U.S. Department of Homeland Security
Region X
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FEMA

FINDING OF NO SIGNIFICANT IMPACT

Deer Creek Road Bridge Bank Protection Project
Blaine County
FEMA-PDMC-PJ-10-ID-2010-009

Blaine County applied for fiscal year 2010 funding under the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) Pre-Disaster Mitigation-Competitive (PDM-C) grant program for a bridge/bank protection project in central Idaho. The grant program is administered by FEMA to fund pre-disaster mitigation planning and projects that primarily address natural hazards. The mitigation project includes bank protection along the Big Wood River near the Deer Creek Road Bridge.

The Proposed Action would stabilize about 340 feet of the west bank of the Big Wood River by armoring it with a 4-foot thick rock revetment. Approximately 1,500 cubic yards of rock fill would be placed below the ordinary high water mark (OHWM) along the Big Wood River and approximately 300 cubic yards of associated bank excavation is proposed. The rock revetment includes two contiguous segments: the upstream portion (240 linear feet), and the downstream portion (100 linear feet). The project is designed to provide erosion protection up to a 25-year flood event and would require limited maintenance to repair displaced rock fill approximately every 5 to 10 years. Work would be performed by County employees and private contractors.

In accordance with the National Environmental Policy Act (NEPA) of 1969 and FEMA's implementing regulations, FEMA prepared a Draft Environmental Assessment (EA) to identify and evaluate potential environmental effects resulting from the alternatives presented in the EA and to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI). Alternatives evaluated in the EA include: 1) No Action, and 2) the Proposed Action to stabilize the bank. Other alternatives were considered but not carried forth and are described in the EA. The Draft EA was made available for public review and comment on March 16, 2011; no substantive comments were received. The Proposed Action is the preferred alternative because the No Action alternative would not address the purpose and need stated in the Draft EA and there are no other practical alternatives. Thus, the proposed action is selected.

FINDINGS

Based upon the PDM grant application, preliminary site design, Final EA, and Attachment A and in accordance with 1) FEMA's regulations in 44 CFR Part 10 for environmental consideration, including Executive Orders (EOs) addressing floodplains (EO 11988), wetlands (EO 11990), and environmental justice (EO 12898); and 2) the Council of Environmental Quality's regulations in 40 CFR Chapter 5 for implementing NEPA, FEMA determined the proposed project will not significantly affect the quality of the natural and human environment. As a result of this FONSI, an EIS will not be prepared (44 CFR Part 10.8) and the project, as described in the grant application and attached EA, may proceed.

APPROVAL

4-18-11

Mark G. Eberlein
Regional Environmental Officer
FEMA Region 10

Date

ATTACHMENT A

PERMITTING, PROJECT CONDITIONS, AND MITIGATION MEASURES

The County will be required to comply with the following project conditions and mitigation measures, as part of the grant award:

- The County shall obtain all required local, State, and Federal permits and approvals prior to implementing the Proposed Action Alternative and comply with all conditions imposed. These include, but are not limited to, the following:
    - Blaine County Floodplain Ordinance permitting per the requirements of the National Flood Insurance Program (including a FEMA No-rise Certification for Floodways). The No-rise Certification requires an engineering analysis be performed by a registered professional engineer.
    - A Stream Alteration Plan, to be approved by Blaine County and the IDFG.
    - Permits from the IDEQ and IDWR for in-water work.
    - A Nationwide Permit 13 for bank stabilization from the USACE.
- The County is responsible for selecting, implementing, monitoring, and maintaining BMPs to control erosion and sediment, reduce spills and pollution, and provide habitat protection. Specific BMPs for dewatering include the following:
    - A State of Idaho-qualified fisheries biologist shall be on site during dewatering procedures to electro-shock and transplant fish to the flowing portion of the Big Wood River as needed,
    - Discharge of pumped sump water shall be routed into a temporary above-ground settling tank (Baker Tank or similar structure) and treated with a sand filter, as necessary to achieve less than 5 nepholometric turbidity units below the background level, before release into the river. Any groundwater can be pumped directly downstream to the Big Wood River, assuming that it is low in turbidity.
- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other laws and Executive Orders.
- In the event that potentially significant cultural resources are discovered during project activities, and in compliance with State and Federal laws protecting cultural resources, including Section 106 of the NHPA, work in the immediate vicinity shall cease, the area secured, and the SHPO and FEMA notified.

- In the unlikely event that a Canada lynx is observed during project activities, work in the immediate vicinity shall be discontinued and the IDFG and USFWS notified.
- Vegetation removal should. occur in late summer and early fall, outside of the typical migratory bird nesting season, which ranges from March through August. If clearance activities must take place during the nesting season, a breeding bird survey shall be conducted by a qualified professional before removal activities to avoid or minimize harm.
- Construction shall occur during the low water season. However, if construction is required during the flood season, as determined by the local floodplain administrator, all construction equipment shall be staged in an area not susceptible to flood waters or be readily transportable out of the floodplain to avoid any flood damage.

Final Environmental Assessment

Deer Creek Road Bridge Bank Protection Project

Blaine County Idaho

PDMC-PJ-10-ID-2010-009

April 18, 2011

FEMA

Federal Emergency Management Agency
Department of Homeland Security
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LIST OF ACRONYMS

APE	Area of Potential Effects
BMPs	Best Management Practices
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
cfs	cubic feet per second
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
GLO	General Land Office
ICDC	Idaho Conservation Data Center
IDEQ	Idaho Department of Environmental Quality
IDFG	Idaho Department of Fish and Game
IDWR	Idaho Department of Water Resources
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OHWM	ordinary high water mark
PDM-C	Pre-Disaster Mitigation–Competitive
SHPO	State Historic Preservation Office
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

LIST OF TERMS

Alluvium – rock debris that has been eroded into fine sediments subsequently transported by a stream.

Area of Potential Effects – the geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if such properties exist. The Area of Potential Effects is influenced by the scale and nature of the undertaking.

Best Management Practices (BMPs) – environmental protective measures for conducting projects in an environmentally responsible manner.

Braided river – a high-energy river system with steep gradients and a high volume of sediment transport, where lateral channel changes are common.

Ordinary high water mark (OHWM) – the point on a bank or shore up to which the presence and action of the water leaves a distinct mark either by erosion, destruction of terrestrial vegetation, or other easily recognized characteristic.

Riverwash – stratified sand and gravel sediments associated with floodplains.

SECTION ONE INTRODUCTION

Blaine County applied for fiscal year 2010 funding under the Federal Emergency Management Agency (FEMA) Pre-Disaster Mitigation–Competitive (PDM-C) grant program for a bridge/bank protection project in central Idaho. The grant program is administered by FEMA to fund pre-disaster mitigation planning and projects that primarily address natural hazards. The mitigation project includes bank protection along the Big Wood River near the Deer Creek Road Bridge (Appendix A, Figure 1).

The Environmental Assessment (EA) was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the President's Council on Environmental Quality (CEQ) regulations to implement NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and FEMA's regulations implementing NEPA (44 CFR Part 10). FEMA is required to consider potential environmental impacts before funding or approving actions and projects. The purpose of the EA was to analyze the potential environmental impacts of the Deer Creek Road Bridge/Bank Protection Project. FEMA used the findings in the EA to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI). Much of the information about the project in the EA came from a site visit in November 2010 and the PDM-C grant application package. Concurrence from the State Historic Preservation Office (SHPO) was received on March 4, 2011. The public comment period for the draft EA was open from March 16, 2011 through April 15, 2011. No comments from the public were received.

SECTION TWO PURPOSE AND NEED

The objective of the PDM-C grant program is to fund pre-disaster mitigation planning and projects to eligible States, Territories, and federally recognized Tribal governments. The grant program is administered by FEMA to fund pre-disaster mitigation planning and projects that primarily address natural hazards. Funding these plans and projects reduces overall risks to vulnerable populations and structures, while also reducing reliance on recovery funding from actual disaster declarations.

The purpose of the proposed project is to reduce vulnerabilities to the Deer Creek Road Bridge from flood hazards, and bank erosion in particular. This action is needed because closure or failure of the bridge as a result of flood damage would isolate 10 residences and recreationalists of the Sawtooth National Forest.

The Deer Creek Road Bridge is located approximately 3 miles north of the City of Hailey in Blaine County, Idaho, spanning the Big Wood River, a braided river (Appendix A, Figure 1). This bridge provides the only method of access across the Big Wood River to 10 residences, and is also a major access route into the nearby Sawtooth National Forest.

A FEMA Flood Insurance Study in 1980 determined that the river channel in this relatively flat, wide valley is capable of shifting 200 to 300 feet laterally during a single flood event. An upstream shift of this magnitude would destroy the west bridge abutment, bridge footings, and 150 to 200 feet of the road. The bridge, which is in the 100-year floodplain and the floodway, is subject to inundation when flooding exceeds the 10-year flood event. According to the Blaine County Multi-Jurisdiction All Hazard Mitigation Plan, the Big Wood River has had 23 recorded flood events since 1917, with a flood return interval of approximately 4.5 years (Blaine County 2009).

During severe floods in May 2006, scouring of the east bank caused the river channel to flow directly into (instead of along) the unprotected section of the west bank. The Big Wood River eroded approximately 100 feet into the bank, nearly causing failure of the west bridge abutment and footings (Appendix A, Figure 2). The road and bridge were closed for 3 days after the flood, displacing approximately 30 residents and blocking recreational traffic. Now, the river flows directly into the unprotected bank of alluvium, increasing the risk of bridge failure. Portions immediately upstream and downstream along the west bank were previously stabilized by the

U.S. Army Corps of Engineers (USACE) and Blaine County in 2000 and 2006, but there is a 340-foot section that is currently unprotected.

SECTION THREE ALTERNATIVES

This section discusses the No Action Alternative, the Proposed Action, to which FEMA funding would contribute, and other alternatives that were considered and dismissed.

3.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, FEMA would not provide funding to reduce flood hazards by preventing further scour and erosion of the bank upstream of Deer Creek Road Bridge. The bridge and affected portion of Deer Creek Road would continue to be at risk from flooding and associated bank erosion, and eventually the bridge may need to be replaced. If the Deer Creek Road Bridge closed or failed due to flooding, individuals from the 10 residences on the western side of the Big Wood River and recreationalists of the Sawtooth National Forest would be isolated, as there is currently no other route of egress.

