US Army Corps of Engineers
Walla Walla District

HEISE-ROBERTS LEVEE REPAIR

PM-EC-2012-0087c

Environmental Assessment

U.S. Army Corps of Engineers
Walla Walla District
Environmental Compliance Section

15 January 2012

Heise-Roberts Levee Repair
Environmental Assessment

Table of Contents

SECTION 1 – INTRODUCTION

1.1 Introduction 1
1.2 Purpose and Need 2
1.3 Background Information 2
1.4 Project Area 2

SECTION 2 – ALTERNATIVES

2.1 Alternative 1 – No Action 3
2.2 Alternative 2 – Proposed Action 3

SECTION 3 – AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Introduction 6
3.2 Water Quality 7
3.3 Aquatic Resources 8
3.4 Wildlife 9
3.5 Vegetation 9
3.6 Threatened and Endangered Species 10
3.7 Cultural Resources 11
3.8 Soils 12
3.9 Socioeconomics 13
3.10 Cumulative Impacts 13

SECTION 4 – COMPLIANCE WITH APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS

4.1 National Environmental Policy Act 14
4.2 Endangered Species Act 14
4.3 National Historic Preservation Act 15
4.4 Clean Water Act 15

SECTION 5 – COORDINATION, CONSULTATION, AND PUBLIC INVOLVEMENT

5.1 Agency Consultation and Coordination 15
5.2 Public Involvement 16

SECTION 6 - REFERENCES

FIGURES

1 Location of Levee Repair site on the Snake River near Rigby, Idaho.....1
2 Lorenzo Bridge levee repair site located just upstream of Highway 20 approximately five miles north of Rigby, Idaho 4
3 Location of the Burn Pit rock quarry, approximately 10 miles northeast of Rigby, Idaho 4
4 Robert's Bridge levee repair site located approximately 2.4 miles upstream from the Robert's Bridge on highway 48 5
5 Location of the Burn Pit rock quarry, approximately 10 miles northeast of Rigby, Idaho 6

TABLES

1 Environmental Resources not evaluated further 6
2 Species that may occur in the area potentially affected by this action 10
3 List of individuals or agencies for distribution of this EA.....16

APPENDICES

Appendix A – Federal Natural Resources Law Compliance and Biological Evaluation, Memorandum for Record Regarding Consultation for the Endangered Species Act, U.S. Fish and Wildlife Coordination Act, the Migratory Bird Treaty Act, and the Bald and Golden Eagle Protection Act.

Appendix B – Section 106 Cultural Resources Consultation.

1. INTRODUCTION

1.1. Introduction

The U.S. Army Corps of Engineers, Walla Walla District (Corps) proposes to repair three sections of the Heise-Roberts Levee system on the Snake River (Figure 1). The levee system was damaged by high flows in 2011.

This Environmental Assessment (EA) was prepared in accordance with the Council on Environmental Quality (CEQ) *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA)* (Title 40 of the CFR Parts 1500-1508) and Engineer Regulation (ER) 200-2-2, *Procedures for Implementing NEPA.* The objective of the EA is to determine the magnitude of the environmental impacts of the proposed action and any reasonable alternatives. If such impacts are relatively minor, a Finding of No Significant Impact (FONSI) would be issued and the Corps would proceed with the preferred alternative. If the environmental impacts are significant according to the CEQ's criteria (40 CFR 1508.27), an Environmental Impact Statement (EIS) would be prepared before a decision is reached to implement the preferred alternative. Applicable laws under which these impacts will be evaluated include NEPA, the Endangered Species Act, the Clean Water Act, and the National Historic Preservation Act. The Corps also considered, but determined inapplicable, requirements under the Clean Air Act, the U.S. Fish and Wildlife Coordination Act, the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

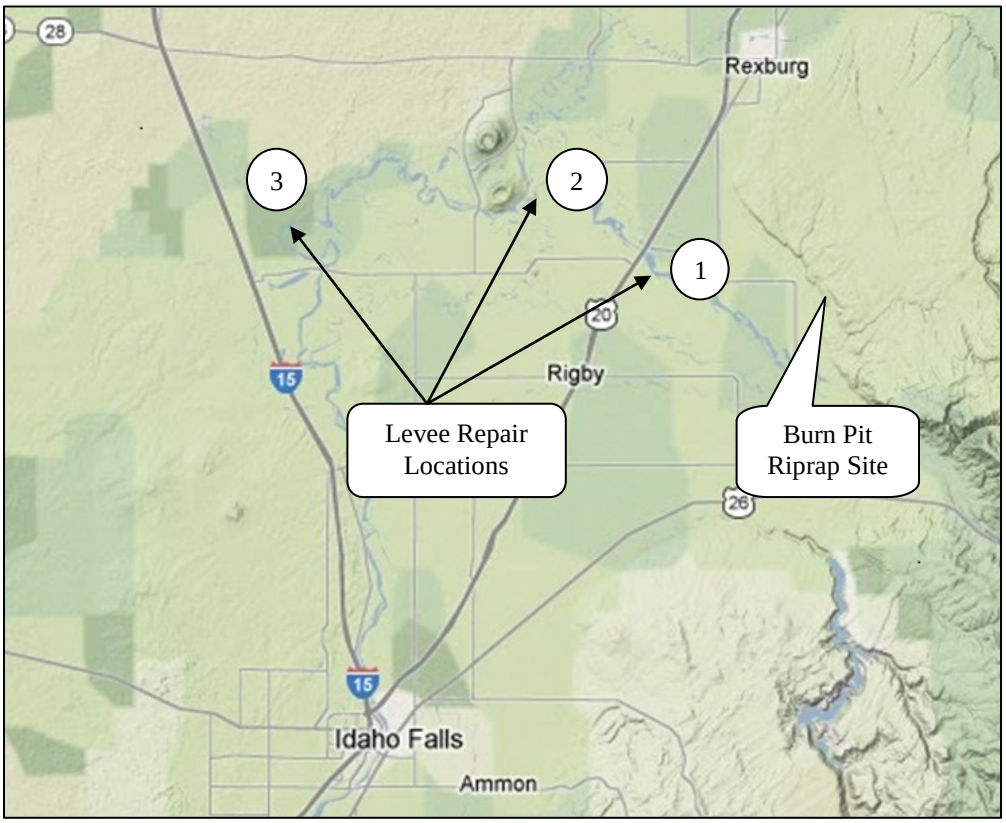

Figure 1. Location of Levee Repair Sites on the Snake River near Rigby, Idaho.

1.2. Purpose and Need

The purpose of the proposed action is to restore flood risk protection provided by the Heise-Roberts levee system on the Snake River near Rigby, Idaho by repairing three damaged sections of the levee system. This levee system protects private and public property along the Snake River from Heise Hot Springs east of Rigby, Idaho, downstream to Roberts Road west of Rigby. High water flows in June, 2011 damaged the levee system at multiple locations. Inspections during August, 2011 identified three priority sites in need of repair. These three sites protect a local bed and breakfast, the approach to a railroad and highway-bridge, a wetland complex, and a canal system. Without repair, these levees will continue to erode and may eventually fail, leading to the loss of private property and public infrastructure.

1.3. Background Information

The Heise-Roberts levee system was first authorized in Section 10 of the Flood Control Act of December 1944 and was completed in 1952. An extension of the system was authorized in Section 204 of the Flood Control Act of May 1950 and was completed in 1966. Approximately 34 miles of levee and 10 miles of revetment were constructed as part of these authorizations. In addition, 27 drainage structures, several slough blocks, and minor channel improvements were part of the system. Both phases of the system were constructed by the U.S. Army Corps of Engineers (Corps). Subsequent to this, the levee system was transferred to the local flood control district (flood control district 1); the first phase was transferred in 1952 and the second in 1968.

Under Public Law 84-99 authority was given the Corps to provide emergency response/ disaster assistance (33 U.S.C. 701n). The appropriation for this authority is Flood Control and Coastal Emergencies. Under PL 84-99, the Chief of Engineers is authorized to undertake activities, including… rehabilitation of flood control works (FCW) threatened or destroyed by flood. To be eligible levees must be part of the Corps Rehabilitation and Inspection Program (RIP). This program provides for inspections of FCW's and the rehabilitation of damaged FCW's. As a federally constructed locally maintained levee system, the Heise-Roberts levees system is eligible for emergency assistance from the Corps. On August 31, 2011 the flood control district requested assistance from Corps to repair the priority sites identified during the August inspection. This project is in response to that request.

1.4. Proposed Action Area

The Heise-Roberts levee system is located in rural Madison and Jefferson Counties, Idaho, along the banks of the Snake River. All three levee repair sites are within the Idaho Falls sub-basin of the upper Snake River basin near Rigby, Idaho. An estimated 17,267 acres are protected from flooding by the levee system. Approximately 74% if this land is in agriculture. These levees also protect irrigation diversion canals that serve an additional 9,000 acres of agriculture off the floodplain.

The Snake River throughout this area is dominated by a braided system with an unstable channel that migrates within the floodplain and levee system. An extensive corridor of riparian habitat is important for fish and wildlife in the area and is characterized by riverbanks lined with cottonwood, willow, Russian olive, dogwood, water birch, and alder. Understory plants include horsetail, wild rose and milkweed. Open habitats are dominated by Kentucky blue grass, clover, meadow fescue, and sedges. The Snake River supports healthy fish populations including: a number of minnow species, whitefish,

bass, and several trout species. The surrounding area is considered a high desert and receives less than 12 inches of precipitation per year.

