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

REPLY TO
ATTENTION OF

Planning Branch

NOTICE OF AVAILABILITY

DRAFT ENVIRONMENTAL ASSESSMENT

Shoreline Stabilization

Sandpoint Water Treatment Plant

BONNER COUNTY, ID

DRAFT FINDING OF NO SIGNIFICANT IMPACT

The U.S. Army Corps of Engineers (USACE) is planning to build a riprap structure along approximately 950 feet of shoreline to provide bank stabilization along the Pend Oreille River upstream from Albeni Falls Dam, near Sandpoint, Idaho. Operation of the Albeni Falls Dam project is having an adverse effect on several areas along the north shore of the Pend Oreille River, by causing shoreline erosion due to changing reservoir levels. Reservoir drawdown and wave action have caused erosion and incremental bank failure at the property surrounding the Sandpoint Water Treatment Plant and the former location of Humbird Mill, a National Register-eligible site. The erosion has also progressed toward a stretch of the Burlington Northern Santa Fe railroad and is encroaching on BNSFRR property. Without intervention, additional erosion may eventually threaten the physical stability of the water treatment plant and the BNSFRR tracks, which in turn could threaten the water supply for the city of Sandpoint and movement of goods throughout the region. Additional erosion could also lead to loss of riparian habitat and perched wetlands that currently exist along the 950 feet of shoreline. The Draft Environmental Assessment (EA) evaluates the environmental effects of the proposed shoreline stabilization along 950 feet of Lake Pend Oreille.

The Draft EA and Draft Finding of No Significant Impact (FONSI) are being circulated for 30 days for review and comment. Comments should be returned to the Corps of Engineers no later than November 19, 2007.

If you have any questions, about the Draft EA or Draft FONSI or would like to receive a hard copy of the documents, please contact:

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The Draft EA and Draft FONSI are available online under the project name “Sandpoint Water Treatment Plant Shoreline Stabilization” at:

http://www.nws.usace.army.mil/ers/doc_table.cfm

DRAFT ENVIRONMENTAL ASSESSMENT

Sandpoint Bank Stabilization

Sandpoint, Bonner County, Idaho

October 2007

US ARMY CORPS OF ENGINEERS
SEATTLE DISTRICT

ALBENI FALLS DAM
IDAHO

US Army Corps of Engineers ®
Seattle District

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Sandpoint Water Treatment Plant and Humbird Mill Historic Property Management
Draft Environmental Assessment
October 2007

Responsible Agency: The responsible agency for this shoreline stabilization project is the U.S. Army Corps of Engineers, Seattle District.

Abstract:
This Environmental Assessment (EA) evaluates the environmental effects of the proposed shoreline stabilization along the Pend Oreille River upstream from Albeni Falls Dam, near Sandpoint, Idaho. Operation of the Albeni Falls Dam project is having an adverse effect on several areas along the north shore of the Pend Oreille River, by causing shoreline erosion due to changing reservoir levels. Reservoir drawdown and wave action have caused erosion and incremental bank failure at the property surrounding the Sandpoint Water Treatment Plant and the former location of Humbird Mill, a National Register-eligible site. The erosion and bank failure have also progressed toward a stretch of the Burlington Northern Santa Fe railroad and is encroaching on BNSFRR property. Other reaches of the river shoreline under Corps responsibility have been stabilized using riprap in similar fashion through construction contracts or other agreements dating back to 1964.

The proposed project will not constitute a major federal action significantly affecting the quality of the human environment.

This document is also available online at: http://www.nws.usace.army.mil/ers/doc_table.cfm

THE OFFICIAL COMMENT PERIOD ON THIS DRAFT ENVIRONMENTAL ASSESSMENT ENDS ON NOVEMBER 19, 2007

Please send comments, questions, and requests for additional information to:

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1 INTRODUCTION

The City of Sandpoint, Idaho has expressed concern in recent years about bank erosion near its Water Treatment Plant (WTP) located on the northwestern shore of Lake Pend Oreille. The bank erosion has progressed a few feet per year for the past several years and is expected to continue in that manner if not addressed. In response, the U.S. Army Corps of Engineers (USACE) is planning to build a riprap structure along approximately 950 feet of shoreline to provide bank stabilization and to prevent shoreline erosion.