3.2 PROPOSED ACTION

The Proposed Action would stabilize about 340 feet of the west bank of the Big Wood River by armoring it with a rock revetment (Appendix A, Figures 3 and 4). A total of about 1,500 cubic yards of fill would be placed below the ordinary high water mark (OHWM) and within the Big Wood River for the project. A total of approximately 300 cubic yards of excavation is proposed. Work would be performed by County employees and private contractors. The project is designed to provide erosion protection up to a 25-year flood event and would require limited maintenance to repair displaced rock fill approximately every 5 to 10 years.

A 4-foot thick rock revetment consisting of approximately 1,500 cubic yards of rock fill would be installed between two existing rock revetment areas, extending 1 foot above the 25-year flood surface elevation. The rock revetment includes two contiguous segments: the upstream portion (240 linear feet), and the downstream portion (100 linear feet) (Appendix A, Figure 4).

Upstream portion. Construction of the upstream 240 feet of bank protection includes burying the rock below the streambed/gravel bar and extending the toe approximately 6 to 8 feet waterward of the existing bank toe. This section would be constructed during the dry flow period below the OHWM of the Big Wood River. There are numerous local sources of rock nearby, and the rock fill would be granite, andesite, argillite, or dense basalt. The choice of rock would be up to the Blaine County Road and Bridge Department and/or the private contractor.

Downstream portion. The downstream 100 feet of bank protection would require approximately 300 cubic yards of excavation, and temporary diversion and pumping for in-water work. For dewatering the work area, a bypass system consisting of an approximately 1-foot deep by 5-foot wide diversion channel about 100 feet in length would be installed either between sand bags or a water bladder. Sump pumps would be used to remove surface water. Screens would be installed at the sump pump inlets to prevent the entrainment of small fish. To avoid stranding and loss of fish, any fish would be removed by a State of Idaho-qualified fisheries biologist and transferred to the Big Wood River before the river channel is completely dewatered. Dewatering would last between 1 to 3 days.

Design features. Throughout the project area, native streambed gravel that is removed during dewatering and excavation would be placed on top of the rock toe to provide similar fish habitat to what is currently there. Approximately 30 logs with root wads would be installed in the rock

revetment area to provide additional stabilization and wildlife habitat. This work would occur below the OHWM.

Access and staging. Access to the project area would be via the existing dirt road that was used during a USACE project in 1997. This road area (approximately 0.5 acre) would be cleared and grubbed of existing brush. After streambank protection is complete, the access road would be removed and replanted with native vegetation, including willow cuttings. The staging area would be located adjacent to the project area on a flat terrace and would be accessed via the existing dirt road.

3.3 ALTERNATIVES CONSIDERED AND DISMISSED

The County considered replacing the bridge with a repositioned, wider-span structure. At a cost of over $1 million, this alternative was dismissed as being cost-prohibitive.

SECTION FOUR AFFECTED ENVIRONMENT AND POTENTIAL IMPACTS

This section discusses the affected environment by resource, and the potential effects of the No Action Alternative and the Proposed Action.

For each resource category, the impact analysis follows the same general approach. When possible, quantitative information is provided to establish impacts. Qualitatively, these impacts will be measured based on the criteria below.

Impact Scale	Criteria
None/Negligible	The resource area would not be affected, or changes would be either non-detectableor if detected, would have effects that would be slight and local. Impacts would be well below regulatory standards, as applicable.
Minor	Changes to the resource would be measurable, although the changes would be smalland localized. Impacts would be within or below regulatory standards, as applicable. Mitigation measures would reduce any potential adverse effects.
Moderate	Changes to the resource would be measurable and have both localized and regional scale impacts. Impacts would be within or below regulatory standards, but historicalconditions are being altered on a short-term basis. Mitigation measures would be necessary and the measures would reduce any potential adverse effects.
Major	Changes would be readily measurable and would have substantial consequences ona local and regional level. Impacts would exceed regulatory standards. Mitigation measures to offset the adverse effects would be required to reduce impacts, though long-term changes to the resource would be expected.

Impacts are predicted based on the degree of change or loss of the resource from the baseline conditions. Impacts may be direct or indirect. Direct impacts are caused by an action and occur at the same time and place as the action. Indirect impacts are caused by the action and occur later in time or are farther removed from the area, but are still reasonably foreseeable (40 CFR Part 1508). Cumulative impacts are discussed in Section 4.6.

4.1 PHYSICAL RESOURCES

4.1.1 Geology and Soils

Geology in northern Blaine County is very mixed, with both sedimentary and volcanic features. The Pioneer Mountains east of the project area, which were uplifted during the Eocene (56 to 34 million years ago) and Oligocene (34 million to 23 million years ago), contain a core of gneiss overlain by younger Proterozoic and Paleozoic metamorphic rocks. The upper plate of the detachment fault forms the bulk of the Pioneer Mountains and contains dark colored sandstone. The Smoky Mountains, west of the Big Wood River, contain Paleozoic sedimentary rock of the Sun Valley group, intruded by the Cretaceous Idaho batholiths and Eocene Challis granites. Lava flows from the Challis volcanic make up much of the Smoky Mountains west of Hailey and northwest of Ketchum. The Boulder Mountains, located further west of the Smoky Mountains, have Eocene pink granite at the base overlain by sedimentary rocks and lava, and were uplifted on a west-dipping normal fault from Galena Summit to the Sawtooth National Recreation Area (Blaine County 2009).

Soils in the project area are predominantly riverwash, which is stratified sand and gravel sediments associated with floodplains (USDA 2010). This type of soil is vulnerable to accelerated erosion caused by disturbance during flooding.

The Farmland Protection Policy Act (7 U.S.C. 4201 et seq.) requires Federal agencies to minimize the extent to which their programs contribute to the unnecessary conversion of prime farmland, unique farmland, and land of statewide or local importance to non-agricultural uses. There are no prime and unique farmlands designated in the project area (USDA 2010).

4.1.2 Climate Change

The CEQ has recently released guidance on how Federal agencies should consider climate change in their action decision-making. The suggested threshold whereby quantitative analysis should be done in NEPA documents is for an action to release over 25,000 metric tons of greenhouse gases per year (CEQ 2010). Given the nature and small scale of the Proposed Action, and its lack of greenhouse gas releases, no detailed analysis was completed because it would not meet the above threshold, so climate change will not be addressed further therein.

4.1.3 Consequences of Alternatives

No Action Alternative

Under the No Action Alternative, FEMA would not provide funding to stabilize the river bank upstream of the Deer Creek Road Bridge. Previous upstream bank armoring projects have modified natural fluvial geomorphologic processes, including channel migration. The effects of such modifications to geology and geomorphology would continue. Given the nature of the problem, localized bank erosion, the No Action Alternative is not expected to affect climate conditions. Erosion due to flooding would continue in the project area. Adverse impacts are anticipated to be minor.

Proposed Action

There would be minor adverse impacts to soils in the project area due to ground disturbance, use of heavy equipment, and vegetation removal during construction. Replanting vegetation within the rock revetment would help anchor the underlying soil. Direct and indirect effects to soil productivity, stability, and infiltration capacity would be negligible. Adherence to Best Management Practices (BMPs) and applicable permit conditions from Blaine County, the Idaho Department of Environmental Quality (IDEQ), the Idaho Department of Water Resources (IDWR), and USACE would be followed during construction, including installation of temporary erosion and sediment control measures such as sediment curtains; would minimize potential adverse effects from soil erosion. There would be no impacts to prime and unique farmlands, as there are none in the project area.

The Big Wood River is a braided, high-energy river capable of lateral channel changes (Appendix A, Figure 4). Minor adverse impacts to natural fluvial geomorphologic processes, including migration, would continue due to further channel migration constraints from bank armoring.

4.2 WATER RESOURCES

4.2.1 Surface Water

The Wood River Basin has a drainage area of over 2,990 square miles. Major drainages in the Wood River system are the Big Wood and Little Wood Rivers. Flows from the Wood River drainage are controlled for irrigation and flood control by four major reservoirs: Magic (approximately 25 miles south of the project area), Little Wood River (approximately 17 miles southeast), Fish Creek (approximately 30 miles southeast), and Mormon (approximately 40 miles southwest) (Harvey 1999). The project area is located in Segment 3 of the Mainstem Big Wood River, roughly in the middle of the Wood River Basin.

The river is shallow, braided, and approximately 110 feet wide at the project area (braided rivers are high-energy systems with steep gradients and a high volume of sediment transport, where lateral channel changes are common). Portions of the banks along this stretch of the Big Wood River have been previously armored with levees and rock bank protection. Streamflow is described in Section 4.2.4 Floodplains.

4.2.2 Water Quality

Section 303(d) of the Clean Water Act establishes requirements for States and Tribes to identify and prioritize water bodies that do not meet water quality standards. Segment 3 of the Big Wood River is classified as a 303(d) listed stream for the following characteristics: temperature, excess nutrients, excess sediments, flow alterations, and habitat index not meeting beneficial uses. The associated pollutants are nitrate, nitrite, and total phosphorus (IDEQ 2001).

4.2.3 Wetlands

Executive Order (EO) 11990, Protection of Wetlands, requires Federal agencies, in planning their actions, to consider alternatives to conducting activities in wetlands and limit potential damage if an activity affecting a wetland cannot be avoided.

The National Wetland Inventory does not show any wetlands in the project area, but does note that the Big Wood River is a non-wetland riverine habitat (USFWS 2010). These features are regulated as Waters of the United States. A field visit by a biologist in November 2010 confirmed that the project area is characterized by steep slopes with small benches that do not support wetlands in the project area above the OHWM of the Big Wood River. No wetlands are present in the proposed access and staging areas.

4.2.4 Floodplains

EO 11988 requires Federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. Furthermore, Blaine County regulates its floodplain and floodway through its National Flood Insurance Program (NFIP) floodplain ordinance.

According to the Flood Insurance Rate Map for the project area, Panels 16013C0661E and 16013C0662E, effective 2010, the project area is in Zone AE, an area within the 100-year floodplain and the floodway (Appendix A, Figures 5a and 5b). The base flood elevation is approximately 5,418 cubic feet per second (cfs) in the project area. As noted above, portions of the natural floodplain and banks along this stretch of the Big Wood River have been previously

armored. Levees were located along the west bank of the river, stretching at least 800 feet north of the bridge; however these were damaged and later destroyed due to floods in 1982.