2. ALTERNATIVES

Two alternatives are evaluated in this EA; the no action alternative and the proposed action alternative. The "no action" alternative does not satisfy the project's purpose and need, but NEPA requires analysis of the no action alternative to set the baseline from which to compare other alternatives. "No action" does not mean there will be no environmental impacts from this alternative. A third alternative, the use of setback levees, was briefly considered, but was determined to not be a viable repair alternative. Setback levees would allow the Snake River to flow even closer to private and public infrastructure including the Blue Heron Bed and Breakfast, the railroad bridge, Highway 20, and a major irrigation canal that runs parallel to the Snake River. This closer proximity would likely jeopardize this infrastructure. Consequently, only the No Action and Proposed Action Alternatives were analyzed further.

2.1. Alternative 1: No Action

Under Alternative 1, the no action alternative, the Corps would not repair the Heise-Roberts levee system, but would allow the levees to continue to function in their damaged state. No ground disturbing activities would take place and no alterations of these levees would occur. Periodic monitoring and inspections would take place. Without repair, these levees will continue to erode and may eventually fail, leading to the loss of private property and public infrastructure.

2.2. Alternative 2: Proposed Action

Under Alternative 2, the proposed action, the Corps would repair three sections of levee on the Heise-Roberts levee system during the early spring of 2013, as described below. Repairs would occur prior to high water flows in early 2013.

2.2.1. Lorenzo Bridge

The Lorenzo Bridge site is a 285 foot section of levee on the south bank of the Snake River just upstream from highway 20 (Figure 2). The levee protects a business (bed and breakfast) and the approach to a railroad and highway bridge. During summer flows, the river is about 7 feet deep at this site and the bank height above water surface is approximately 15 feet. Approximately 672 square yards of the levee would be cleared and grubbed to remove vegetation and clear the work area. The damaged levee would be excavated to a 2:1 slope and covered with approximately 1000 yards of quarry spalls. A final layer of riprap two feet thick would be placed on the quarry spalls. Riprap would be hauled from the Burn Pit quarry about 8 miles from the site.

2.2.2. Henry's Fork

The Henry's Fork repair site is 94 feet long and is located on the north bank of the Snake River approximately 1.3 river miles upstream from the confluence of the Snake and Henry's Fork Rivers (Figure 3). The levee along this stretch was made in two levels. Only the lower level was damaged.

The upper level is set back 30 to 50 feet from the lower level. The summer river is about 10 feet deep at this site and the bank height above the water surface is approximately 13 feet. A small area of the levee would be cleared and grubbed and approximately 600 yards of material would be excavated to create a 2:1 slope at the site, after which about 322 yards of quarry spalls would be placed on the excavated slope. A final layer of riprap two feet thick would be placed on the quarry spalls. Riprap would be hauled from the Burn Pit quarry about 12 miles from the site.

Figure 2. Lorenzo Bridge levee repair site located just upstream of Highway 20 approximately five miles north of Rigby, Idaho.

2.2.3. Robert's Bridge

The Robert's Bridge repair site is 170 feet in length and is approximately 2.4 river miles upstream of Roberts Bridge on highway 48 (Figure 4). The levee protects a canal adjacent to the river. Summer river depth is about 10 feet at this site, while the bank height above the water surface is approximately 15 feet. Approximately 494 square yards of levee will be cleared and grubbed to remove shrubs and clear the work area. About 2000 yards of material will be excavated to create a 2:1 slope, after which, approximately 1200 yards of quarry spalls will be placed on the slope. A final layer of riprap two feet thick will be placed on the quarry spalls. Riprap will be hauled from two sites; unused riprap from a previous project only 3 miles away will be used first, and the remaining riprap will come from the Burn Pit quarry about 23 miles from the site.

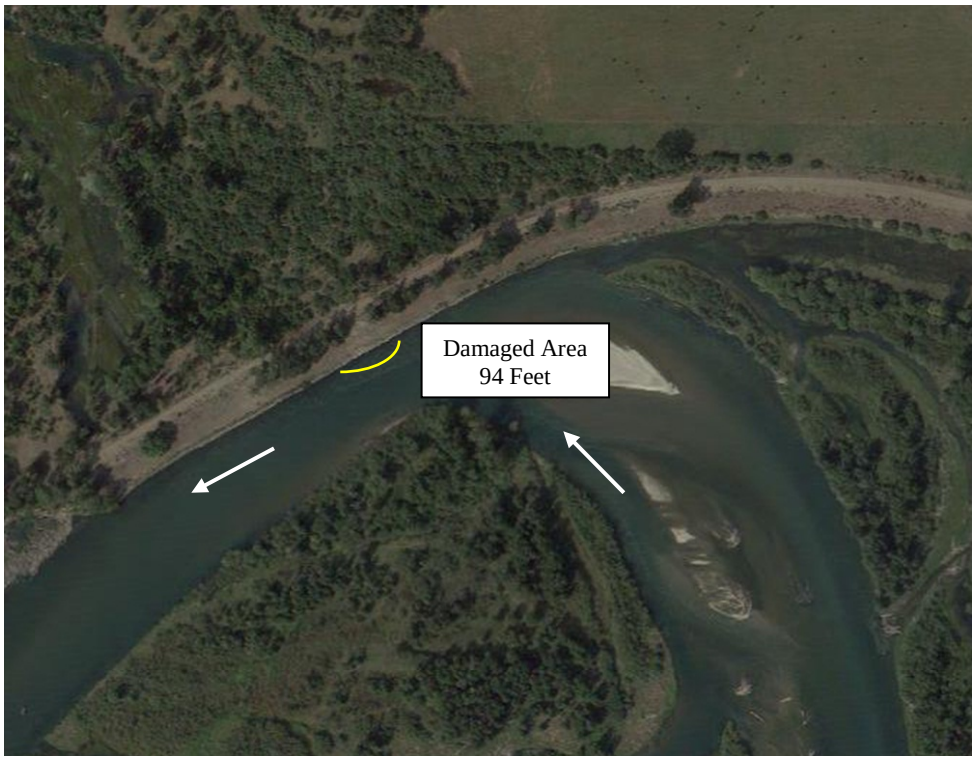

Figure 3. Henrys' Fork levee repair site located approximately 1.3 miles upstream from the confluence of the Snake and Henry's Fork Rivers.

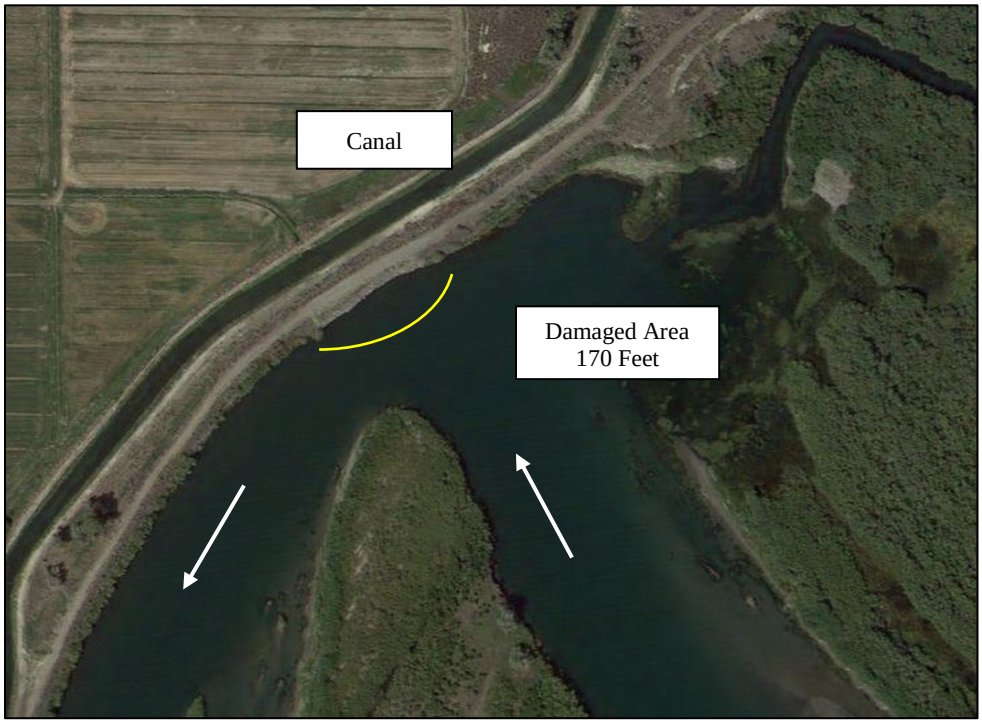

Figure 4. Robert's Bridge levee repair site located approximately 2.4 miles upstream from the Robert's Bridge on highway 48.

2.2.4. Burn Pit Riprap Site

Riprap would most likely come from the Burn Pit quarry site located approximately 10 miles northeast of Rigby, Idaho (Figure 5). The Burn Pit is surrounded by agricultural land and sage brush and juniper shrub habitat. This site was previously disturbed and has been used as a rock quarry for a number of years. An estimated 5,800 cubic yards of material would be hauled from this site to repair the three levee sites. The repair sites vary in distance between 8 to 24 miles from the quarry.