Because the bank stabilization project involves the action of a federal agency, an Environmental Assessment (EA) is required in accordance with the National Environmental Policy Act of 1969 (Title 42 United States Code (USC), Chapter 55, Section 4321 et seq.); Title 40 Code of Federal Regulations (CFR), Chapter V, Sections 1500-1508; and USACE Environmental Regulation (ER) 200-2-2. This draft EA discusses the need for the bank stabilization project, the proposed action and alternatives considered, the environmental effects of the project, and the agencies and persons consulted.

Comments on this Draft EA maybe sent by mail, email, or phone to:

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Comments must be received by November 19, 2007 to be addressed in the Final EA.

1.1 Project Need

The bank stabilization project is needed to prevent further erosion of the shoreline near the Sandpoint WTP. The affected shoreline is located in Sections 14, 15, 22, and 23, of Township 57 North, Range 2 West, Bonner County, Idaho (Figure 1). Other property owners who may be affected include the Burlington Northern – Santa Fe Railroad (BNSFRR), Mr. Dan Hall, and the Bella Vista Group (BVG) (see Figure 1). The project area is on a strip of land on the east side of Sandpoint between Lake Pend Oreille and Sand Creek (Figure 2).

The erosion has been caused by operation of Albeni Falls Dam (i.e., adjusting lake levels), strong winds, storm events, and summer boating activities. Without intervention, additional erosion may eventually threaten the physical stability of the water treatment plant and the BNSFRR tracks, which in turn could threaten the water supply for the city of Sandpoint and movement of goods throughout the region. Additional erosion could also lead to loss of riparian habitat and perched wetlands that currently exist along the 950 feet of shoreline.