The National Weather Service-recognized flood level for the Big Wood River in the Hailey area is 3,500 cfs (Blaine County 2009). The flood return interval is approximately every 4.5 years since 1917. The annual streamflow for the past 20 years at the Hailey, Idaho station (the closest station to the project area, 3 miles south) ranges from a low of 839 cfs in 1992 to a high of 7,800 cfs in 2006. In the past 20 years, peak streamflow amounts have exceeded the recognized flood level of 3,500 cfs six times (USGS 2009).

During the flood of 2006, floodwaters nearly caused failure of the west bridge abutment and footings (Appendix A, Figure 2). The road and bridge were closed for 3 days after the flood, displacing approximately 30 residents and blocking recreational traffic. This flood was considered a 320-year flood event.

4.2.5 Consequences of Alternatives

No Action Alternative

Under the No Action Alternative, FEMA would not provide funding to reduce flood-related erosion near the bridge. Localized changes to the Big Wood River's channel alignment and its floodplains would range from minor to major, depending on the severity of a flood event and subsequent bank erosion. Continued incremental bank erosion could damage and close the bridge, limiting access for residents and recreationalists. No impacts on wetlands would occur as there are none in the project area and there would be no change in existing water quality conditions as a result of no action.

Proposed Action

Short-term adverse water quality impacts from sedimentation during construction would be minor, as implementing BMPs per permit conditions, such as silt fencing and other erosion and sediment control devices, would minimize release of sediments into the Big Wood River. The project would require permits and approvals from Blaine County, IDEQ, the Idaho Department of Fish and Game (IDFG), IDWR, and USACE. Refueling and staging areas for construction equipment would be located approximately 50 feet west of the river on the flat terrace that was previously used as a staging area by the USACE.

The County is required to ensure no net increase in the base flood elevation as a result of placing fill in the floodway, as part of its floodplain permitting. This would be accomplished through project design, by excavating the bank so that rock placement does not decrease the base flow area. Native trees and vegetation would be planted along the bank to provide greater long-term stability and reduce sedimentation from flood-related erosion. Long-term adverse impacts to surface water and floodplains would be minor to negligible, so long as the County complies with the No-Rise provisions, a required project condition, as described in Section Six of this EA.

4.3 BIOLOGICAL RESOURCES

4.3.1 Vegetation

The banks of the Big Wood River in the project area are characterized by a mature, broad-leaved deciduous forest, dominated by large (between 4 to 8 inches in diameter at breast height) black cottonwoods (*Populus balsamifera ssp. trichocarpa*). These trees form a contiguous concave band approximately 50 to 65 feet wide along the approximately 10-foot-tall terrace above the river (Appendix A, Figure 3). The sparse understory includes shrubs such as red-osier dogwood (*Cornus sericea*), Pacific willow (*Salix lucida ssp. lasiandra*), and common chokecherry (*Prunus virginiana*), with western white clematis (*Clematis ligusticifolia*) commonly twining up the trees and shrubs. The understory is dominated by moderate amounts of blue wildrye (*Elymus glaucus*) and sparse amounts of other herbaceous species, including noxious weeds such as spotted knapweed (*Centaurea stoebe*), Canada thistle (*Cirsium arvense*), and oxeye daisy (*Leucanthemum vulgare*).

An old road bed adjacent to the black cottonwood stand would be used to access the project area. This road was also used to access the river during the previous USACE bank protection project. The road bed is dominated by non-native grasses such as smooth brome (*Bromus inermis*) and Kentucky bluegrass (*Poa pratensis*) with quackgrass (*Elymus repens*) and small amounts of cheatgrass (*Bromus tectorum*). Scattered noxious weeds are present throughout the area, including spotted knapweed, Canada thistle, and oxeye daisy. Prickly lettuce (*Lactuca serriola*) and common mullein (*Verbascum thapsus*), invasive non-native plants, are also common.

South of the project area (near the Deer Creek Road Bridge) is a flat terrace that would be used as a staging area for the proposed project. This flat terrace was also used as the staging area for the USACE bank protection project. This area is dominated by intermediate wheatgrass (*Thinopyrum intermedium*) with scattered Kentucky bluegrass, crested wheatgrass (*Agropyron cristatum*), orchardgrass (*Dactylis glomerata*), white sweet clover (*Melilotus albus*), common yellow sweet-clover (*Melilotus officinalis*), spotted knapweed, Canadian horseweed (*Conyza canadensis*), and prickly lettuce.

4.3.2 Wildlife and Fish

The Migratory Bird Treaty Act of 1918, as amended, provides Federal protections for migratory birds, their nests, eggs, and body parts from harm, sale, or other injurious actions. The act includes a “no take” provision. The U.S. Fish and Wildlife Service (USFWS) Office of Migratory Bird Management maintains a list of migratory birds (50 CFR 10.13). The project area is in the Pacific Flyway and provides habitat for a variety of migratory birds, including songbirds and birds of prey. Migratory birds likely use this stretch of the river and may perch and nest in the cottonwood trees and shrubs that grow along the bank.

The Wood River Basin drainage area, including the Big Wood River, contains the most productive trout streams, lake, and reservoir habitat in south central Idaho (IDFG 2007). Rainbow trout (*Oncorhynchus mykiss*) are the most important and numerous game fish species, but high populations of introduced brown trout (*Salmo trutta*) and brook trout (*Salvelinus fontinalis*) also occur. Non-game fish include the Wood River bridgelip sucker (*Catostomus columbianus hubbsf*), mountain whitefish (*Prosopium williamsoni*), and the mottled sculpin (*Cottus bairdii*) (IDFG 2007).

4.3.3 Threatened and Endangered Species and Critical Habitat

The Endangered Species Act (ESA) established a program to conserve, protect, and restore threatened and endangered species and their habitats. Section 7 of the ESA (50 CFR 401) requires Federal agencies ensure their actions do not jeopardize the continued existence of listed species and do not result in adverse modification to designated critical habitat.

Data from the Idaho Conservation Data Center (ICDC) was requested for known special-status species at and near the project site (ICDC 2010). The IDFG and USFWS were consulted for potential ESA listed species in Blaine County (IDFG 2010, USFWS 2011).

According to the USFWS, there are five federally listed ESA species within Blaine County. They are the Canada lynx (*Lynx canadensis*) – threatened; bull trout (*Salvelinus confluentus*) – threatened; sockeye salmon (*Oncorhynchus nerka*) – endangered; spring/summer Chinook salmon (*Oncorhynchus tshawytscha*) – threatened; and steelhead (*Oncorhynchus mykiss*) – threatened. Designated and proposed critical habitat is also present in Blaine County for sockeye salmon, spring/summer Chinook salmon, and steelhead. There is suitable habitat in the project area for sockeye salmon, spring/summer Chinook salmon, and steelhead. However, information gathered from the USFWS and IDFG indicate there are no listed anadromous fish near the project area in the Big Wood River due to fish passage blockages on the Snake River downstream of the confluence of the Big Wood River. Data from the ICDC also has no recent records of ESA-listed anadromous fish in this reach of the Big Wood River.

In Idaho, the Canada lynx inhabits montane and subalpine coniferous forests typically above 4,000 feet. Habitat used during foraging is usually early successional forest. Dens are usually in mature forests. Individuals are wide-ranging and require large tracts of forest. The Canada lynx preys on the snowshoe hare, particularly during the winter, as well as a variety of birds and other small mammals (IDFG 2005). Since the project area does not contain coniferous forests, there is a low likelihood of Canada lynx in the area. Data from the ICDC also has no records of Canada lynx in the project area. Canada lynx are unlikely to be present in the immediate project area because it is not located within preferred habitat.

4.3.4 Special Status Species

The yellow-billed cuckoo (*Coccyzus americanus*) is listed in this county as a candidate species under the ESA. Candidate species are actively being considered for listing as endangered or threatened under the ESA. Candidate species are afforded no protection under the ESA. The yellow-billed cuckoo is a riparian-obligate species requiring large tracts of willow and cottonwoods. While there are a few black cottonwoods in the project area, the patch is not very large or contiguous with other forested riparian areas. The ICDC also has no records of yellow-billed cuckoo in the project area.

The ICDC identifies one rare fish species in the portion of the Big Wood River in the project area: the Wood River sculpin (*Cottus leiopomus*). The Wood River sculpin is a protected non-game species currently listed by the Bureau of Land Management and Region 4 of the U.S. Forest Service as a State of Idaho species of special concern and as a sensitive species. It is considered a species of special concern because of its restricted distribution. Any land management practices that degrade aquatic habitat and water quality are threats to this species.

Wood River sculpin are endemic to the Wood River Basin and to the upper Little Wood River and tributaries, and the Big Wood River and tributaries upstream from Magic Reservoir in Blaine County. They occur mainly in small- to medium-sized streams with a swift current and cool, clear waters (such as the stretch of river adjacent to the project area). Individuals are most commonly found in riffles and runs with a gravel or cobble substrate.

4.3.5 Consequences of Alternatives

No Action Alternative

Under the No Action Alternative, FEMA would not provide funding to reduce flood-related erosion to the bridge. Vegetation would likely be removed by erosion and flooding. Some wildlife habitat could also be removed if riparian vegetation is washed away. Any adverse impacts to vegetation and wildlife resources, including protected species, are anticipated to be minor.

Proposed Action

Approximately 0.5 acre of land would be cleared and grubbed of shrubs for staging and project access. The proposed access and staging areas have previously been disturbed and are dominated by non-native species. No trees would be removed. Vegetative plantings, including native trees and shrubs, would be incorporated into the proposed rock revetment. These native plantings would result in a permanent, long-term net gain of native and riparian buffer vegetation. Enhancing the riparian buffer with plantings would locally improve the wildlife habitat along the banks of the river in the long-tern.