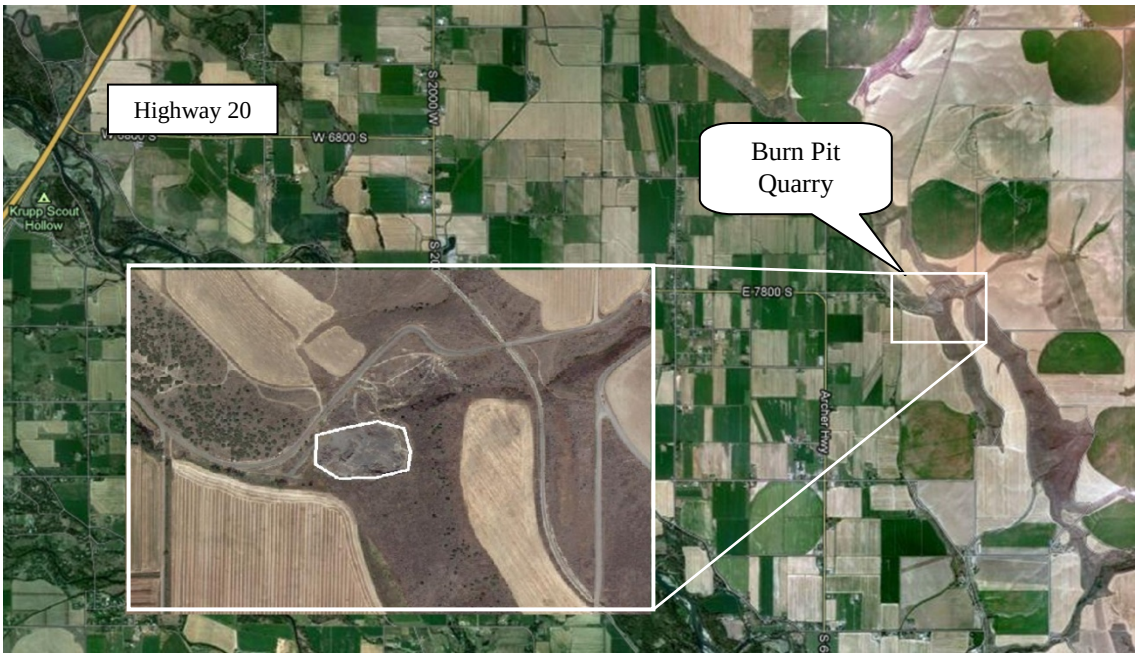

Figure 5. Location of the Burn Pit rock quarry, approximately 10 miles northeast of Rigby, Idaho.

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1. Introduction

This section describes the existing affected environment (existing condition of resources) and evaluates potential environmental effects on those resources for each alternative. Although only relevant resource areas are specifically evaluated for impacts, the Corps did consider all resources in the proposed project area and made a determination as to which ones to evaluate. The following resource areas were evaluated: Water Quality, Aquatic Resources, Vegetation, Wildlife, Threatened and Endangered Species, Cultural Resources, and Cumulative Impacts. ***It was determined that it was not necessary to evaluate Aesthetics/Visual Quality, Recreation, Noise, Climate, or Air Quality as implementation of the proposed action would not affect these resources.***

Table 1. Environmental Resources not evaluated further.

Environmental Component	Explanation
Aesthetics/Visual Quality	The proposed action would restore the levee to its original condition.

	No noticeable permanent structure or visual obstruction would remain.
Recreation	The proposed action would not interfere with current recreation activities (e.g. boating, swimming, fishing).
Environmental Justice	The proposed action would have no negative impacts (e.g. economically) on any minority/ethnic group or social class.
Noise	The project area is located in rural Jefferson county. The nearest receptor is a bed and breakfast less than 100 feet from the site. Construction noise will come from excavation and will take approximately 1 week. The construction is designed to receptor site.
Climate Change	The Council on Environmental Quality (CEQ) in draft NEPA guidance for documenting effects of climate change directed agencies to conduct quantitative analysis of Greenhouse Gas (GHG) emissions for any project with estimated GHG emissions over 25,000 metric tons of annually. It is not anticipated that the total GHG emissions produced by the week-long operation of excavation equipment will exceed the 25,000 metric ton GHG emission threshold.
Air Quality	The project area meets Idaho State's ambient air quality standards and is in "attainment". Air quality would be negligibly impacted by the proposed action**.**

3.2. Water Quality

3.2.1. Affected Environment

The Snake River near the Heise-Roberts levee system is a cold water system characterized by braided channels that migrate within the confines of the floodplain and levee system. Mean water temperatures range from 35 to 68 ^{o}F, while water discharge ranges from 1,200 cfs in November to 9,600 cfs in June. The floodplain is constrained but well established in some areas, while riparian vegetation is extensive and is dominated by cottonwood and willow habitats. The Snake River is not listed as impaired within the project area. However, irrigation water constitutes over 90% of all water use in the basin and returns in the area from this use are high in phosphorus, nitrates, and some pesticides.

3.2.2. Environmental Consequences

3.2.2.1. No Action Alternative

Under the No Action Alternative there would be minor effects on water quality in the project area. The Corps would not repair the Heise-Roberts levee system, but would allow the levees to continue to function in their damaged state. No ground disturbing activities would take place and no alterations of any levee would occur. The continued erosion of these levees would have minor, less than significant effects to water quality in the project area.

3.2.2.2. Proposed Alternative

Under the Proposed Alternative the effects to water quality in the project area would be greater than the no action alternative, but still less than significant. Excavation and levee re-shaping would require work below the high water mark of the Snake River. Effects would likely include increased sediment transport and increased turbidity at repair sites and for some distance downstream. These effects would

be localized and short term. To minimize sediment transport and increased turbidity, work would be conducted prior to high flows and would take approximately one week at each site.

The Clean Water Act (CWA) of 1972 establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Section 401 of the federal Clean Water Act requires that any federal activity that may result in a discharge to waters of the United States must first receive a water quality certification from the state in which the activity will occur. Section 404 of the Clean Water Act established a program to regulate the discharge of dredged or fill material into waters of the United States.

The project does not require a 404 permit. It is exempt under 33 CFR 323.4 November 13, 1986, as amended August 25, 1993. The exemption reads as follows: Maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures. Maintenance does not include any modification that changes the character, scope, or size of the original fill design. Emergency reconstruction must occur within a reasonable period of time after damage occurs in order to qualify for this exemption.

3.3. Aquatic Resources

3.3.1. Affected Environment

Over 75 species of invertebrates and a dozen fish species inhabit this section of the river. Fish species found in the area include longnose and speckled dace, mottled and Paiute sculpin, Utah sucker, mountain whitefish, smallmouth bass, cutthroat trout, rainbow trout, and brown trout. Aquatic invertebrates include caddisfly, mayfly, stonefly, blackfly, cranefly, various midge species, water mites, leaches, worms and snails.

3.3.2. Environmental Consequences

3.3.2.1. No Action Alternative

Under the No Action Alternative there would be minor effects on aquatic resources in the project area. The Corps would not repair the Heise-Roberts levee system, but would allow the levees to continue to function in their damaged state. No ground disturbing activities would take place and no alterations of any levee would occur. The continued erosion of these levees would have minor effects to aquatic resources in the area.

3.3.2.2. Proposed Alternative

Under the Proposed Alternative there would be minor, less than significant impacts to aquatic resources in the project area. Excavation and levee re-shaping would require work below the high water mark of the Snake River. Minor disturbance to fish and aquatic organisms may occur at the levee repair sites. Additional disturbance may occur downstream from these sites due to limited sediment transport and increased turbidity during excavation. However, effects would be localized and short term. Work is scheduled to occur prior to high flows when the river carries heavy sediment loads and has increased turbidity. Some aquatic invertebrates would be lost during excavation and sedimentation,

but these would be minor relative to the extensive populations of the river system. Fish would simply move to avoid repair sites until excavation is complete.

3.4. Wildlife

3.4.1. Affected Environment

The diverse habitat of the area is home to over 130 wildlife species, including: nearly 40 mammal species, 84 bird species, and 11 species of reptile or amphibian. Common mammal species include mule and whitetail deer, coyote, striped skunk, red fox, badger, beaver, deer mice, and cottontail rabbit. Bird species include over a dozen waterfowl species, several upland game bird species, numerous song and migratory birds, and a number of raptors. Some of the more common species include; Canada geese, barn swallow, magpie, red-tailed hawk, American robin, song sparrow, and mourning dove. Sensitive species of the valley include: greater sage grouse, northern leopard frog, white faced ibis, bald eagle, peregrine falcon, and yellow-billed cuckoo.

3.4.2. Environmental Consequences

3.4.2.1. No Action Alternative

Under the No Action Alternative there would be no effect on wildlife in the project area. The Corps would not repair the Heise-Roberts levee system, but would allow the levees to continue to function in their damaged state. No ground disturbing activities would take place and no alterations of any levee would occur. The continued erosion of these levees would have no negative impact to wildlife in the area.