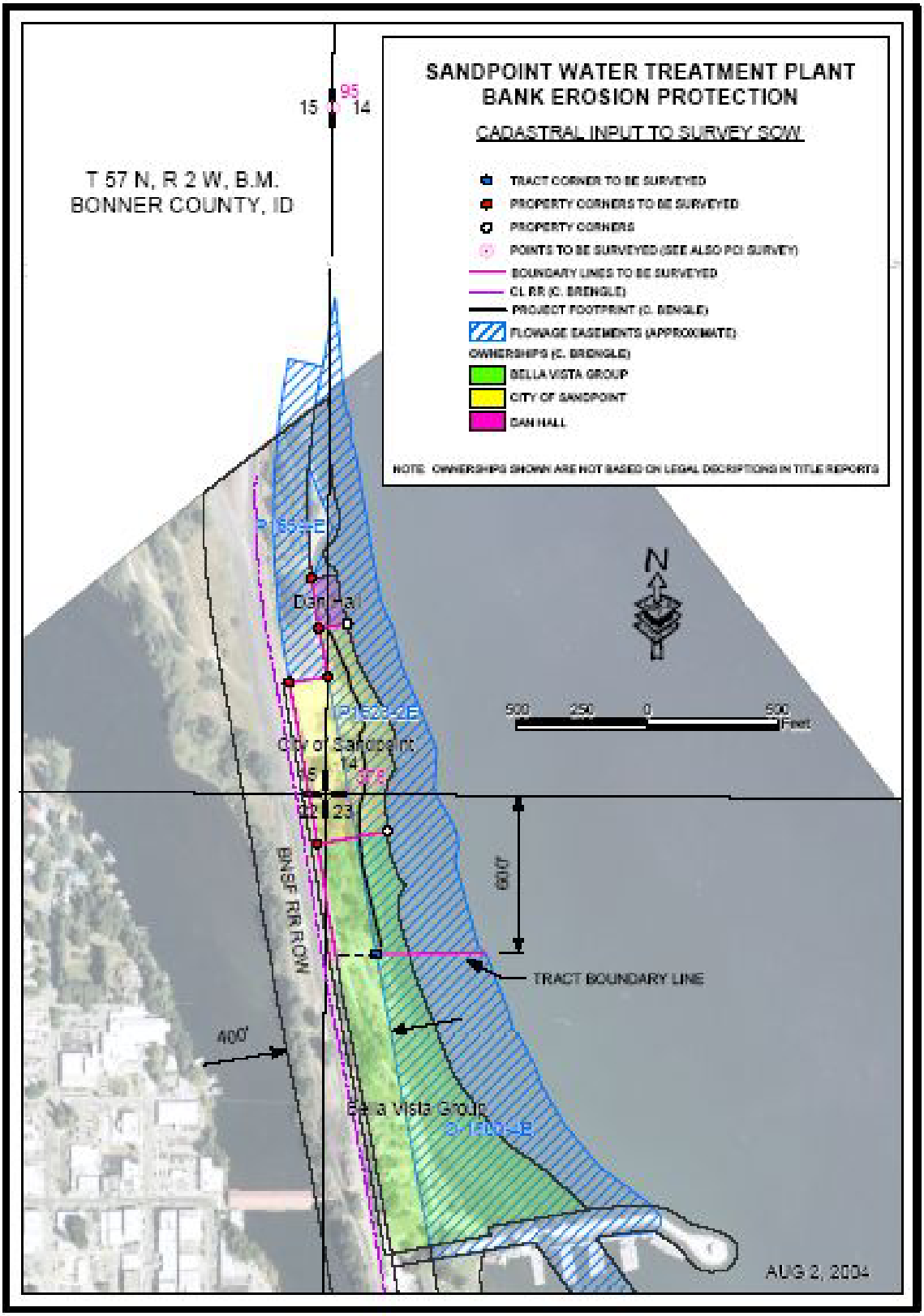

Figure 1. Project area and survey of ownership

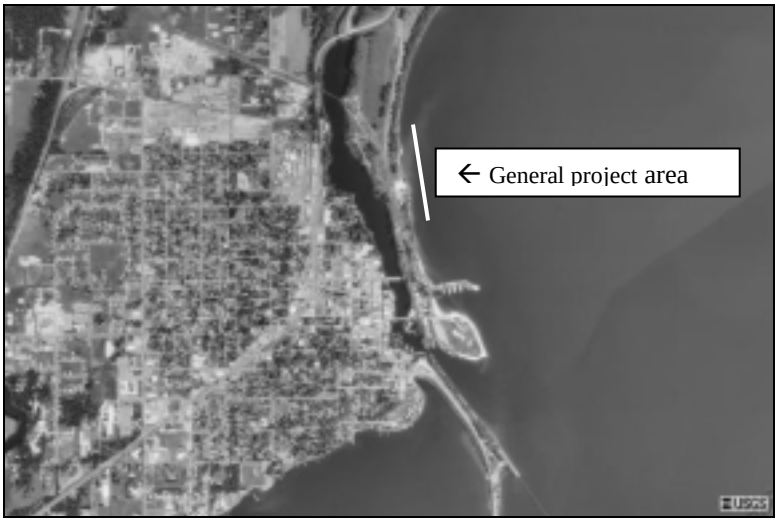

Figure 2. USGS aerial photo of Sandpoint and project area

1.2 Authority

Construction of the Albeni Falls Dam was authorized under the Flood Control Act of 17 May 1950 (Public Law 516, 81st Congress, 2nd Session) in accordance with Senate Document 9, 81st Congress, First Session, as part of a comprehensive plan for the development of the Columbia River System. Funds are allocated each year by Congress for operation and maintenance of the Albeni Falls Dam. The dam, managed by the USACE, is used to provide power, to control flooding, and to stabilize water levels in Lake Pend Oreille.

The authority for bank stabilization work is Section 9 of the Flood Control Act of 1946, 33 USC 701(q), which states:

> "Whenever the Chief of Engineers shall find that any highway, railway, or utility has been or is being damaged or destroyed by reason of the operation of any dam or reservoir project under the control of the Department of the Army, he may utilize any funds available for the construction, maintenance, or operation of the project involved for the repair, relocation, restoration, or protection of such highway, railway, or utility: Provided that this section shall not apply to highways, railways, and utilities previously provided for by the Department of the Army, unless the Chief of Engineers determines that the actual damage has or will exceed that for which provision had previously been made."

2 PROPOSED ACTION AND ALTERNATIVES

The following sections describe the proposed action (Alternative A, the preferred action), Alternative B, and the "No Action" Alternative that were considered for the stabilization work.

2.1 Proposed Action (Alternative A, preferred)

The proposed action is to build a riprap structure along approximately 950 feet of shoreline on the northwestern shore of Lake Pend Oreille to stabilize the bank and prevent further erosion of

the bank near the Sandpoint WTP and the BNSFRR property. Construction is expected to take three weeks, and the time frame available for completion is estimated to be early January through late April 2008. The proposed action area consists of a riparian shoreline that varies in width from approximately 164 feet to 328 feet at the widest point. The eastern portion borders Lake Pend Oreille and the western portion borders the BNSFRR property and the Sandpoint WTP. This area contains various species of deciduous and coniferous trees with thick undergrowth, and bald eagles have been noted in some of the taller trees in this area.