Vegetation and Wildlife and Fish. Adverse impacts on vegetation and wildlife from the Proposed Action would be negligible. Birds may be directly effected by vegetation removal in a variety of ways. Young birds not yet able to fly or eggs in nests may be killed or destroyed by fallen trees. Most adult birds will be able to fly out the way of direct harm by falling trees or branches. However, disturbance to adult birds in the vicinity of their nests as a result of noise may have subsequent impacts to their young. Impacts to non-listed wildlife, including migratory birds, would be negligible because the area of habitat modification/vegetation removal is small (0.5 acre) and proposed site work would occur in late summer/early fall, after most birds have finished nesting. New habitats for non-listed wildlife and migratory birds would be created in the project area by replanting native vegetation, particularly along the old road bed. An increase in the amount of riparian vegetation would have a beneficial effect for wildlife which occur there.

Generally, streams with healthy riparian vegetation communities may be harmed ecologically from the addition of riprap or armoring structures. However, systems with excessive erosion and habitat alteration, like this stretch of the Big Wood River, are more likely to benefit ecologically from bank armoring (USACE 2003). Stabilizing stream channels with riprap can reduce sediment loads, improve water quality, and allow reestablishment of riparian vegetation (USACE 2003).

Short-term, minor adverse impacts on fish, including the Wood River sculpin, are possible because the project would entail dewatering. Permits from the IDWR and the USACE would be required for in-water work, and conditions listed in these permits would be followed to minimize impacts. These permits typically specify a work window to avoid spawning and mating season, which usually occurs in the springtime. In-water activities would take between approximately 1 to 3 days to complete. A State of Idaho-qualified fisheries biologist would be on site during

dewatering procedures to electro-shock and transplant fish to the flowing portion of the Big Wood River as needed.

Threatened and Endangered Species. No impacts to threatened or endangered species are anticipated as a result of project activities. Listed fish occur downstream of known fish barriers, and sediments are not expected to travel far during the dry season construction period. The one listed mammal, Canada lynx, is extremely unlikely to occur in the project area due to lack of its preferred habitat.

4.4 CULTURAL RESOURCES

Cultural resources consist of locations of human activity, occupation, or use identified through field inventory, historic documentation, or oral evidence. The term encompasses historic properties as defined by the National Register of Historic Places (NRHP), including archaeological and architectural properties as well as sites or places of traditional cultural or religious importance to Native American Tribes or other social or cultural groups. Section 106 of the National Historic Preservation Act (NHPA) of 1966 requires that activities needing Federal permits or using Federal funds, undergo a review process to consider historic properties that are listed in or may be eligible for listing in the NRHP. The State Historic Preservation Office (SHPO) is the Federal agency's primary Section 106 partner. Because Section 106 is a process by which the Federal government assesses the effects of its undertakings on historic properties, it is the primary regulatory framework used in the NEPA process to determine impacts on cultural resources.

The Proposed Action would take place in an undeveloped, rural setting. In accordance with Section 106, FEMA has delineated the Area of Potential Effects (APE) for archaeological resources for the Proposed Action which consists of contiguous linear segments totaling approximately 340 feet, described in Section Three, Proposed Action. All proposed improvement activities would occur within this APE. The APE for above-ground resources for the Proposed Action is an expanded 0.1-mile radius from the APE for archaeological resources (Appendix A, Figure 6).

4.4.1 Prehistoric, Ethnographic, and Historic Context

Lithic scatters and associated lithic artifacts are the most common types of prehistoric site in the region. Lithic debitage, or processed stone flakes, represent activity areas. These sites can also contain stone tools, projectile points, or solely lithic debitage waste flakes produced during the manufacture or maintenance of stone tools. The evidence left behind in the archaeological context is indicative of specific types of activities or sites. Examples include short-term hunting camps; butchering sites; and tool quarry, manufacturing, or repair locations. Other site types can include a variety of habitation or campsites, fishing locations, hunting blinds, rock alignments, cairns, ceremonial and rock art sites, and burials. As both the ethnographic and the archaeological record of the region conclude, although dependent on environmental variability, prehistoric lifeways saw a relatively high resource abundance of fish, vegetative plants, and game for subsistence (Plew 2008; Steward 1938).

Prior to Euro-American settlement of the Wood River Valley, the Northern Shoshone and Bannock occupied the region (Liljeblad 1960; Madsen 1996). The Tukudeka, or Sheepeaters, who were closely related to the Lemhi Shoshone, resided in the high mountain valleys of the Salmon River country (ISHS 1978). "Indian Creek," which is a small drainage about 1.5 miles to the west of the project area, was reportedly a favored campsite (Hailey 1981). However, most

ethnographically reported permanent villages were located along the Snake River in the Fort Hall vicinity (Murphy and Murphy 1986; Steward 1938), approximately 100 miles southeast from the project area. The Wood River Valley appears to have been used as a principal travel corridor, and short-term occupation sites were typically located along low-elevation alluvial settings. The surrounding foothill environment is more likely to contain evidence of transient activities such as hunting, plant collecting, spiritual quests, and mineral mining. The U.S. National Park Service's Native American Consultation Database lists the following Tribes as having ancestral interest in Blaine County: the Shoshone Tribe of the Wind River Reservation (Wyoming), and the Shoshone-Bannock Tribes of the Fort Hall Reservation of Idaho (USNPS 2011).

The Wood River Valley area was settled by Euro-Americans relatively late in comparison to other regions of Idaho. Although galena was first discovered here by miners as early as 1863, the absence of an easy transportation system and of smelters to process the mineral delayed settlement. But in the 1870s, prospectors began to expand into the region as talk of expansion of the railroad surfaced (Spence 1999). Findings of silver-lead minerals substantially increased settlement beginning in 1879, as miners from nearby Boise Basin mines migrated to the area.

Names of nearby geographic features and towns, such as Barite about 1 mile to the west of the project area, and Carbonate Mountain about 1 mile to the south of the project area, are relics of the ore-extraction industry.

By the 1890s, sheep and cattle grazing emerged as the main industry in the valley (Link and Phoenix 1994). As mining declined, a number of towns continued to prosper, including Hailey, which continued as the county seat and as a center for mining, farming, stock raising, and lumbering activities. It became a shipping point for wheat, oats, barley, alfalfa, clover, and hay, and was a major supply point for stockmen of the Sawtooth National Forest area. Eventually, the region became a recreation center, particularly after the Sun Valley resort was completed in 1936 (Spence 1999).

General Land Office (GLO) maps were reviewed to determine if any late-nineteenth century historic features are present in the project area (BLM 2010). The 1883 GLO plat depicts Deer Creek Road and a bridge spanning Big Wood River near the project area approximately 0.10 mile to the south of the existing Deer Creek Road Bridge. A network of wagon roads converging along the Big Wood River is depicted, indicating that this area was an important travel corridor. Land patent records show that the land within the APE was claimed in 1889 by John West, though the location of his residence has not been determined.

The project area is located along the Wood River Valley in an area of ancestral Tribal importance. Ethnographically, this area would have been used for travel, resource acquisition, and residential activities prior to Euro-American settlement and the establishment of reservations. Historic development of the region indicates that intensive nineteenth century mining and agricultural activities occurred along the Big Wood River and Deer Creek, and thus evidence for such activities may exist in the project area. Deer Creek, near the boomtown of Hailey, would have been accessed for mineral mining and agricultural activities, and was a well-established travel corridor by the late nineteenth century.

4.4.2 Identification of Historic Properties

A review of the confidential archaeological records on file at the Idaho SHPO office in Boise, Idaho, was conducted in November 2010 to determine the presence or absence of previously recorded historic properties and the extent of survey coverage in and near the APE. Based on this

review, it appears that the APE has not been previously surveyed. No previously documented historic properties were found within the APE.

Above-Ground Resources. One resource, the Deer Creek Road Bridge (Idaho SHPO number 13-5152) has been recorded in the APE for above-ground resources, but this resource no longer exists in its original location. The bridge was located just south of the Proposed Action area. Built in 1917, the Deer Creek Road Bridge replaced a timber bridge built in 1888 that was destroyed by flooding. However, the 1917 steel truss bridge was relocated to a new site approximately 5 miles north in 1982, when the existing Deer Creek Road Bridge structure was built. Because this structure is no longer located within the APE, its NRHP eligibility and effects have not been assessed.

No buildings are present in the immediate project area, as revealed through aerial imagery and historic map review. No other above-ground resources with the potential to be historic properties were identified during this desktop study.

Archaeological Resources. No previously recorded archaeological resources were found within the APE. Four archaeological resources were found between 0.5 and 1 mile from the APE: one prehistoric archaeological site (10BN202) consisting of a large unifacial core that was determined as ineligible for listing in the NRHP, the NRHP-eligible Oregon Short Line Railroad grade (10BN498), the NRHP-eligible Galena Toll Road (10BN306), and the NRHP-eligible Hiawatha Canal (10BN117). Although a variety of site types are in the vicinity, one cultural resource inventory completed for a USACE riverbank stabilization project, which was completed adjacent to the APE for archaeological resources, did not identify any cultural resources (Tracy 1998).

The U.S. Geological Survey topographic map dated 1967 depicts the location of the former Deer Creek Road alignment and historic 1917 bridge structure, since removed, as within the APE for historic archaeological properties (Appendix A, Figure 6). Based on photographs and information supplied by the subapplicant, at least a fragment of the center concrete pier related to the 1917 steel truss bridge is present in the active stream channel. The pier is adjacent to but outside of the archaeological APE. Field investigations have not been conducted to determine whether any additional remains are present.

Although an archaeological survey has not been conducted, intact, significant archaeological resources are not likely to be present in the APE because the Proposed Action would occur in an area that is inundated approximately every 5 years, and where the river channel is capable of shifting 200 to 300 feet laterally during a single flood event. This highly active setting suggests that if any evidence of historic and prehistoric activities was ever present, it has likely been disturbed.

4.4.3 Consequences of Alternatives

No Action Alternative

Under the No Action Alternative, FEMA would not provide funding to reduce flood-related erosion to the bridge. If erosion continues, the existing Deer Creek Road Bridge would eventually be undermined and require repair or replacement. Because no Federal activity would occur, Section 106 would not apply.

Proposed Action

The Proposed Action would stabilize approximately 340 feet of riverbank with a rock revetment and native plantings. There would be no direct impacts on known historic properties with implementation of the Proposed Action. Riverbank stabilization would be carried out adjacent to a modern bridge and would not introduce visual or physical effects to any known historic properties. Instead, the current erosion would be reduced by the Proposed Action, which would reduce or delay potential need for bridge repair or replacement. Adverse impacts would be negligible.