3.4.2.2. Proposed Alternative

Under the Proposed Alternative there would be minor, less than significant impacts to wildlife in the project area. Grubbing and clearing would remove limited shrub habitat on the levee that may impact small birds and mammals in the area. However, the loss of shrub habitat is minor relative to existing shrub habitat in the area. There may be some loss of small mammals during excavation, but most of the species using this habitat would simply relocate to nearby habitats. In addition, construction is scheduled to be conducted prior to nesting seasons for migratory birds and should not impact these species. The introduction of heavy equipment into the area would cause larger, more mobile species to avoid the levee repair sites during construction. This disturbance would be relatively short in duration and restricted to relatively small areas.

3.5. Vegetation

3.5.1. Affected Environment

Climate is a major factor in determining vegetation. In the upper Snake River Basin, climate is influenced predominantly by eastward-moving air-masses from the Pacific Ocean. The area receives 8 to 10 inches of precipitation annually. The semi-humid mountainous parts of the basin receive the greatest amount of precipitation as snow, generally between November and March. The project area is located in the high desert province where sagebrush-steppe habitat has been replaced by agriculture in much of the

area. Primary crops in the area include barley, corn, oats, wheat, potatoes, and alfalfa. Vegetation in the valley bottom near the Snake River is markedly different than that in the upland areas. Upland sites are dominated by agriculture crops, grazing lands, or sagebrush and juniper shrub habitats, while riparian areas are characterized by riverbanks lined with cottonwood, willow, Russian olive, dogwood, water birch, and alder. Understory plants include horsetail, wild rose and milkweed. Open habitats are dominated by Kentucky blue grass, clover, meadow fescue, and sedges (Fertig et al. 2005). Riparian habitats near levee repair sites support limited vegetative cover.

3.5.2. Environmental Consequences

3.5.2.1. No Action Alternative

Under the No Action Alternative there would be no effect on vegetation in the project area. The Corps would not repair the Heise-Roberts levee system, but would allow the levees to continue to function in their damaged state. No ground disturbing activities would take place and no alterations of any levee would occur. The continued erosion of these levees would have no negative impact to vegetation in the area.

3.5.2.2. Proposed Alternative

Under the Proposed Alternative there would be minor, less than significant impacts to vegetation in the project area. Grubbing and clearing would remove limited shrub and grass habitat on the levee. A total of approximately ¼ acre of levee will be cleared for levee repair. Vegetation cover is limited on these areas. The loss of vegetation is minor relative to other existing habitats in the area.

3.6. Threatened and Endangered Species

3.6.1. Affected Environment

On November 15, 2012 the Corps reviewed the current list of threatened and endangered species that may exist in the project area under jurisdiction of the U.S. Fish and Wildlife Service (USFWS) for Jefferson and Madison counties in Idaho. There are no species under the jurisdiction of the National Marine Fisheries Service (NMFS) in the project area. The list of USFWS protected species is shown in Table 2.

Table 2. ESA listed species that may occur in the area potentially affected by this action.

Species	Scientific Name	Status
USFWS		
Listed Species		
Canada Lynx	*Lynx canadensis*	Threatened
Ute Ladies'-Tresses	*Spiranthes diluvialis*	Threatened

There is no critical habitat designated or proposed for these species within the project area.

3.6.2. Environmental Consequences

3.6.2.1. No Action Alternative

Under the No Action Alternative there would be no effect on Threatened and Endangered species in the project area. The Corps would not repair the Heise-Roberts levee system, but would allow the levees to continue to function in their damaged state. No ground disturbing activities would take place and no alterations of any levee would occur. The continued erosion of these levees would have no negative impact to listed species in the area.

3.6.2.2. Proposed Alternative

Under the Proposed Alternative there would be no effect on Threatened and Endangered species in the project area. Canada lynx are not known to exist in the project area and, based on their life history requirements, Canada lynx are not likely to occur in any areas that are part of this proposed action. Ute ladies'- tresses was first discovered in Idaho along the South Fork of the Snake River. The species is now known from Bonneville, Fremont, Jefferson, and Madison counties along the Snake River and from wetland sites along the Henry's Fork River. The nearest population of Ute ladies' tresses occurs on north Lorenzo levee approximately 1,200 feet upstream from the Lorenzo repair site. No populations of Ute ladies' tresses occur within the project area of impact.

3.7. Historic/Cultural Resources

3.7.1. Affected Environment

The area of potential effect (APE) for the proposed projects is the levee themselves. The proposed rehabilitation will involve restoring the levee revetments in three locations to the as-constructed condition by repairing riprap and riprap bedding. All of the levees are accessible by existing roads, including the maintained access roads located on the levees themselves. No new roads will be constructed for this project. Equipment staging areas would be located at existing borrow areas and on the roads that form the tops of the levees.

Ray Tracy (2005), an archaeologist with the Corps, evaluated proposed repairs on the opposite bank from the current repair location number one. Tracy (2005:5) reviewed site and survey records for that project, and submitted a site form for what was described as the Lorenzo Reach, Heise-Roberts Levee (Temp No. 5N37E-001). Ultimately, that report looked at nearby sites, and determined that the proposed repairs were part of an on-going program (the report cites 23 previous repair actions on the levee) where repairs brought the levee back to its original configuration, and that the historic "Lorenzo Reach, Heise-Roberts Levee" would not be adversely affected by the proposed repairs (2005:7).

Two of the three proposed repair actions reviewed for this report (repair locations number 1 and 2) are within the historic Lorenzo Reach, Heise-Roberts Levee. The third repair is within the 1968 extension portion of the Heise-Roberts Levee, an area that has not reached 50 years of age. For all of the actions none of the proposed repair work has the potential to affect resources outside of the Heise-Roberts Levee system. Similar to the evaluation made by Tracy (2005), the two actions proposed for the historic portions of the levee will not adversely affect the historic property, because plans only call for using similar materials to restore the levees to their original configuration. The proposed repair of three sections of the Heise-Roberts Levee will have no adverse effect to historic properties. If archaeological remains are found during construction, all work in the area of the discovery will cease (construction can proceed elsewhere), efforts will be made to protect the find, and the District Archaeologist will be contacted immediately.

3.7.2. Environmental Consequences

3.7.2.1. No Action Alternative

Under the No Action Alternative there would be no adverse effect on Historic/Cultural Resources in the project area. The Corps would not repair the Heise-Roberts levee system, but would allow the levees to continue to function in their damaged state. No ground disturbing activities would take place and no alterations of any levee would occur. The continued erosion of these levees would have no negative impact to listed species in the area.

3.7.2.2. Proposed Alternative

Under the Proposed Alternative there would be no adverse effect on Historic/Cultural Resources in the project area. Because plans call for using similar materials to restore levees to their original configuration, the preferred action alternative would not adversely affect the historic property. The proposed repair of three sections of the Heise-Roberts Levee will have no adverse effect to historic properties.

3.8. Soils

3.8.1. Affected Environment

The Snake River enters the Snake River Plain over an alluvial fan near Heise, Idaho and has relatively high velocities that transport large quantities of sand and gravel. Early surveys reveal that top soil in the area is from 1 to 8 feet deep and is composed primarily of silt, silty sand, or clay silt (USACE 1948). More recent studies have identified the dominant soils of the area as Gravel, sand, and sandy silt. These soils form islands, and bar-tops and beaches exposed at low water levels and are subject to flooding and high water tables. The thickness of these soils is generally less than 10 feet (Phillips and Welhan 2011).

3.8.2. Environmental Consequences

3.8.2.1. No Action Alternative

Under the No Action Alternative there may be significant negative impacts to soils in the project area. The Corps would not repair the Heise-Roberts levee system, but would allow the levees to continue to function in their damaged state. Dam or levee failures can have a greater environmental impacts than that associated with a normal flood event. The soil loss from erosion and scouring would be significantly greater, because of a large amount of fast-moving water affecting a small area. Large amounts of sediment from erosion can alter the landscape and change the ecosystem. In addition, hazardous materials are carried away from flooded properties and distributed throughout the floodplain. Industrial and agricultural chemicals and wastes, solid wastes, raw sewage, and common household chemicals comprise the majority of hazardous materials spread by floodwaters along the flood zone.

3.8.2.2. Proposed Alternative

Under the Proposed Alternative there would be minor, less than significant short-term effects on soils in the project area. Long-term effects would be positive. Excavation of eroded levees would cause

minor disturbances to already disturbed levee sites. Once the levee repairs are complete, soil erosion would be reduced from current levels and future soil losses would be minimized.

3.9. Socioeconomics

3.9.1. Affected Environment

The Heise-Roberts levee system is located within Jefferson and Madison Counties, Idaho. In 2010, Idaho had an estimated population of 1,567,582 persons and Jefferson and Madison Counties had estimated populations of 26,140 and 37,536 respectively. Both counties experienced an estimated 36 percent increase in population since 2000 (U.S. Census Bureau 2010).

The median income for Jefferson and Madison Counties is 37 and 32 respectively. Major industries in the area include Agriculture & Forestry, Educational Services, Health Care, Construction, Professional Services, Lodging & Food Services, Food Processing, Government, Social Services, Grocery Wholesalers, and Retail Services. According to the Bureau of Labor Statistics, in 2001, the unemployment rate of Jefferson and Madison Counties for 2011 was 7.1 and 5.5 percent respectively in 2011. The national average at that time was 8.9 percent (U.S. Bureau of Labor Statistics).