The Bella Vista Group is expected to allow access to the work site over their road, provided that the USACE repair any damage to the road. Should a second access option be needed, the USACE will work with Montana Rail Link (MRL) and BNSFRR to construct three temporary railroad crossings over the BNSFRR tracks. Secure barriers would be provided to prevent public access to the site during construction. After construction the crossings would be removed.

The proposed work will involve placing a 15-foot-wide working pad of class IV riprap at the north end of the eroding shoreline, which abuts the bank protection on the Hall property. The pad will continue south for approximately 950 lineal feet (up to 1050 lineal feet, to allow for irregularities in shoreline) and tie into existing bank protection on the Bella Vista Group property. The working pad will be subsequently removed and the area contoured using bank protection material to complete the bank stabilization.

Bank stabilization material will consist of class IV riprap, spalls (rock chips), 4-inch minus crushed stone, and granular fill. Approximately 10,000 tons of class IV riprap and 1,000 tons of 4-inch minus crushed stone will be used. Filter fabric will be placed along the shoreline next to the bank to minimize the amount of fine sediment that enters the lake. All trees that have fallen into the lake will be removed and coniferous trees, which are resistant to breakdown, will be placed into the bank stabilization project to provide fish habitat. No maintenance road will be constructed as part of the proposed action. Project drawings are included in Appendix A.

Bank stabilization was chosen as the preferred action because it will prevent further erosion of the Sandpoint WTP and adjacent properties, and prevent loss of riparian habitat. This alternative was also chosen to support Section 9 of the Flood Control Act of 1946, 33 USC 701(q), which allows the Department of Army to repair damage to a highway, railway, or utility caused by operation of any Army dam or reservoir project. No other alternative had fewer impacts to the environment or was deemed less costly in a long-term analysis.

2.2 Alternative B

Under Alternative B, the USACE would have performed the same bank stabilization work as described above, but also constructed a permanent maintenance road along the stabilized area. This option was strongly opposed by the natural resource agencies (Idaho Department of Fish and Game, Idaho Department of Environmental Quality, Idaho Department of Lands, and the U.S. Fish and Wildlife Service) because of difficulties that have been encountered with a similar maintenance road constructed for Black Rock bank stabilization work (Black Rock is north of Sandpoint). Specifically, opportunistic individuals barged in mobile trailers, placed them on the flat area provided by the maintenance road, and took up residence in the stabilized area. Consequently, to avoid the potential for a similar situation, Alternative B was not chosen.

2.3 No Action Alternative

Under the no action alternative, no bank stabilization measures would be taken. The shoreline would (presumably) continue to erode and eventually destabilize the Sandpoint WTP, the BNSFRR property, and other stakeholder property. The no action alternative would also lead to further loss of riparian habitat and perched wetlands that currently exist along the 950 feet of shoreline. Because of these negative effects, this alternative was rejected.

3 EXISTING ENVIRONMENT

The following sections discuss the current environmental conditions of the project area. Sections 4, 5, and 6 discuss the potential, adverse, and cumulative effects of the proposed action, respectively.

3.1 Hydrology and Geology

Lake Pend Oreille is situated in the Clark Fork – Pend Oreille watershed, which covers approximately 24,400 square miles (USACE 2003). Lake Pend Oreille is one of the deepest and largest lakes in the western United States, having a maximum depth of approximately 1,200 feet and a surface area of approximately 128 square miles (TSWQC 2004). Lake Pend Oreille lies in the Purcell Trench, a deep, glacially carved, U-shaped valley separating the Cabinet, Selkirk, and Coeur d'Alene Mountain Ranges. Sheer rock slopes that continue steeply below the water surface bound much of the lake's shoreline. The remainder of the perimeter is a combination of shifting river deltas, flood plain margin, and relict glacial terraces. The section of shoreline that is exclusively glacial terrace runs from the city of Dover northeast past Sandpoint to Kootenai, Idaho. It is composed predominantly of sand overlying silt and clay, and is characterized by perched water tables and unstable, erosion-prone soil conditions. The Sandpoint project area lies within this glacial terrace (Doughty and Price 2000).

Conditions in Lake Pend Oreille, such as lake stage and timing of inflow, are influenced not only by operation of the Albeni Falls Dam, but also by operation of upstream projects and basin hydrologic factors. The Clark Fork River is the lake's largest tributary and contributes approximately 85 percent of the total inflow; additional inflow is provided by the Pack River and Sand Creek (TSWQC 2004). The Pend Oreille River, which flows out of Lake Pend Oreille to the west, provides an average yearly stream flow of approximately 24,459 cubic feet per second to Albeni Falls Dam (Brengle 2005, pers. comm.).