No above-ground historic properties are known to be present in the APE; therefore, FEMA has determined that the Proposed Action would have no effect on above-ground historic properties.

The project is located along the Big Wood River, an area generally considered to have high archaeological sensitivity. In addition, it is located within a floodplain setting where surface and/or deeply buried cultural resources could be present. However, there is little potential to affect archaeological historic properties within the APE of the Proposed Action because the highly active setting suggests that any archaeological resources present would have been previously disturbed. Thus, FEMA has determined a finding of No Historic Properties Affected for archaeological historic properties.

Consultation was completed with the SHPO, which concurred with FEMA's determination. To help determine if there may be historic properties of religious or cultural interest within or near the APE, the Shoshone Tribe of the Wind River Reservation (Wyoming) and the Shoshone-Bannock Tribes of the Fort Hall Reservation of Idaho were also consulted and no comments were received.

FEMA conditions all its funded ground disturbing projects to protect cultural resources during site work. In the event of an unanticipated discovery, and in compliance with State and Federal laws protecting cultural resources, including Section 106, all work is required to cease in the immediate vicinity of the find until the appropriate parties (including the SHPO) are consulted and an appropriate resolution plan is established.

4.5 SOCIOECONOMIC RESOURCES

4.5.1 Environmental Justice

EO 12898, Environmental Justice, directs Federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects on minority and low-income populations resulting from Federal programs, policies, and activities. Socioeconomic and demographic data for residents in the project vicinity were studied to determine if the Proposed Action would have disproportionate impacts on minority or low-income persons.

U.S. Census Bureau 2000 Census data for Blaine County was used to identify the minority[1] and low-income[2] compositions of the study area, which is located within Block Group 3 (within Census Tract 9601) and Block Group 2 (within Census Tract 9603). In the study area, the minority population was approximately 7 percent. The poverty rate of the study area population was approximately 6 percent (U.S. Census Bureau 2000).

4.5.2 Consequences of Alternatives

No Action Alternative

Under the No Action Alternative, FEMA would not provide funding to reduce flood-related erosion to the bridge. There are no minority or low income populations in the project area, thus no disproportionately high and adverse effects would occur.

Proposed Action

The project area was chosen as high-priority for a mitigation project based solely on the need to protect the Deer Creek Road Bridge and road; demographics was not a factor in decision-making. Furthermore, there are no minority or low-income populations in the project area.

4.6 CUMULATIVE IMPACTS

The CEQ regulations for implementing NEPA require an assessment of cumulative effects during the decision-making process for Federal projects. Cumulative effects are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative effects were determined by combining the effects of these alternatives with other past, present, and reasonably foreseeable future actions.

Blaine County has completed several similar bridge related projects along the Big Wood River and will likely have more in the future. In December 2010, the County applied for a bridge related project permit at Adams Gulch Bridge, approximately 15 miles north of the project area. This project proposes minor in-water work to armor a portion of the bank and is anticipated to occur in fall 2011, during low water flows.

The Proposed Action would armor the portion of bank that is currently unprotected, upstream of the Deer Creek Road Bridge. It would complete existing armaments that were previously installed by the County and the USACE. In the future, it is possible that additional armoring further upstream would be needed. These projects, which require in-water work, are permitted through the County, IDEQ, IDFG, IDWR, and USACE. In addition to appropriate structure/site design and implementation of permit conditions, through its floodplain ordinance the County must ensure that any fill proposed within the FEMA-mapped floodway does not cumulatively increase the base flood elevation within the community.

[1] A minority is "a person who is: (1) Black (a person having origins in any of the black racial groups of Africa); (2) Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race); (3) Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or (4) American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through Tribal affiliation or community recognition)."

[2] Low-income is identified as "one whose median household income is at or below the Department of Health and Human Services poverty guidelines." Income data based on Department of Health and Human Services guidelines are difficult to gather, so Census Bureau data are often used for environmental justice analyses.

Given the small scale of these projects and how far apart they are, in stream work is not expected to cause cumulative adverse effects to surface waters, floodplain values or base flood elevations.

Furthermore, the Proposed Action and other activities that the County is planning along the Big Wood River are not expected to have adverse cumulative impacts to geology, soils, and climate; wetlands; vegetation, wildlife and fish; cultural resources; or environmental justice; provided permits and approvals are obtained and conditions adhered to during project implementation.

SECTION FIVE AGENCY COORDINATION AND PUBLIC INVOLVEMENT

During project development, Blaine County staff conducted site visits with representatives from the IDWR, the USACE, and various property owners to discuss the merits of the proposed project. During preparation of this EA, the SHPO and following Tribes were also contacted for comment: the Shoshone Tribe of the Wind River Reservation (Fort Washakie, Wyoming), and the Shoshone-Bannock Tribes of the Fort Hall Reservation (Fort Hall, Idaho). SHPO concurrence was received March 3, 2011. The Tribes did not have any comments on the draft EA.

A public notice was required for the draft EA (Appendix C). The public, Tribes, and agencies had the opportunity to comment on the EA for 30 days after the publication of the notice, from March 16, 2011 through April 15, 2011. The notice identified the action, location of the proposed site, participants, location of the draft EA, and who to write to provide comments. No public comments were received.

The Blaine County Multi-Jurisdiction All Hazard Mitigation Plan is relevant to public involvement efforts supporting this EA. The plan was developed in 2008. The jurisdictions participating in the plan include Blaine County and the Cities of Sun Valley, Ketchum, Hailey, Bellevue, and Carey. The plan is designed to interface with the 2007 State of Idaho Multi-Hazard Mitigation Plan.

The Blaine County All Hazard Mitigation Planning Committee was formed in October 2008. The committee includes representatives from the Blaine County Local Emergency Planning Committee, Blaine County department heads, representatives from transportation districts and the incorporated cities, representatives from the major utility providers, interested media, and members of the public. A public meeting will be held after each annual evaluation of the plan.

The meetings are a forum where the public can express concerns, opinions, or new alternatives to be included in the plan.

One of the main goals of the plan is to develop actions that will reduce damage to County infrastructure due to flash floods and stream flooding. According to a public questionnaire, river flooding was listed as the third highest threat/public concern (Blaine County 2009).

SECTION SIX PERMITTING, PROJECT CONDITIONS, AND MITIGATION MEASURES

The project will require permitting and activities at the Proposed Action Alternative site are expected to comply with the project's permitted scope of work. During the final design and permitting phase of the project, other methods of bank protection may be considered, including the installation of engineered logjams to direct the river away from the bridge, and installation of bank protection consisting of logs and some rock. The County will be required to comply with the following project conditions and mitigation measures, as part of the grant award:

- The County shall obtain all required local, State, and Federal permits and approvals prior to implementing the Proposed Action Alternative and comply with all conditions imposed. These include, but are not limited to, the following:
    - Blaine County Floodplain Ordinance permitting per the requirements of the National Flood Insurance Program (including a FEMA No-rise Certification for Floodways). The No-rise Certification requires an engineering analysis be performed by a registered professional engineer.
    - A Stream Alteration Plan, to be approved by Blaine County and the IDFG.
    - Permits from the IDEQ and IDWR for in-water work.
    - A Nationwide Permit 13 for bank stabilization from the USACE.
- The County is responsible for selecting, implementing, monitoring, and maintaining BMPs to control erosion and sediment, reduce spills and pollution, and provide habitat protection. Specific BMPs for dewatering include the following:
    - A State of Idaho-qualified fisheries biologist shall be on site during dewatering procedures to electro-shock and transplant fish to the flowing portion of the Big Wood River as needed.
    - Discharge of pumped sump water shall be routed into a temporary above-ground settling tank (Baker Tank or similar structure) and treated with a sand filter, as necessary to achieve less than 5 nepholometric turbidity units below the background level, before release into the river. Any groundwater can be pumped directly downstream to the Big Wood River, assuming that it is low in turbidity.
- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other laws and Executive Orders.
- In the event that potentially significant cultural resources are discovered during project activities, and in compliance with State and Federal laws protecting cultural resources, including Section 106 of the NHPA, work in the immediate vicinity shall cease, the area secured, and the SHPO and FEMA notified.
- In the unlikely event that a Canada lynx is observed during project activities, work in the immediate vicinity shall be discontinued and the IDFG and USFWS notified.
- Vegetation removal will occur in late summer and early fall outside of the typical migratory bird nesting season, which ranges from March through August or as determined by a local qualified biologist. If clearance activities must take place during

- the nesting season, a breeding bird survey shall be conducted by a qualified biologist prior to vegetation removal activities. If active nests are located within the vegetation removal areas, the nest tree will be preserved until all nestlings have fledged from the nest.
- Construction shall occur during the low water season. However, if construction is required during the flood season, as determined by the local floodplain administrator, all construction equipment shall be staged in an area not susceptible to flood waters or be readily transportable out of the floodplain to avoid any flood damage.

SECTION SEVEN CONCLUSION

The draft EA evaluated environmental and historic resources that could be affected by the Proposed Action. The evaluation did not identify any significant adverse impacts associated with the resources of geology, soils, climate; water resources, floodplains, wetlands; vegetation, fish and wildlife (including ESA-listed and habitat); historic, archaeological, and cultural resources; and socioeconomic and environmental justice. Implementing the Proposed Action, along with conditions associated with permits or approvals is expected to avoid or minimize potential for adverse effects associated with the action. FEMA will issue a Finding of No Significant Impact for the Proposed Action.

