverse over the majority of the river. In comparison to most areas along the river, the project location appears less attractive because of the ongoing bank erosion and from illegal logging at the project site. Constructed features of the project do not significantly affect the esthetics of the site or the river.

### **6. UNAVOIDABLE ADVERSE EFFECTS**

Unavoidable adverse effects associated with this project included: (1) a temporary and localized increase in noise, which may have disrupted wildlife in the area, (2) a temporary and localized disruption of local traffic by construction vehicles, and (3) a temporary and localized increase in turbidity levels in the Bogachiel River, which may have affected aquatic/estuarine organisms in the area.

### **7. COORDINATION**

The following agencies and entities have been involved with the environmental coordination of this project:

- Washington Department of Ecology (Ecology)
- National Marine Fisheries Service (NMFS)
- U.S. Fish and Wildlife Service (USFWS)
- National Park Service (NPS)
- Environmental Protection Agency (EPA)
- Washington Department of Fish and Wildlife (WDFW)
- The Quileute Tribal Council

- Washington State Office of Archaeology and Historic Preservation
- Clallam County
- Washington Department of Transportation (WSDOT)
- Washington Department of Emergency Management
- Federal Highway Administration (FHWA)

Agency personnel were kept informed of site conditions and construction schedules throughout the planning for the project and during construction.

## **8.0 CUMULATIVE EFFECTS**

The Corps knows of no other non-Federal actions that are reasonably certain to occur within the action area.

## **9.0 ENVIRONMENTAL COMPLIANCE**

### ***9.1 National Environmental Policy Act***

Given the short time frame and design uncertainty associated with this emergency action, it was not practicable to complete NEPA documentation prior to the initiation of construction. Instead, this Draft Environmental Assessment (EA) was completed *after-the-fact*. This document will be coordinated with state and local agencies, and the Quileute Tribe for 30 days. A final EA incorporating comments and recommendations will be prepared.

### ***9.2 Endangered Species Act Section 7***

In accordance with Section 7(a)(2) of the Endangered Species Act of 1973, as amended, federally funded, constructed, permitted, or licensed projects must take into consideration impacts to federally listed or proposed threatened or endangered species. A Biological Assessment was prepared for the previous USACE Advanced Measures project in the same area. A finding of No Effect was determined for all potentially occurring threatened or endangered species. The National Marine Fisheries Service (NMFS) was notified of the project location and action and affirmed that there are no species of interest to them at the project site and declined to participate in any further review. The USFWS was made aware of the project and declined additional involvement following the findings of the Biological Assessment. The Biological Assessment is contained in Appendix C.

### ***9.3 Clean Water Act, Sections 401, 401***

Placement of rock to construct the bank armor constitutes a discharge of fill material. A 404(b)(1) evaluation has been prepared for the project actions.

Washington State Department of Ecology issued a Clean Water Act Section 401 water quality certification prior to construction. This included any work below the ordinary high water line. Coordination has been ongoing with Washington State Department of Ecology.

#### **9.4 Rivers and Harbors Act**

Under Section 10 of the Rivers and Harbors Act, a navigable waterway is defined as those waters that are subject to the ebb and flow of the tide shoreward to the mean high water mark. The project did not restrict navigation or access to navigable waters, as the rock protection does not impede the main flow of the river.

#### **9.5 Coastal Zone Management Act Consistency**

The Coastal Zone Management Act of 1972 as amended requires Federal agencies to carry out their activities in a manner, which is consistent to the maximum extent practicable with the enforceable policies of the approved Washington Coastal Zone Management Program.

The Corps has determined that the proposed project is consistent to the maximum extent practicable with enforceable policies of the Clallam County's shoreline management program.

#### **9.6 National Historic Preservation Act**

The National Historic Preservation Act (16 USC 470) requires that the effects of proposed actions on sites, buildings, structures, or objects included or eligible for the National Register of Historic Places must be identified and evaluated.

In preparation for the USACE Advanced Measures project at the same location, on October 13, 2000, a Seattle District Corps of Engineers staff archeologist surveyed the project area. No archeological or historic sites were located in the area. In addition, the Quileute Tribe was contacted and they believe that there are no traditional properties in the project area. On October 30, 2000, Washington State Office of Archeology and Historic Preservation concurred with the Seattle District assessment that no resources included in or eligible for inclusion in the National Register of Historical Places were affected by the project.

#### **9.7 Clean Air Act**

The Clean Air Act required states to develop plans, called State implementation plans (SIP), for eliminating or reducing the severity and number of violations of National Ambient Air Quality Standards (NAAQS) while achieving expeditious attainment of the NAAQS. The Act also required Federal actions to conform to the appropriate SIP. An action that conforms with a SIP is defined as an action that will not: (1) cause or contribute to any new violation of any standard in any area; (2) increase the frequency or severity of any existing violation of any standard in any area; or (3) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.

This project is in response to a potentially life-threatening emergency that requires quick action on the part of the Corps thus, consistent with applicable guidance, conformity is presumed (EPA 1993, p. 63231). The Corps' after-the-fact determination is that emissions associated with this project did not exceed EPA's *de minimis* threshold levels (100 tons/year for carbon monoxide and 50 tons/year for ozone).

### **9.8 Executive Order 11988, Floodplain Management**

Executive Order 11988 requires federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy of the floodplain, and to avoid direct and indirect support of floodplain development where there is a practicable alternative. In accomplishing this objective, “each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by flood plains.”

Section 8 of E.O. 11988 notes that the order does not apply to assistance provided for emergency work essential to save lives or protect public property, health, and safety.