3.2 Water Quality

Lake Pend Oreille is a cool, temperate water body with partial mixing of the water column in midwinter and spring. A surface water temperature of 50 degrees F (10 degrees C) is usually reached by April-May and a maximum summer temperature of about 75 degrees F (24 degrees C) occurs in July and August. Dissolved oxygen (DO) concentrations frequently range between 7.8 mg/L to 14.0 mg/L. The high DO content, low organic production in surface water, and low nutrient concentrations characterize Lake Pend Oreille as oligotrophic (i.e., having low nutrient content) (IDEQ 2001).

Although the main lake body may be considered oligotrophic, the littoral (near-shore) areas have begun to experience increased nitrogen and phosphorous loads in recent years due to human

activities, which have resulted in eutrophication. In fact, in 1994 the State of Idaho designated the lake as "threatened" due to the excess nutrients (IDEQ *et al*. 2004). In 1999 a problem assessment was conducted for the lake and a total maximum daily load (TMDL) for phosphorous was recommended. The TMDL was set at 9 µg/L (average) throughout the near-shore waters with 12 µg/L as an instantaneous "action level." It was also determined that the lake can assimilate a total allowable load of 4,588 pounds of total phosphorus per season, June through September, without exceeding water quality standards. The TMDL was approved by the U.S. Environmental Protection Agency (EPA) in October 2002, and a final nutrient management plan was developed in December 2004 (IDEQ *et al.* 2004). The State of Idaho has also designated Lake Pend Oreille and certain tributaries as special resource waters, a classification that allows no reduction in water quality (IDEQ 2005).

3.3 Vegetation

The dominant vegetation type surrounding Lake Pend Oreille consists of coniferous forest with scattered stands of deciduous trees in the moist lowland areas adjacent to the lake. Most of the shoreline and moister, shadier, landward area consists of cottonwood, birch, western red cedar, and western hemlock, while Douglas fir, western larch, western white pine, and lodgepole pine are more common in the drier areas. Utah honeysuckle, pachistma, black hawthorn, snowberry, huckleberry, Oregon grape, ocean-spray and ninebark are some of the understory shrubs found on the site. Forbs include western goldthread, bride's bonnet, common yarrow, starry Solomon-seal, trillium, and glacier lily (NPPC 2001; Hart 2004).

Much of the forest is second growth. Agricultural lands, particularly pastoral meadows, have been developed on the once-forested flatlands. Large portions of these meadows have now been converted into housing developments. The lake perimeter has some stretches that are completely developed as residential housing areas, while other remote areas of the lakeshore still remain forested, mostly on the south side of the lake.

3.4 Fish

Lake Pend Oreille is home to a variety of native and non-native fish that support a recreational fishery. Major species include the bull trout, rainbow trout, lake trout, cutthroat trout, bass, whitefish, perch, sunfish, and kokanee.

Cold-water species, such as bull trout, rainbow trout, and kokanee, tend to occupy the deeper waters of the lake, while warm water species, such as perch and sunfish, are more prevalent in the littoral areas of the lake and in the Pend Oreille River between Sandpoint and Albeni Falls Dam (IFG 2005). The proposed project area could provide some habitat value, especially to warm-water species, but the lakebed condition and the turbidity during the summer season are assumed to minimize any benefits to fish. The lakebed is characterized by shallow water during the summer, and is exposed and dry during most of the drawdown period.

3.5 Wildlife

Wildlife in the Lake Pend Oreille area consists primarily of waterfowl and birds of prey. (Threatened and endangered species are discussed separately in Section 3.6). State and Federal agencies intensively monitor waterfowl populations because of their importance for recreational hunting. While most of the 22 species of waterfowl recorded are migrants or winter residents,

several species of ducks and Canada geese nest and rear their young on and around the lake (NPPC 2001). Mallards, three species of teal, widgeons, coots, and pied-billed grebes are among the many species reported to nest along the shoreline and in adjacent marshes.

Birds of prey such as hawks, owls, osprey, and bald eagles are also associated with Lake Pend Oreille and the riparian areas. The area contains a relatively high number of bald eagles that both winter over and nest in the area because the lake does not completely freeze over. In addition, the Lake Pend Oreille area is thought to support one of the largest concentrations of nesting ospreys in the western U.S. (NPPC 2001).