3.9.2. Environmental Consequences

3.9.2.1. No Action Alternative

Under the No Action Alternative there may be significant negative impacts to socioeconomics in the project area. The Corps would not repair the Heise-Roberts levee system, but would allow the levees to continue to function in their damaged state. Levee failure could result in the loss of property and livelihood. The levee at repair site 1 near Lorenzo, Idaho, protects a bed and breakfast, a railroad bridge and a major highway bridge. The loss of the levee at this site could result in the loss or damage of these resources. The levee at repair site 3 protects a canal that provides water for agriculture in the valley. The loss of this canal could result in the loss of agriculture products for a portion of the valley.

3.9.2.2. Proposed Alternative

Under the Proposed Alternative there are no negative impacts to socioeconomics in the project area. The repair of sections of the Heise-Roberts levee system would result in the protection of private and public property.

3.10. Cumulative Impacts

The National Environmental Policy Act (NEPA) and the Council on Environmental Quality (CEQ) regulations implementing the Act require federal agencies to consider the cumulative impacts of their actions. Cumulative effects are defined as, “the impact on the environment which results from the incremental impact of an action when added to other past, present and reasonable foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions” (40 CFR § 1508.7). Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time.

The Hiese-Roberts levee system has a history of periodic environmental impacts tracing back to the construction of the original levees. Regular inspections have identified intermittent repair needs. These repairs have been similar in scope to the proposed action. Damaged locations were identified, repairs made and the levee returned to its original shape or condition. Impacts were temporary in nature and the disturbance was localized. Access roads to maintain and inspect levees are minimally maintained and occasionally require minor repairs. These effects are minor and localized.

Population growth in both Jefferson and Madison counties continues to increase. From 2000 to 2010 both counties experienced population increases of over 36%. These growth rates are among the highest in the state. Development and new housing starts to support these growth rates also continues to increase. While zoning laws restrict development immediately adjacent to much of the Snake River, limited development does occur. Foreseeable development that may impact the project area include: 1) construction of a FedEx distribution center just south of the Snake River on State Highway 20 near Lorenzo, Idaho, 2) reconstruction of the Thornton interchange on State Highway 20 in 2016, and 3) closure of the state boat ramp off State Highway 20 on the north shore of the Snake River and construction of a new boat ramp on the south shore of the Snake river in 2013-2014.

There are no known major cumulative impacts from the proposed action to repair the Heise-Roberts Levee system. The expected impacts are short term and localized and will not have significant negative impacts to resources. All repairs will be carried out in previously disturbed habitats and will not enlarge the footprint of the levee system.

4. COMPLIANCE WITH APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS

4.1. National Environmental Policy Act

This environmental assessment was prepared pursuant to regulations implementing the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.). NEPA provides a commitment that Federal agencies will consider the environmental effects of their proposed actions prior to implanting those actions. This includes making their findings available for public review and comment. Completion of this environmental assessment and signing of a Finding of No Significant Impact (FONSI), if applicable, fulfills the requirements of NEPA.

4.2. Endangered Species Act

The Endangered Species Act (ESA) established a national program for the conservation of threatened and endangered fish, wildlife and plants and the habitat upon which they depend. Section 7(a)(2) of the ESA requires Federal agencies to consult with the USFWS and NMFS, as appropriate, to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or adversely modify or destroy their critical habitats. Section 7(c) of the ESA and the Federal regulations on endangered species coordination (50 CFR §402.12) require that Federal agencies prepare biological assessments of the potential effects of major actions on listed species and critical habitat.

The Corps has determined that this action, as proposed, would have no effect on listed species or their designated critical habitats. See Appendix A: Federal Natural Resources Law Compliance and

Biological Evaluation Memorandum for Record dated 14 December 2012. No formal or informal consultation is required for projects that result in a no effect determination. However, the USFWS and Idaho Fish and Game were contacted to coordinate the identification of potential listed and protected resources. None were known to exist in the project area and no further coordination was necessary. See Appendix A for additional information on the Corps consideration of potential effects of the proposed action under the Fish and Wildlife Coordination Act, the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

4.3. National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966 as amended directs federal agencies to assume responsibility for all cultural resources under their jurisdiction. Section 106 of NHPA requires agencies to consider the potential effect of their actions on properties that are listed, or are eligible for listing, on the National Register of Historic Places (NRHP). The NHPA implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, requires that the federal agency consult with the State Historic Preservation Officer (SHPO), Tribes and interested parties to ensure that all historic properties are adequately identified, evaluated and considered in planning for proposed undertakings.

The Corps has determined that this action, as proposed, would result in no adverse effect to historic properties. The Corps did not identify any historic properties of potential religious or cultural significance to Native American tribes so no tribes were consulted. On December 21, 2012 the Corps initiated consultation with the Idaho SHPO via a letter seeking concurrence with a finding of no adverse effect to historic properties (Appendix B).

4.4. Clean Water Act

The Clean Water Act (CWA) of 1972 establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Section 401 of the federal Clean Water Act requires that any federal activity that may result in a discharge to waters of the United States must first receive a water quality certification from the state in which the activity will occur. Section 404 of the Clean Water Act established a program to regulate the discharge of dredged or fill material into waters of the United States.

The project does not require a 404 permit. It is exempt under 33 CFR 323.4 November 13, 1986, as amended August 25, 1993. The exemption reads as follows: Maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures. Maintenance does not include any modification that changes the character, scope, or size of the original fill design. Emergency reconstruction must occur within a reasonable period of time after damage occurs in order to qualify for this exemption.

5. COORDINATION, CONSULTATION, AND PUBLIC INVOLVEMENT

5.1 Agency Consultation and Coordination

This EA is being distributed for public and agency review and comment and is also available through the Walla Walla District Corps of Engineers website at www.nww.usace.army.mil. The distribution list is found in table 3.

Table 3. List of individuals or agencies for distribution of this EA.

Individual	Organization
Blair Kay	City of Rexburg, Idaho
Dave Swager	City of Rigby, Idaho
Emily Cramer	Jefferson County, Idaho
Brent Saurey	Madison County, Idaho
Kerry Lundquist	Flood Control District No. 1
Rob Cavallaro	Idaho Department of Fish and Game
Troy Saffle	Idaho Department of Environmental Quality
Travis Pitkin	Idaho State Historic Preservation Office
Melanie Cota	U.S. Fish and Wildlife Service
Tracy Degring	U.S. Environmental Protection Agency
Renee Richardson	Senator James Risch's Office
Leslie Huddleson	Senator Michael Crapo's Office
Colleen Erickson	Congressman Mike Simpson's Office

5.2 Public Involvement

This EA was made available to potentially interested members of the public and local, state, and federal agencies for a 15-day review and comment period from January 17, 2013 through February 1, 2013.

6. REFERENCES

Fertig, Walter, Rick Black, and Paige Wolken. 2005. Rangewide Status Review of Ute Ladies'-Tresses *(Spiranthes diluvialis)*. Prepared for the U.S. Fish and Wildlife Service and the Central Utah Water Conservancy District.

Phillips, William, J. and John A. Welhan. 2011. Geologic Map of the Rigby Quadrangle, Jefferson and Bonneville Counties, Idaho. Idaho Geological Survey, University of Idaho, Moscow, Idaho.

Tracy, Ray. 2002. Cultural Resources Survey Report: Heise Roberts Levee Repair, 2005. Report prepared by the US Army Corps of Engineers, Walla Walla District. Walla Walla, WA.

United States Bureau of Labor Statistics. 2011. Local Area Unemployment Statistics: http://www.bls.gov/lau/

United States Census Bureau. 2010. State & County QuickFacts, Idaho. Jefferson and Madison Counties: http://quickfacts.census.gov/qfd/states/16000.html

United Sates Army Corps of Engineers (USACE). 1948. Definite Project Report: Heise-Roberts and Weiser Areas, Snake River, Idaho. U.S. Army Corps of Engineers District Walla Walla, Washington.

APPENDIX A

Section 7 – Federal Natural Resources Law Compliance and Biological Evaluation, Memorandum for Record Regarding Consultation for the Endangered Species Act, U.S. Fish and Wildlife Coordination Act, the Migratory Bird Treaty Act, and the Bald and Golden Eagle Protection Act.

US Army Corps of Engineers
Walla Walla District

BUILDING STRONG®

IDAHO LEVEE REHAB

HEISE-ROBERTS LEVEE REPAIR

PM-EC-2012-0087c

Federal Natural Resources Law Compliance
and
Biological Evaluation

Memorandum for Record

U.S. Army Corps of Engineers
Walla Walla District
Environmental Compliance Section

14 December 2012

CHAMBERLAIN.CHARLES.B.1366539944

Digitally signed by CHAMBERLAIN.CHARLES.B.1366539944
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=CHAMBERLAIN.CHARLES.B.1366539944
Date: 2012.12.12 14:25:02 -08'00'

Charles Chamberlain
Fishery Biologist
U.S. Army Corps of Engineers
Walla Walla District
Environmental Compliance Section

TICE.BENJAMIN.J.1229098566

Digitally signed by TICE.BENJAMIN.J.1229098566
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=TICE.BENJAMIN.J.1229098566
Date: 2012.12.12 14:33:10 -08'00'

Ben Tice
Biologist/Reviewer
U.S. Army Corps of Engineers
Walla Walla District
Environmental Compliance Section

CENWW-PM-PD-ECS

MEMORANDUM FOR RECORD

To: File
From: Charles Chamberlain, Fishery Biologist
Subject: Idaho Levee Rehab, Heise-Roberts Levee Repair
Date: 14 December 2012

1. Introduction

The U.S. Army Corps of Engineers, Walla Walla District (Corps) proposes to repair three sections of the Heise-Roberts Levee system on the Snake River (Figure 1). The levee system was damaged in by high flows in 2011.