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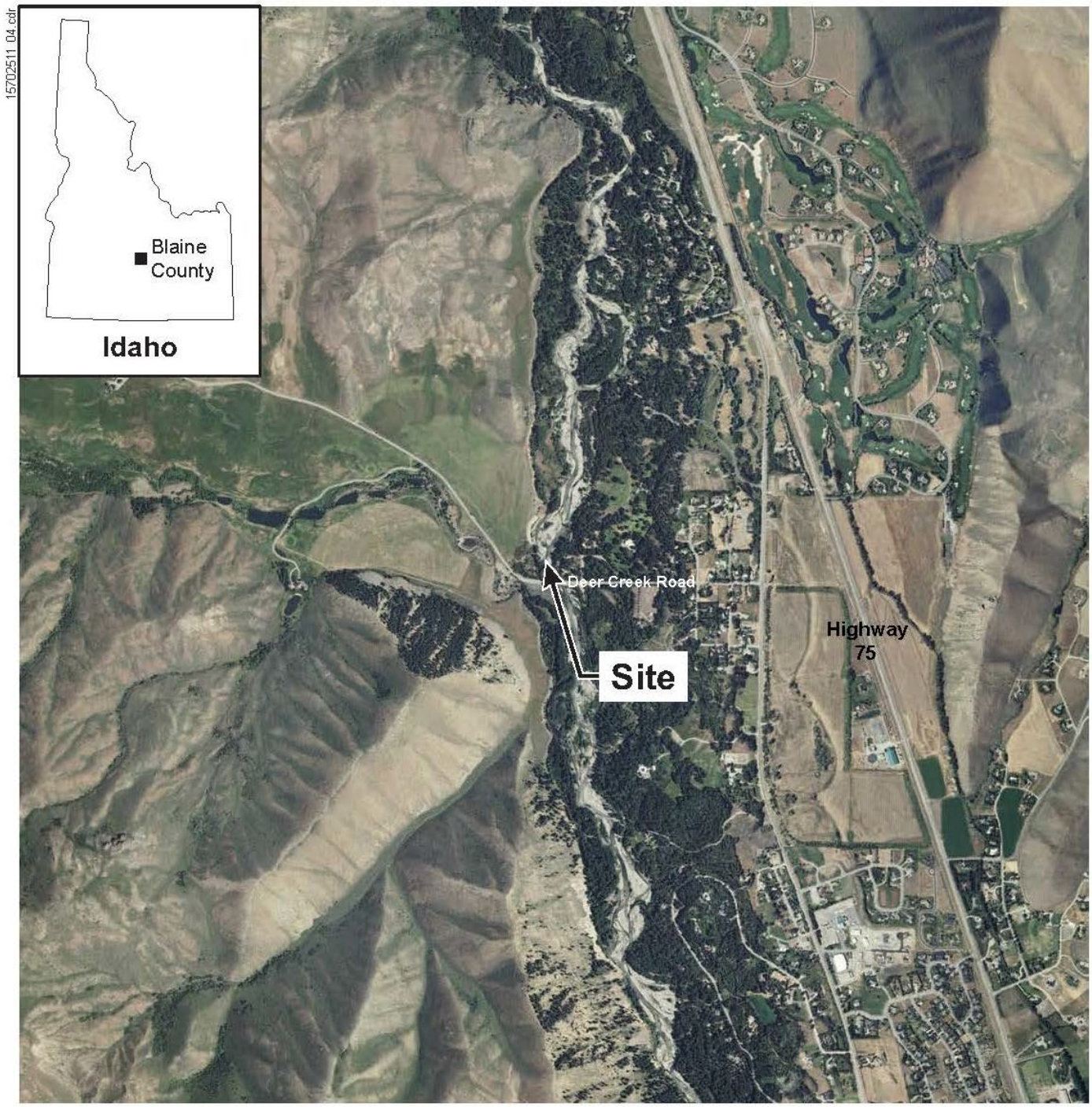
APPENDIX A
FIGURES

FIGURES

Figure 1 – Project Vicinity Map
Figure 2 – May 2006 Flood Damage
Figure 3 – Proposed Project
Figure 4 – Conceptual Engineering Drawing
Figure 5a – Flood Insurance Rate Map, Panel 16013C0661E
Figure 5b – Flood Insurance Rate Map, Panel 16013C0662E
Figure 6 – Area of Potential Effects Map



Source: USGS 7.5 minute quadrangle map Hailey, ID dated 2010.

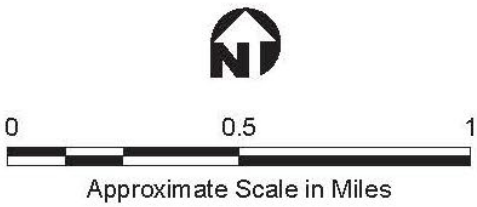


Figure 1

Project Vicinity Map

Job No. 15702511

Blaine County, Idaho

15702511_05.cdr

Flooding along west bank, looking north of bridge.

Damage to bridge from flood.

Looking south towards bridge. Hanging guardrails mark damaged section of bridge (see top right photograph).

USACE emergency riprap section, northwest of bridge.

Figure 2

May 2006 Flood Damage

Blaine County, Idaho

Job No. 15702511

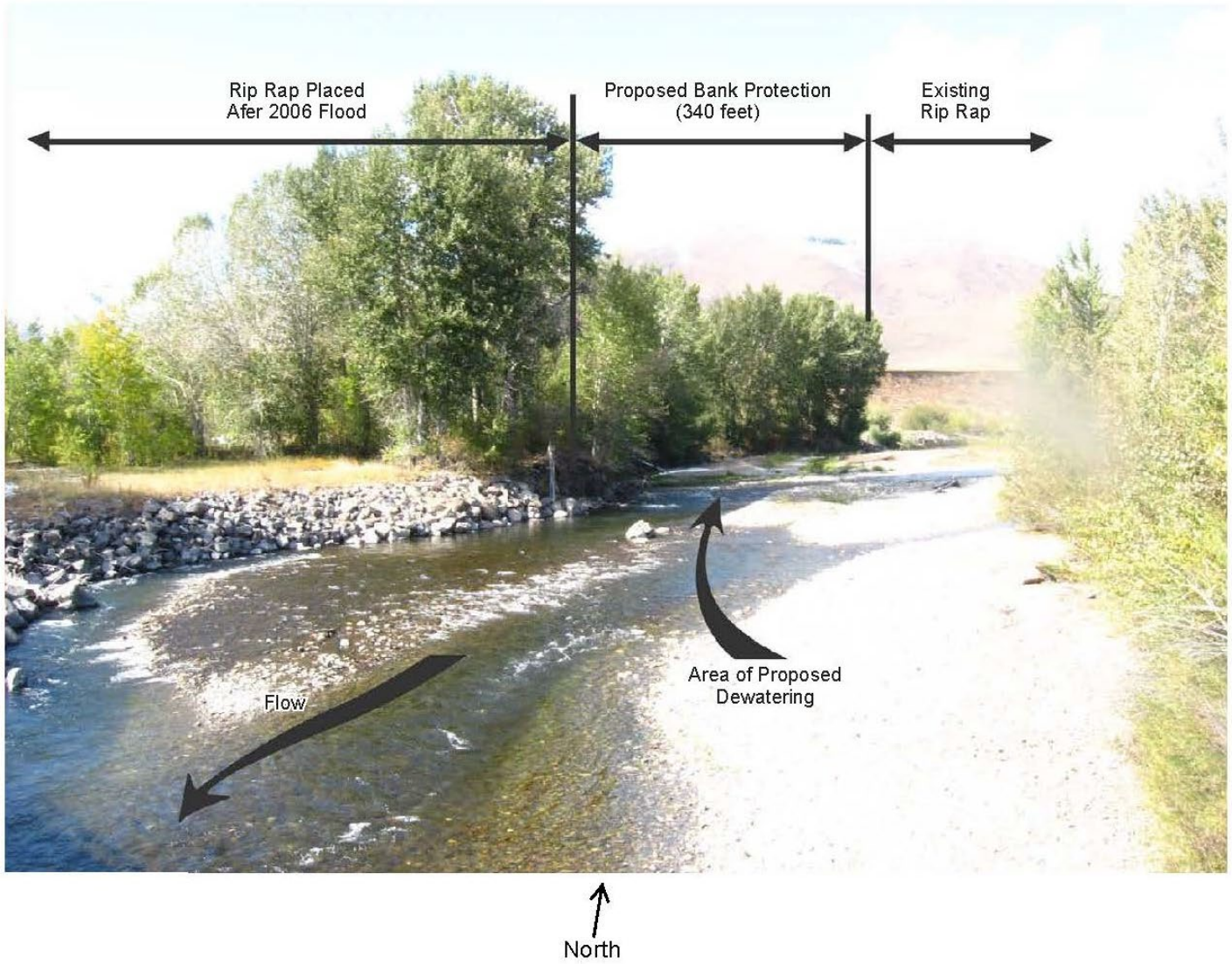
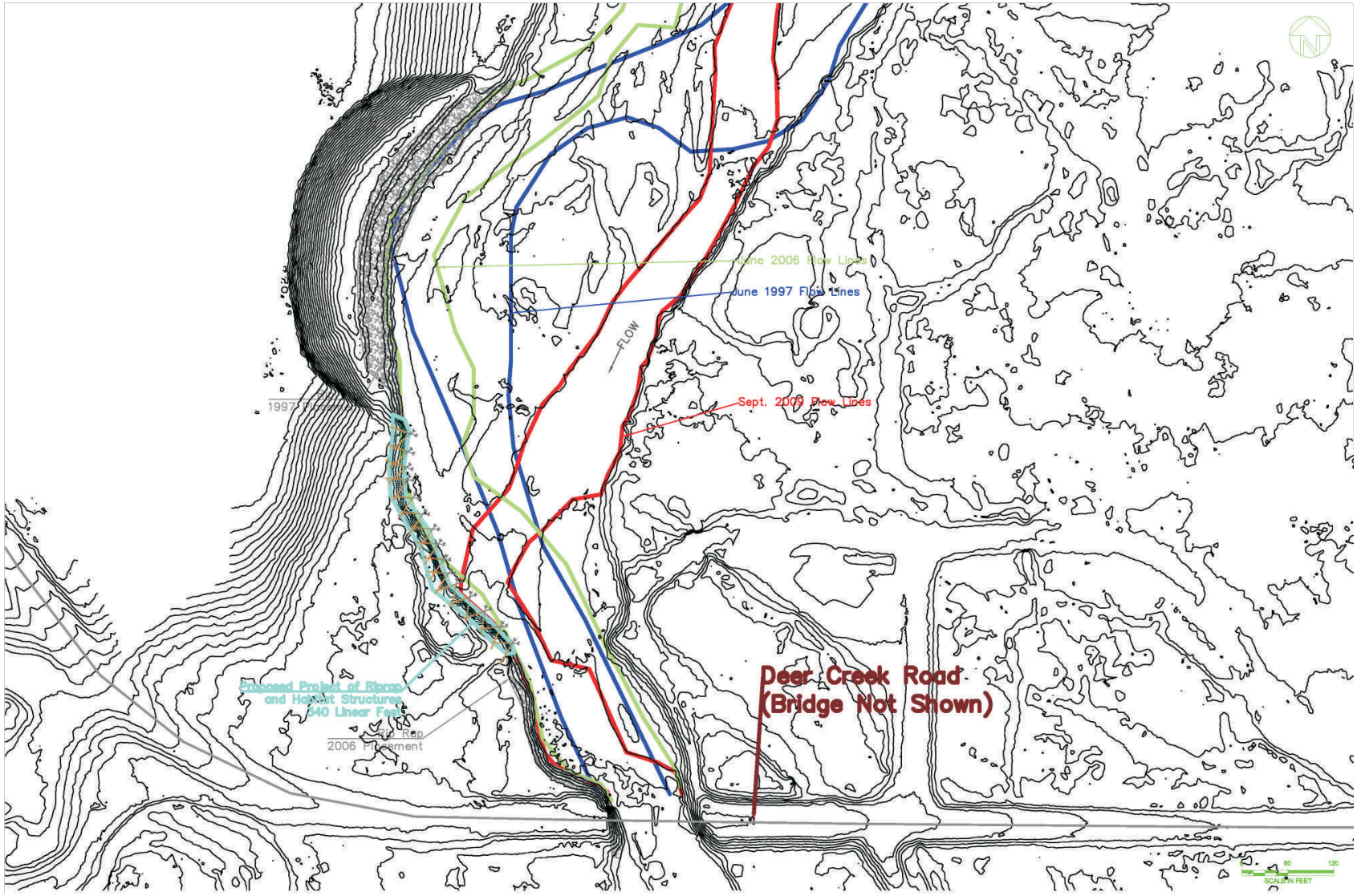