### **9.9 Executive Order 12898, Environmental Justice**

Executive Order 12898 directs every federal agency to identify and address disproportionately high and adverse human health or environmental effects of agency programs and activities on minority and low-income populations.

The potentially affected community does include a minority population. A query of the EPA’s SITEINFO database (EPA 2000) indicated that all 1990 census tracts within a 10 mile radius of the project site contained a population that is 85% Caucasian (94% within a 1 mile radius). The populations of the Quileute Tribe are not concentrated in the immediate project vicinity. No recent data on income levels in the immediate area is available. No TRI facilities, AIRS/AFS facilities, or RCRA sites are located within a 10 mile radius of project site. No CERCLA sites or NPDES sites are located within 10 mile of the project site.

The project does not involve the siting of a facility that will discharge pollutants or contaminants, so no human health effects would occur. No interference with Quileute treaty rights would result from the stabilization activities as construction does not physically interfere with fishing, or significantly impact fishery resources.

### **9.10 Wild and Scenic Rivers Act (P.L. 90-542, as amended) (16 U.S.C. 1271-1287)**

The Bogachiel River is listed in the Nationwide Rivers Inventory (NRI), a listing of more than 3,400 free-flowing river segments in the United States that are believed to possess one or more "outstandingly remarkable" natural or cultural values judged to be of more than local or regional significance. Under a 1979 Presidential decree, and related Council on Environmental Quality procedures, all federal agencies must seek to avoid or mitigate actions that would adversely affect one or more NRI segments. The Bogachiel River was found to be eligible for designation as a wild and scenic river, and was therefore placed on the NRI. To be eligible as a scenic river, a river must be free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads. In addition, the river must possess one or more outstandingly remarkable values (ORV). The Bogachiel was found to have ORV’s in scenery, recreation, fish and wildlife.

A presidential directive requires each federal agency, as part of its normal planning and environmental review processes, to take care to avoid or mitigate adverse effects on rivers identified in the Nationwide Rivers Inventory compiled by National Park Service. Because the Bogachiel River is listed in the NRI, the advance measures project may be reviewed by the

Rivers and Trails Conservation Assistance Program of the National Park Service. Further, all agencies are required to consult with the National Park Service prior to taking actions that could effectively foreclose wild, scenic or recreational status for rivers on the inventory.

The flood fight action on the Bogachiel River does not adversely affect the eligibility for designation of the river for wild, scenic or recreational status because the project site has been one of the river’s least aesthetically pleasing sections of shoreline owing to erosion, timber harvest, and degraded rural dwellings or structures. Additionally, recreation use at the site is minimal.

**Table 2.** Summary of Consistency of Project With Applicable Laws, Regulations and Policies

<b>LAWS AND REGULATIONS RELATING TO THE PROPOSED ALTERNATIVES</b>	<b>ISSUES ADDRESSED</b>	<b>CONSISTENCY OF PREFERRED ALTERNATIVE</b>
National Environmental Policy Act (NEPA) 42 *U.S.C. 4321 et seq.	Requires all federal agencies to disclose and evaluate the environmental effects of proposed actions and their alternatives and to seek to minimize negative impacts	N/A
Clean Water Act (CWA) 33 U.S.C. 1251 et seq.; Section 404	Requires federal agencies to protect waters of the United States. Disallows the placement of dredged or fill material into waters (and excavation) unless it can be demonstrated there are no reasonable alternatives.	Consistent per 404(b)(1) Evaluation
Clean Water Act Section 401	Requires federal agencies to comply with state water quality standards.	Consistent with 401 Certification
Fish and Wildlife Coordination Act 16 U.S.C. 661 et seq.	Requires federal agencies to consult with the US Fish & Wildlife Service on any activity that could affect fish or wildlife.	Consistent
Endangered Species Act 16 U.S.C. 1531 et seq.;	Requires federal agencies to protect listed species and consult with US Fish & Wildlife or NMFS regarding the proposed action.	Agency concurrence received
National Historic Preservation Act 16 U.S.C. 461;	Requires federal agencies to Identify and protect cultural and historic resources.	SHPO concurrence received
Wild and Scenic Rivers Act	Requires that "In all planning for the use and development of water and related land resources, consideration shall be given by all Federal agencies involved to potential national wild,	Concurrence from National Park Service received

	scenic and recreational river areas.” (Section 5. (d) of the National Wild and Scenic Rivers Act, 16 U.S.C. 1271-1287)	
Executive Order 11988, Floodplain Management, 24 May 1977	Requires federal agencies to consider how their activities may encourage future development in floodplains.	Consistent
Executive Order 11990, Protection of Wetlands	Requires federal agencies to protect wetland habitats.	Consistent
Coastal Zone Management Act (CZMA) 16 U.S.C. 1451 et seq.; 15 CFR 923	Requires federal agencies to comply with state and local plans to protect and enhance coastal zone and shorelines.	Consistent to the maximum extent practicable
Washington Hydraulic Code	Requires proponents of developments, etc to protect state waters, wetlands and fish life.	Consistent with advisory requirements
Clean Air Act 42 U.S.C. 7401-7671g	Requires federal agencies to consult with state air pollution control agencies to assure that construction plans conform with local air quality standards	Consistent
Clallam County Flood Hazard Reduction Plan	Implement Projects which will result in innovative, comprehensive and permanent solutions to flooding problems while employing environmentally sensitive techniques	Consistent

## 10. CONCLUSION

This project was not a major Federal action significantly affecting the quality of the human environment, and therefore did not require preparation of an environmental impact statement.

## 11. REFERENCES

Environmental Protection Agency. November 30, 1993. *Determining Conformity of General Federal Actions to State or Federal Implementation Plans*. Federal Register 58(228): 63214