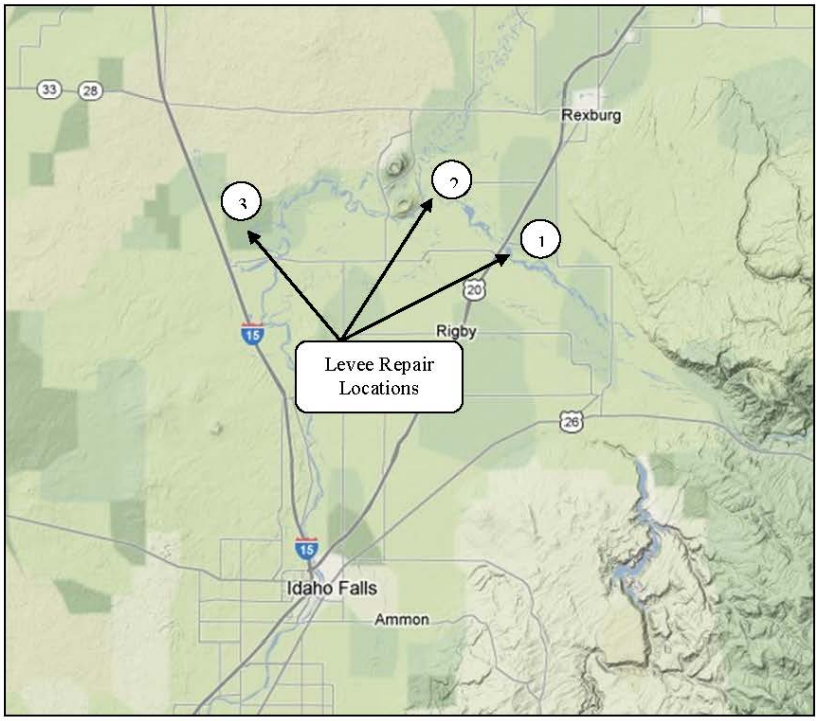

Figure 1. Location of Levee Repair Sites north of Idaho Falls, Idaho.

The Corps has determined that the proposed action will have no effect on ESA-listed species that may occur in the area or designated critical habitat, there will be no adverse

effects to Essential Fish Habitat, and there will be no take of migratory birds or bald or golden eagles as a result of implementation if the proposed project.

2. Project Description

2.1. Project Area and Baseline Conditions

The Heise-Roberts levee system protects private and public properties along the Snake River from Heise Hot Springs east of Rigby, Idaho downstream to Roberts Road west of Rigby. Recent inspections have revealed areas of levee erosion that are in need of repair.

2.1.1. Lorenzo Bridge

The Lorenzo Bridge repair consists of a 285 foot section of levee on the south bank of the Snake River just upstream from highway 20 (Figure 2). The levee protects a business (bed and breakfast) and the approach to a railroad and highway bridge. The riprap has eroded away and needs replacing. No trees exist on this section of levee, but a few shrubs are present. During summer flows, the river is about 7 feet deep at this site and the bank height above water surface is approximately 15 feet.

Figure 2. Lorenzo Bridge levee repair site located just upstream of Highway 20 approximately five miles north of Rigby, Idaho.

2.1.2. Henry's Fork

The Henry's For repair site is 94 feet long and is located on the north bank of the Snake River approximately 1.3 river miles upstream from the confluence of the Snake and Henry's Fork rivers (Figure 3). The levee protects a wetland complex and a riparian forest and is made in two levels. Only the lower level was damaged. They upper level is set back 30 to 50 feet from the lower level. No trees exist on the lower level of levee. Some mature cottonwoods and other trees are located along the toe of the upper level. The summer river depth is about 10 feet deep at this site and the bank height above the water surface is approximately 13 feet.

Figure 3. McGarry property levee repair site located approximately 1.3 miles upstream from the confluence of the Snake and Henry's Fork Rivers.

2.1.3. Robert's Bridge

The Robert's Bridge repair site is 170 feet in length and is approximately 2.4 river miles upstream of Roberts Bridge on highway 48. The levee protects a canal adjacent to the river. There is some sage brush growing in the upper margins of the levee. Some sage brush would be damaged within the haul road. River depth is about 10 feet at this site, while the bank height above the water surface is approximately 37 feet.

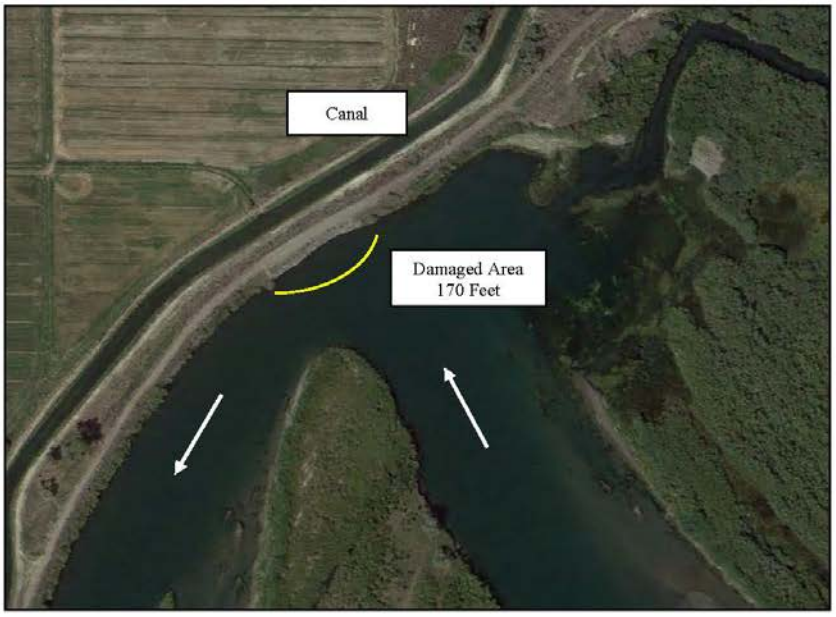

Figure 4. Robert's Bridge levee repair site located approximately 2.4 miles upstream from the Robert's Bridge on highway 48.

Figure 5. Location of the Burn Pit rock quarry, approximately 10 miles northeast of Rigby, Idaho.

2.1.4. Burn Pit Riprap Site

Riprap will most likely come from the Burn Pit quarry site located approximately 10 miles northeast of Rigby, Idaho (Figure 5). The Burn Pit is surrounded by agriculture and sage brush and juniper shrub habitat. This site is previously disturbed and has been used as a rock quarry for a number of years. An estimated 5,800 cubic yards (cy) of material would be hauled from this site to repair the three levee sites. Sites vary in distance from the quarry from 8 to 24 miles.

2.2. Work Schedule

Work will be completed early spring 2013.

2.3. Project Details

2.3.1. Lorenzo Bridge

An area of approximately 672 square yards will be cleared and grubbed to remove shrubs and clear the work area. The slope of the site will be excavated to a 2:1 slope and approximately 1000 cy of quarry spalls will be placed on the slope. A final layer of Riprap two feet thick will be placed on the quarry spalls. Riprap will be hauled from the Burn Pit about 8 miles from the site.

2.3.2. Henry's Fork

Approximately 600 yards of material will be excavated to create a 2:1 slope at the site, after which about 322 cy of quarry spalls will be placed on the excavated slope. A final layer of riprap two feet thick will be placed on the quarry spalls. Riprap will be hauled from the Burn Pit about 12 miles from the site.

2.3.3. Robert's Bridge

An area of approximately 494 square yards will be cleared and grubbed to remove shrubs and clear the work area. About 2000 yards of material will be excavated to create a 2:1 slope and approximately 1200 cy of quarry spalls will be placed on the slope. A final layer of riprap two feet thick will be placed on the quarry spalls. Riprap will be hauled from two sites. Unused riprap from a previous project only 3 miles away will be used first, after which, the remaining riprap will come from the Burn Pit about 23 miles from the site.

3. Federal Natural Resources Laws

3.1. Endangered Species Act of 1973

On December 11, 2012 the Corps reviewed the current list of threatened and endangered species that pertain to the areas affected by this action under jurisdiction of the U.S. Fish

and Wildlife Service (USFWS)[1] for Jefferson and Madison counties in Idaho (see attachment 1). There are no species under the jurisdiction of the National Marine Fisheries Service (NMFS) in the project area. The list of USFWS protected species is shown in Table 1. There is no Critical habitat designated within the area.

Table 1. Species that may occur in the area potentially affected by this action.

Species	Scientific Name	Status
USFWS		
Listed Species		
Canada Lynx	*Lynx canadensis*	Threatened
Ute Ladies'-Tresses	*Spiranthes diluvialis*	Threatened

3.1.1. Canada Lynx

Lynx in the contiguous United States are at the southern margins of a widely-distributed range across Canada and Alaska. The center of the North American range is in north-central Canada. Lynx occur in mesic coniferous forests that have cold, snowy winters and provide a prey base of snowshoe hare (Ruggiero et al. 2000). These forests are generally described as boreal forests. Lynx survivorship, productivity, and population dynamics are closely related to snowshoe hare density in all parts of its range.