Figure 3

Proposed Project

Blaine County, Idaho

Job No. 15702511



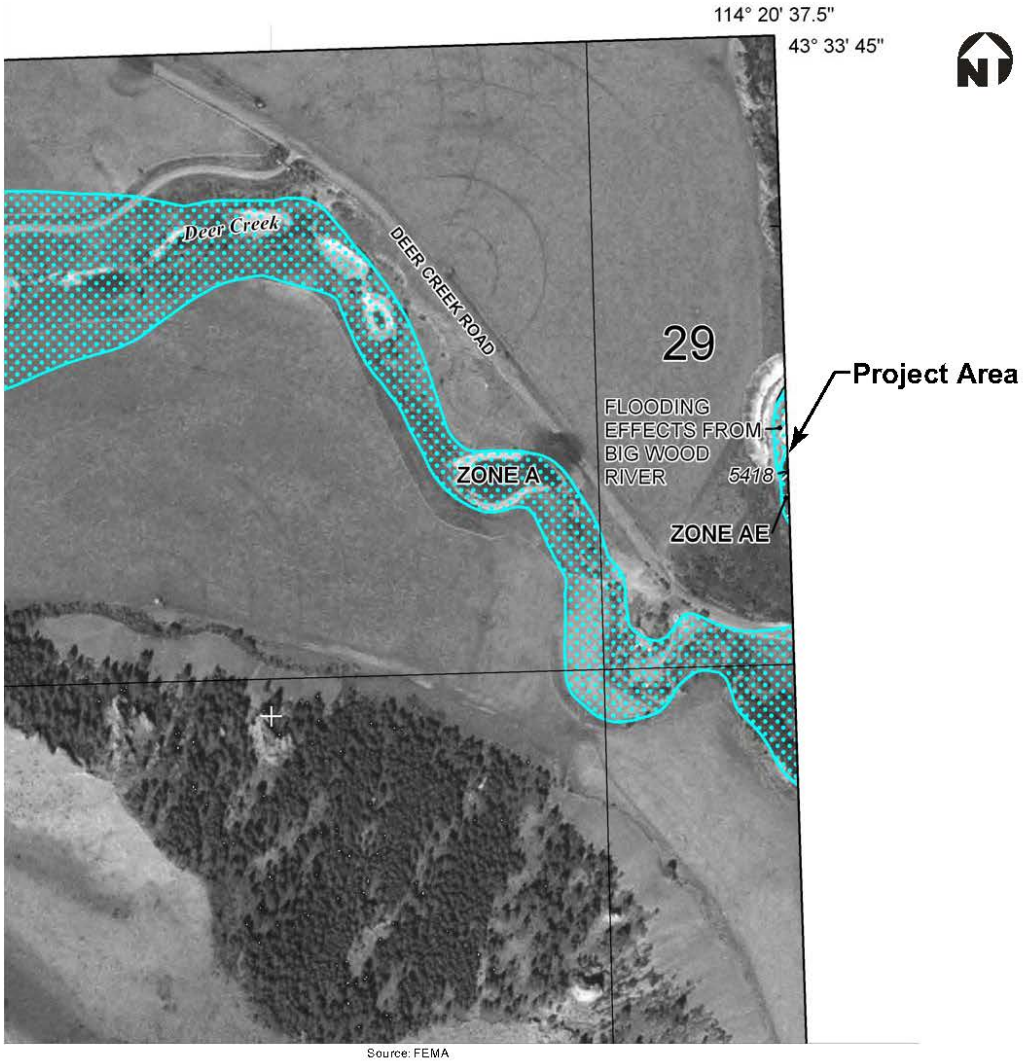
Source: ENTRIX

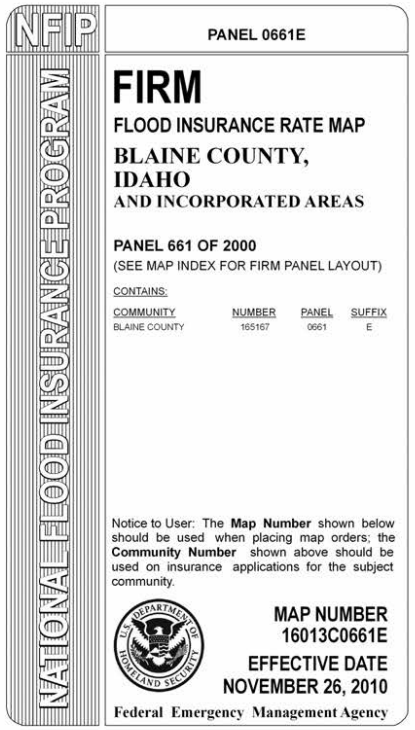
Job No. 15702511

Figure 4

Conceptual Engineering Drawing

Blaine County, Idaho





This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

0 500 1000

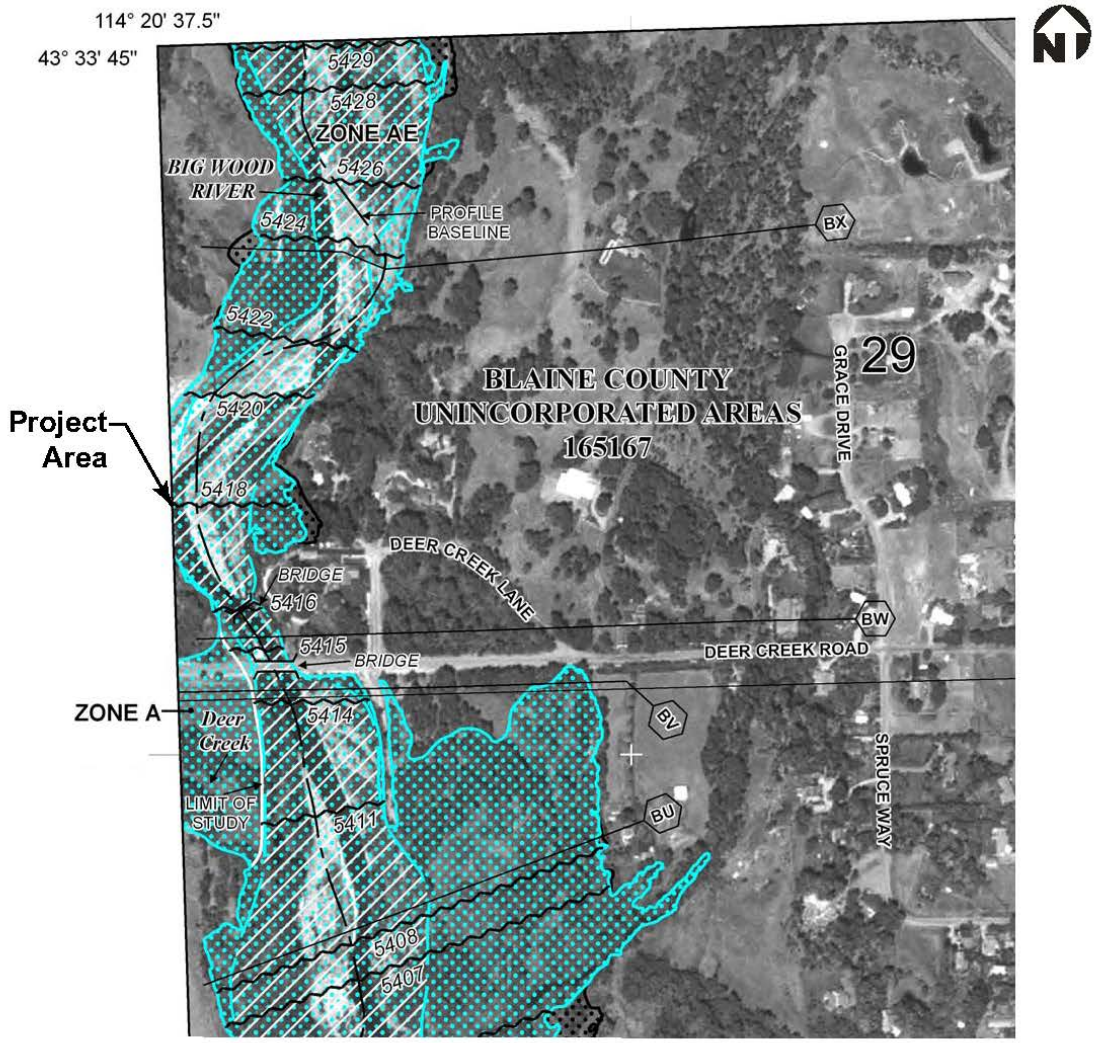
Approximate Scale in Feet

Figure 5A

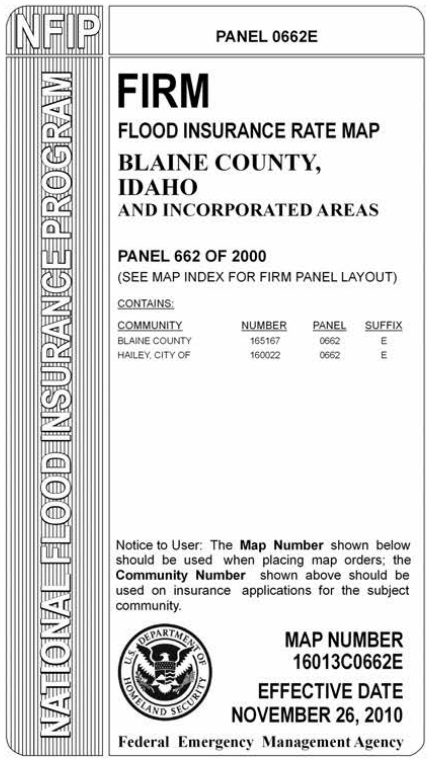
Job No. 15702511

Flood Insurance Rate Map, Panel 16013C0661E

Blaine County, Idaho



Source: FEMA



This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

0 500 1000

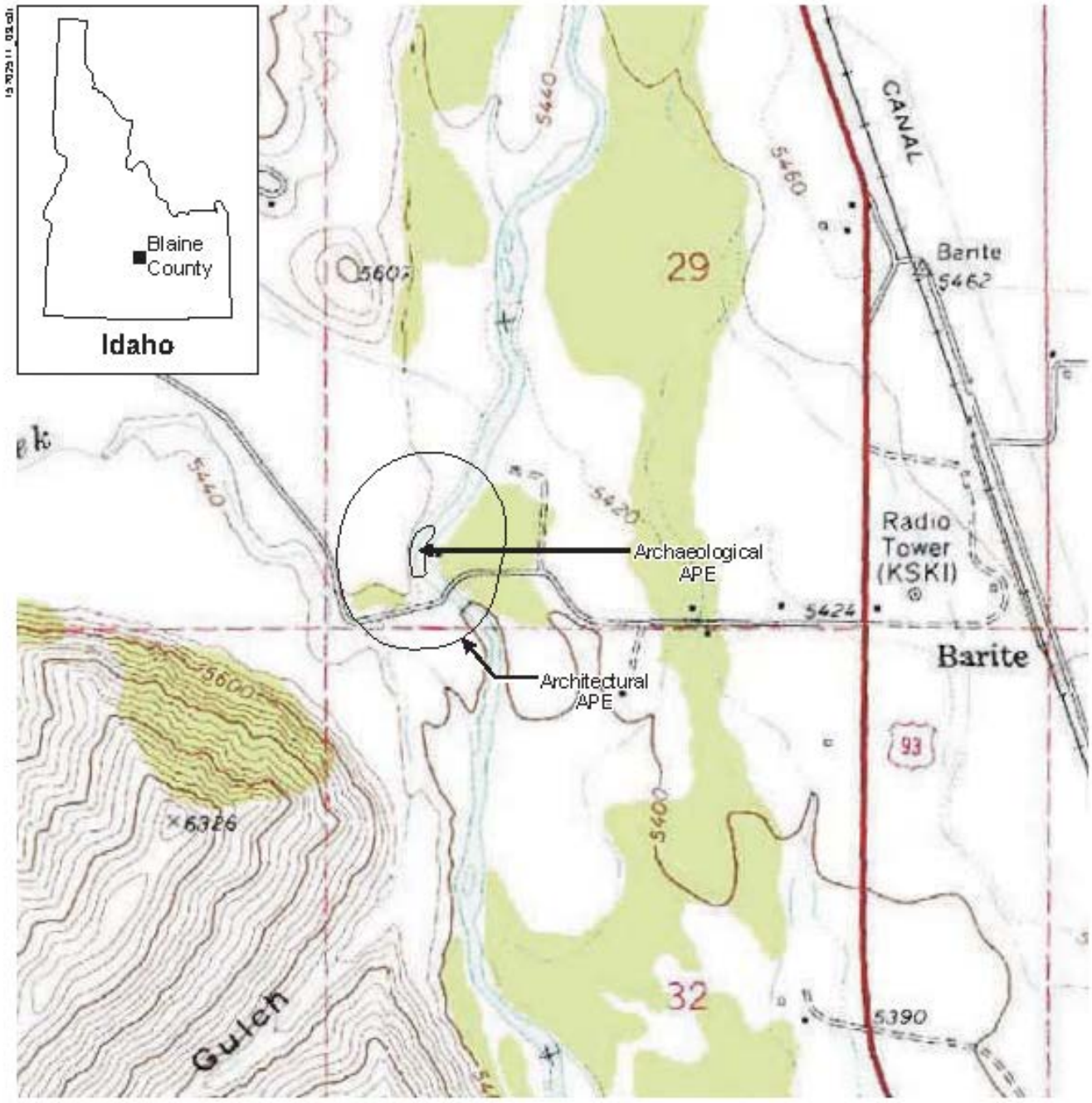
Approximate Scale in Feet

Figure 5B

Job No. 15702511

Flood Insurance Rate Map, Panel 16013C0662E

Blaine County, Idaho



Source. USGS 7.5 minute quadrangle map Hailey ID dated 1967.

0 0.25 0.5

Approximate Scale in Miles

Figure 6

Area of Potential Effects Map

Job No. 15702511

Blaine County, Idaho

APPENDIX B
SHPO CONCURRENCE

Idaho • State Historical SOCIETY

C.L. "Butch" Otter
Governor of Idaho

Janet Gallimore
Executive Director

Administration
2205 Old Penitentiary Road
Boise, Idaho 83712-8250
Office: (208) 334-2682
Fax: (208) 334-2774

Membership and Fund Development
2205 Old Penitentiary Road
Boise, Idaho 83712-8250
Office: (208) 514-2310
Fax: (208) 334-2774

Historical Museum and Education Programs
610 North Julia Davis Drive
Boise, Idaho 83702-7695
Office: (208) 334-2120
Fax: (208) 334-4059

State Historic Preservation Office and Historic Sites Archeological Survey of Idaho
210 Main Street
Boise, Idaho 83702-7264
Office: (208) 334-3861
Fax: (208) 334-2775

Statewide Sites:
- Franklin Historic Site
- Pierce Courthouse
- Rock Creek Station and
- Stricker Homesite

Old Penitentiary
2445 Old Penitentiary Road
Boise, Idaho 83712-8254
Office: (208) 334-2844
Fax: (208) 334-3225

Idaho State Archives
2205 Old Penitentiary Road
Boise, Idaho 83712-8250
Office: (208) 334-2620
Fax: (208) 334-2626

North Idaho Office
112 West 4th Street, Suite #7
Moscow, Idaho 83843
Office: (208) 882-1540
Fax: (208) 882-1763

DATE: March 4, 2011
TO: Mark Eberlein, FEMA
FEDERAL AGENCY: FEMA
PROJECT NAME: Deer Creek Bridge and Bank Stabilization Project, Blaine County, Idaho

Section 106 Evaluation

	The field work and documentation presented in this report meet the Secretary of the Interior's Standards.
	No additional investigations are recommended; project can proceed as planned.
	Additional information is required to complete the project review. (See comments.)
	Additional investigations are recommended. (See comments.)

Identification of Historic Properties (36 CFR 800.4):

X	No historic properties were identified within the project area.
X	Property is not eligible. Reason: Age—less than 50 years.