Canada lynx are not known to exist, and, based on the biological and necessary habitat requirements, Canada lynx are not likely to occur in any areas that are part of this proposed action. ***There will be no effect on Canada lynx. There is no designated critical habitat for Canada lynx in the area, consequently, there will be no effect to Canada lynx critical habitat.***

3.1.2. Ute Ladies'-tresses

Ute ladies' tresses (*Spiranthes diluvialis*) is a white-flowered orchid that occurs in low to mid-elevation wetlands and riparian zones of the Central Rockies and adjacent plains. It was listed as Threatened under the Endangered Species Act in 1992. Previously known from Colorado, Utah, Wyoming, and Montana, it was first discovered in Idaho by Mabel Jones in 1996 along the South Fork of the Snake River (Moseley 1997). The species is now known from Bonneville, Fremont, Jefferson, and Madison counties along the Snake River and from wetland sites along the Henry's Fork River. The nearest population of Ute ladies' tresses occurs on the north Lorenzo levee approximately 1,200 feet upstream from the Lorenzo repair site. There are no known populations of Ute ladies'-tresses in the project area of effect (Figure 6).

Based on the geographic distribution, the proposed action will have no effect on any individual plants of this species.

[1] http://www.fws.gov/idaho/species/IdahoSpeciesList.pdf

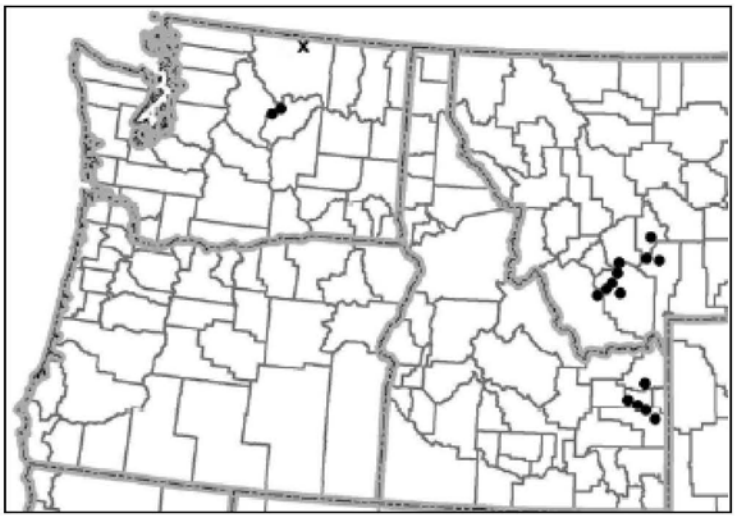

Figure 6. Known distribution of *Spiranthes diluvialis* in western North America circa July 2005. Extant populations are indicated by black circles, while extirpated populations are marked by an "x". Excerpted from Fertig et al. 2005.

3.2. Magnuson-Stevens Fishery Conservation and Management Act of 1976, as Amended

The consultation requirement of section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) directs Federal agencies to consult with NMFS on all actions, or proposed actions that may adversely affect Essential Fish Habitat (EFH). Adverse effects include the direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality or quantity of EFH. Adverse effects to EFH may result from actions occurring within EFH or outside EFH, and may include site-specific or EFH-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810). Section 305(b) also requires NMFS to recommend measures that may be taken by the action agency to conserve EFH.

The Pacific Fishery Management Council (PFMC) designated EFH for Chinook salmon, Coho salmon, and Puget Sound pink salmon (PFMC 1999). There is no EFH near the project area. ***Consequently, there will be no modification or adverse effects to EFH from the proposed action.***

3.3. Fish and Wildlife Coordination Act of 1958, As Amended

The Fish and Wildlife Coordination Act (FWCA) authorizes the USFWS the authority to evaluate the impacts to fish and wildlife species from proposed Federal water resource development projects that could result in the control or modification of a natural stream or body of water that might have effects on the fish and wildlife resources that depend on that body of water or its associated habitats. ***This action does not alter or modify stream-flow, but only repairs existing levees. Consequently, the action does not involve activities subject to the FWCA.***

3.4. Migratory Bird Treaty Act of 1918, As Amended

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. §§ 703-712, as amended) prohibits the taking of and commerce in migratory birds (live or dead), any parts of migratory birds, their feathers, or nests. Take is defined in the MBTA to include by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing or transporting any migratory bird, nest, egg, or part thereof. A single osprey nest is located on the railroad bridge approximately 300 feet downstream from the Lorenzo Bridge levee repair site. Osprey are relatively tolerant to human disturbance, but are most susceptible during nesting season, which extends from late March through late July. Although the Lorenzo Bridge levee repair site is in proximity of the existing nest the repair will be concluded prior to nesting season.

A wide variety of species listed under the MBTA occur near or within the project area. Little nesting habitat exists in the project area and no trees will be removed. Work will occur prior to the nesting season for most migratory birds, including osprey. ***Therefore, the proposed action will not result in taking migratory birds, their nests, eggs, or parts thereof.***

3.5. Bald and Golden Eagle Protection Act of 1940, As Amended

The Bald and Golden Eagle Protection Act (BGEPA) prohibits the taking or possession of and commerce in bald and golden eagles, with limited exceptions, primarily for Native American Tribes. Take under the BGEPA includes both direct taking of individuals and take due to disturbance. Disturbance is further defined on 50 CFR 22.3.

Eagle nests are not known to occur in proximity of the levee repair sites. The nearest existing nest is over one mile from the Henry's Fork Repair site. ***Therefore, disturbance of nesting bald eagles is unlikely to occur and no take of either bald or golden eagles will occur due to the proposed project.***

4. Environmental Considerations

The Corps commonly places environmental stipulations and recommendations on projects as an integral part of the proposed action. These requirements and recommendations must be implemented in conjunction with the proposed action to ensure

that the Corps can defensibly make a determination that the proposed action will not affect species or habitats protected by the natural resources laws addressed in this document.

4.1. Stipulations

1. No ground disturbing work may be performed within ¼ mile of a known Bald Eagle nest from February 1 to September 1.
2. No ground disturbing work may be performed within ¼ mile of an occupied osprey nest from April 1 to August 1.
3. No disturbance or destruction of occupied migratory bird nests will occur.

4.2. Recommendations

No additional recommendations will be required to minimize impacts of this project

5. Determinations

5.1. Determination Summary

Table 2. Determinations for the area potentially affected by this action.

ESA		
	Species	**Critical Habitat**
Canada Lynx	No Effect	No Effect
Ute Ladies'-Tresses	No Effect	None Designated
MSA		
No Adverse Effects		
FWCA		
Not Applicable		
MBTA		
No Take W/Stipulations		
BGEPA		
No Take W/Stipulations		

After a review of the species lists and critical habitat lists, a review of the biological requirements of the identified species, and a review of the project description, timing, and nature of the action, the Corps has determined that species will be spatially or temporally separated from this action, and species and critical habitats are not likely to be exposed to or respond to those potential stressors. ***Consequently, the Corps has determined that this action will have NO EFFECT for all ESA-listed species and their designated critical habitats (Table 2). The Corps has also determined that there will be no adverse effects to EFH, migratory birds, or eagles.***

This project will require further review in order to re-analyze the potential adverse effects on federal resource species or habitats if any significant changes in the action are proposed or occur after the date of this document.

6. References

Fertig, Walter, Rick Black, and Paige Wolken. 2005. Rangewide Status Review of Ute Ladies'-Tresses *(Spiranthes diluvialis)*. Prepared for the U.S. Fish and Wildlife Service and the Central Utah Water Conservancy District.

Moseley, R.K. 1997. Ute Ladies' Tresses (*Spiranthes diluvialis)* Inventory: Idaho Transportation Department, District 5 Road Projects. Idaho Fish and Game, Boise, Idaho.

PFMC (Pacific Fishery Management Council). 1999. Amendment 14 to the Pacific Coast Salmon Plan. Appendix A: Description and identification of essential fish habitat, adverse impacts, and recommended conservation measures for salmon. Pacific Fishery Management Council, Portland, Oregon.

Ruggiero, L.F., K.B. Aubry, S.W. Buskirk, G.M. Koehler, C.J. Krebs, K.S. McKelvey, and J.R. Squires. 2000. The scientific basis for lynx conservation: qualified insights. Pages 443-454 *in* L.F. Ruggiero, K.B Aubry, S.W. Buskirk, et al. Ecology and conservation of lynx in the contiguous United States. University Press of Colorado, Boulder.

ATTACHMENT 1 – ESA Listed Species for the State of Idaho.

United States Department of the Interior
Fish and Wildlife Service
Idaho Fish And Wildlife Office
1387 S. Vinnell Way, Room 368
Boise, Idaho 83709
Telephone (208) 378-5243
http://www.fws.gov/idaho

U.S. Fish and Wildlife Service - Idaho Fish and Wildlife Office
Endangered, Threatened, Proposed, and Candidate Species
With Associated Proposed and Critical Habitats in Idaho

December 11, 2012

This Letter and Species List
The U.S. Fish and Wildlife Service (Service) is providing this letter in response to your inquiry regarding federally listed, proposed, and candidate species, and proposed and designated critical habitats that may occur in Idaho. Use the attached Species List to ensure compliance with Sections 7 and 9 of the Endangered Species Act (Act). As a federal agent or designated non-federal representative, use this list in conjunction with best available information to assess whether a proposed action may affect these species or their habitats. If you determine a proposed action may affect a species or their habitats, contact the Service to initiate informal or formal consultation. This list is only valid for a period of 90 days. An updated list can be obtained by downloading the PDF file: www.fws.gov/idaho/species/IdahoSpeciesList.pdf.

Candidate Species Conservation
Though Candidate species have no protection under the Act, they are included in the Species List for early planning consideration. Candidate species could be proposed or listed during the project planning period. The Service advises project proponents to evaluate potential effects to Candidate species that may occur in the project area. Should the species be listed, this may expedite Section 7 consultation under the Act.

Effects Beyond Idaho
If the anticipated effects of an action extend beyond the range of Idaho, please contact the appropriate Service Contact for lists of species and habitats occurring in those adjacent states.

U.S. Fish and Wildlife Service Contacts
Idaho - Idaho Fish and Wildlife Office, Bob Kibler, bob_kibler@fws.gov, (208) 378-5255
Montana - Montana Ecological Services Field Office, (406) 449-5225
Nevada - Nevada Fish and Wildlife Office, (775) 861-6300
Oregon - LaGrande Field Office, (541) 962-8584
Utah - Utah Ecological Service Field Office, (801) 975-3330
Washington - Eastern Washington Field Office, (509) 891-6839
Wyoming - Wyoming Ecological Services Field Office, (307) 772-2374

NOAA Fisheries Species
Listed or proposed species that are under National Marine Fisheries Service's (NOAA Fisheries) jurisdiction do NOT appear on the Service's Species Lists. In Idaho, please contact NOAA Fisheries at (208) 378-5696 or visit NOAA Fisheries' webpage at http://www.nwr.noaa.gov/Species-Lists.cfm for consultation information.

Additional Information
To obtain additional information about the Act, please visit one of the Service's internet sites at http://www.fws.gov/endangered/laws-policies/index.html; http://www.fws.gov/idaho/agencies.htm; or speak with a Service Contact.

This species list was revised by the USFWS on 11/28/2012, and is valid for 90 days after 12/11/2012.

U.S. Fish and Wildlife Service • Idaho Fish and Wildlife Office

CANDIDATE, PROPOSED AND LISTED SPECIES & PROPOSED AND DESIGNATED CRITICAL HABITAT IN IDAHO

	Herps	Birds		Mammals						Fish		Mollusks				Plants						
Common Name	**Columbia Spotted Frog (Great Basin Population)**	**Greater Sage-Grouse**	**Yellow-Billed Cuckoo**	**Canada Lynx**	**Grizzly Bear**	**Northern Idaho Ground Squirrel**	**Selkirk Mountains Woodland Caribou**	**Southern Idaho Ground Squirrel**	**North American Wolverine**	**Bull Trout**	**Kootenai River White Sturgeon**	**Banbury Springs Lanx**	**Bliss Rapids Snail**	**Bruneau Hot Springsnail**	**Snake River Physa**	**Goose Creek Milkvetch**	**MacFarlane's Four-O'Clock**	**Packard's Milkvetch**	**Spalding's Catchfly**	**Ute Ladies'-Tresses**	**Water Howellia**	**Whitebark Pine**
Scientific Name	*Rana luteiventris*	*Centrocercus urophasianus*	*Coccyzus americanus*	*Lynx canadensis*	*Ursus arctos horribilis*	*Spermophilus brunneus brunneus*	*Rangifer tarandus caribou*	*Spermophilus brunneus endemicus*	*Gulo gulo luscus*	*Salvelinus confluentus*	*Acipenser transmontanus*	*Lanx* sp.	*Taylorconcha serpenticola*	*Pyrgulopsis bruneauensis*	*Haitia (Physa) natricina*	*Astragalus oxyrinchus*	*Mirabilis macfarlanei*	*Astragalus cusickii var. packardiae*	*Silene spaldingii*	*Spiranthes diluvialis*	*Howellia aquatilis*	*Pinus albicaulis*
Ada		C	C						C	T					E							
Adams		C		T		T		C	C	T-DCH												C
Bannock		C	C						C													
Bear Lake		C		T					C													C
Benewah				T					C	T-DCH									T		T	
Bingham		C	C						C											T		
Blaine		C	C	T					C	T-DCH												C
Boise			C	T					C	T-DCH												C
Bonner				T	T		E		C	T-DCH												C
Bonneville		C	C	T	T				C											T		C
Boundary				T-DCH	T		E-DCH		C	T-DCH	E-DCH											C
Butte		C		T					C	T-DCH												C
Camas		C		T					C	T-DCH												C
Canyon			C						C						E							
Caribou		C		T					C													C
Cassia		C	C												E	C						
Clark		C	C	T	T				C													C
Clearwater				T					C	T-DCH												C
Custer		C	C	T					C	T-DCH												C
Elmore		C	C	T					C	T-DCH			T		E							C
Franklin		C		T					C													
Fremont		C	C	T	T				C											T		C
Gem		C						C	C	T-DCH												C

Table Key: C = Candidate Species P= Proposed Species T=Threatened Species E=Endangered Species PCH= Proposed Critical Habitat DCH=Designated Critical Habitat

This species list was revised by the USFWS on 11/28/2012, and is valid for 90 days after 12/11/2012.

U.S. Fish and Wildlife Service • Idaho Fish and Wildlife Office

CANDIDATE, PROPOSED AND LISTED SPECIES & PROPOSED AND DESIGNATED CRITICAL HABITAT IN IDAHO

	Herps	Birds		Mammals						Fish		Mollusks				Plants						
Common Name	**Columbia Spotted Frog (Great Basin Population)**	**Greater Sage-Grouse**	**Yellow-Billed Cuckoo**	**Canada Lynx**	**Grizzly Bear**	**Northern Idaho Ground Squirrel**	**Selkirk Mountains Woodland Caribou**	**Southern Idaho Ground Squirrel**	**North American Wolverine**	**Bull Trout**	**Kootenai River White Sturgeon**	**Banbury Springs Lanx**	**Bliss Rapids Snail**	**Bruneau Hot Springsnail**	**Snake River Physa**	**Goose Creek Milkvetch**	**MacFarlane's Four-O'Clock**	**Packard's Milkvetch**	**Spalding's Catchfly**	**Ute Ladies'-Tresses**	**Water Howellia**	**Whitebark Pine**
	Rana luteiventris	*Centrocercus urophasianus*	*Coccyzus americanus*	*Lynx canadensis*	*Ursus arctos horribilis*	*Spermophilus brunneus brunneus*	*Rangifer tarandus caribou*	*Spermophilus brunneus endemicus*	*Gulo gulo luscus*	*Salvelinus confluentus*	*Acipenser transmontanus*	*Lanx sp.*	*Taylorconcha serpenticola*	*Pyrgulopsis bruneauensis*	*Haitia (Physa) natricina*	*Astragalus anserinus*	*Mirabilis macfarlanei*	*Astragalus cusickii var. parkardiae*	*Silene spaldingii*	*Spiranthes diluvialis*	*Howellia aquatilis*	*Pinus albicaulis*
Gooding		C							C			E	T		E							
Idaho			C	T					C	T-DCH							T		T			C
Jefferson		C	C	T					C											T		
Jerome		C											T		E							
Kootenai			C	T					C	T-DCH									T		T	
Latah			C	T					C										T		T	
Lemhi		C	C	T					C	T-DCH												
Lewis			C						C	T-DCH									T			
Lincoln		C							C													
Madison		C	C	T					C											T		
Minidoka		C	C												E							
Nez Perce				T					C	T-DCH									T			
Oneida		C																				
Owyhee	C	C	C							T-DCH				E	E							
Payette		C						C		T					E			C				
Power		C																				
Shoshone				T					C	T-DCH									T		T	C
Teton				T	T				C													C
Twin Falls	C	C	C						C				T		E							
Valley				T		T			C	T-DCH												C
Washington		C				T		C	C	T-DCH					E							C

Table Key: C = Candidate Species P= Proposed Species T=Threatened Species E=Endangered Species PCH= Proposed Critical Habitat DCH=Designated Critical Habitat

APPENDIX B

Section 106 Consultation Letter to the Idaho State Historic Preservation Officer – December 21, 2012

DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
201 NORTH THIRD AVENUE
WALLA WALLA WA 99362-1876

REPLY TO
ATTENTION OF:

December 21, 2012

Planning, Programs, and Project
Management Division

Mr. Travis Pitkin, Archaeologist
Idaho State Historic Preservation Office
210 Main Street
Boise, Idaho 83702

Dear Mr. Pitkin:

Please find enclosed the summary Cultural Resource Compliance Section 106 Clearance for the Proposed Repairs of the Heise-Roberts Levee. The report contains the determination that the proposed repair of three small sections of the historic levee will result in 'no adverse effect to the historic property'.

Please review this finding and advise whether you agree. If you have any questions contact Mr. Scott Hall at 509-527-7278, or Scott.M.Hall@usace.army.mil or me at 509-527-7288, or Alice.K.Roberts@usace.army.mil).

Sincerely,

for Alice K. Roberts
Chief, Tribal Relations and Cultural Resources

Enclosure