	Property is listed in National Register of Historic Places.
	Property is eligible for listing in the National Register of Historic Places. Criterion: __A __B __C __D Context for evaluation:
X	*No historic properties* will be affected within project area.

Assessment of Adverse Effects (36 CFR 800.5):

	Project will have *no adverse effect* on historic properties.
	Project will have an *adverse effect* on historic properties; further consultation is recommended.

Comments:

If archaeological remains are discovered during construction, work should halt until a professional archaeologist has assessed the discovery.

Susan Pengilly

Susan Pengilly, Deputy SHPO
State Historic Preservation Office

March 4, 2011
Date

APPEDNIX C
PUBLIC NOTICE FOR THE DRAFT EA

PUBLIC NOTICE

Federal Emergency Management Agency
Draft Environmental Assessment
Bank Protection in Central Idaho

The U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) proposes to provide funding to Blaine County for the Deer Creek Road Bridge/Bank Protection Project. Funding would be provided as authorized by §203 of the Robert T. Stafford Disaster Assistance and Emergency Relief Act (Stafford Act), 42 USC.

FEMA prepared a draft environmental assessment (EA) for the proposed project pursuant to the National Environmental Policy Act (NEPA) of 1969 and FEMA's implementing regulations found in 44 Code of Federal Regulations Part 10. The EA evaluates alternatives for compliance with applicable environmental laws, including Executive Orders 11990 (Protection of Wetlands), 11988 (Floodplain Management), and 12898 (Environmental Justice). The alternatives evaluated in the EA are the (1) no action; and (2) reduction of flood-related erosion through bank armoring upstream of the Deer Creek Road Bridge, located north of Hailey, Idaho.

The EA is available for review online at the FEMA environmental Web site at: http://www.fema.gov/plan/ehp/envdocuments under Region X. If no significant issues are identified during the comment period, FEMA will finalize the EA, issue a Finding of No Significant Impact (FONSI), and fund the project. Unless substantive comments are received, FEMA will not publish another notice for this project. However, should a FONSI be issued, it will be available for public viewing at http://www.fema.gov/plan/ehp/envdocuments under Region X.

The draft EA is also available for review on March 16, 2011 at the Blaine County Courthouse at 219 First Avenue South, Hailey, ID.

Written comments on the draft EA should directed no later than 5 p.m. on April 15, 2011 to Mark Eberlein, Regional Environmental Officer, FEMA Region X, 130 228th Street SW, Bothell, WA 98021, or by e-mail to mark.eberlein@dhs.gov. Comments also can be faxed to 425-487-4613.