3.6 Threatened and Endangered Species

In accordance with Section 7(a)(2) of the Endangered Species Act of 1973 (Title 16 USC, Chapter 35, Section 1536(a)2), as amended, Federally funded, constructed, permitted, or licensed projects must take into consideration impacts to Federally listed and proposed threatened or endangered species. The threatened or endangered species that may be found near the proposed project area are listed in Table 1 (Cordova 2004).

Table 1. Threatened and Endangered Species of Lake Pend Oreille

Common Name	Scientific Name	Listing Status
Gray wolf	*Canus lupus*	Endangered
Ute ladies'-tresses	*Spiranthes diluvialis*	Threatened
Bull trout	*Salvelinus confluentus*	Threatened
Westslope Cutthroat Trout	*Oncorhynchus clarki lewisi*	Species of concern
Lynx	*Lynx canadensis*	Threatened
Wolverine	*Gulo gulo luscus*	Species of concern

Bull trout are known to occur in the vicinity of the project. The gray wolf, Ute ladies'-tresses, wolverine, and lynx do not have sufficient habitat to occur within the project vicinity.

3.7 Native American, Cultural, and Historic Concerns

Regarding Native American concerns, the proposed project area is within the lands ceded by the Kalispel Tribe of Indians. The Kootenai Tribe of Idaho, the Coeur d'Alene Tribe, the Confederated Salish and Kootenai Tribes of the Flathead Reservation, and the Spokane Tribe of Indians also have cultural interests in the area. The Tribes are concerned primarily with using, preserving, and restoring fish habitat and other natural resources.

Regarding cultural/archaeological concerns, the project area was surveyed in 2004 and 2005 by a Seattle-District USACE archaeologist who determined that no prehistoric archaeological sites were present in the project area.

Regarding historic concerns, the Humbird Mill was known to operate in the area of the current Sandpoint WTP and BVG property during the late 1800s and early 1900s. The Humbird Lumber Company from Wisconsin purchased the existing Sandpoint Mill from the Ellersick brothers in 1901 (BCHBC 1991). Over its lifetime, the Mill produced approximately two billion board feet of lumber and employed about 350 men (Hidy 1962; BCHBC 1991). The exact date that

Humbird Mill ceased operations is not known, but it appears that the Great Depression caused the Mill to go out of business in the early 1930's. One account stated that all the timber, holdings, machinery shops, and miscellaneous items were sold to Weyerhaeuser at that time, and that the Humbird Company moved to Canada (BCHBC 1991). The *Sandpoint Online* magazine also indicated that the Mill liquidated all its holdings and closed down in 1931 (Sandpoint 2001). The Humbird Mill structures are currently being evaluated in accordance with the National Historic Preservation Act (36 CFR 60.4) to determine if they are eligible for the National Register of Historic Places. The determination letter will be included in the final EA.

3.8 Land Use

The land underlying the project area is currently owned by the BNSFRR, the city of Sandpoint, and private parties. The BNSFRR operates several railroad tracks that run parallel to the shore; the city of Sandpoint operates a water treatment plant; and the parcels north and south of the water treatment plant are owned by Dan Hall and the Bella Vista Group, respectively. USACE interest in the land is limited to easements allowing construction of the stabilization structure and flowage easements associated with the reservoir. It is assumed that the railroad tracks and water treatment plant will remain in the area for the foreseeable future. The Bella Vista Group is currently building condominiums on their land and has already performed bank stabilization along their section of shoreline. The private landowner has commented that he may build a dock from his property once the USACE bank stabilization project is complete.

3.9 Recreation

The recreation industry is very important for the local and county economies. Fishing, water skiing, snow skiing, hunting, camping, and bird watching are all important recreational activities in this area. The undeveloped shoreline area that will be protected by the bank stabilization project is now lightly used as a recreational area by the owners and the public.

3.10 Air Quality and Noise

The proposed project site is currently (as of this writing) in compliance with federal, state, and local air quality regulations. Air quality for the Sandpoint area is based on 2.5-micron particulate matter ($PM_{2.5}$) and meets standards set forth by the Idaho Department of Environmental Quality (IDEQ 2005a; IDEQ 2005b). The area is not designated a Class I or Class II area as defined by Section 162 of the Clean Air Act (42 USC 7472).

During construction, noise will be intermittent along the haul route and will vary at the work site depending on the type of equipment being operated. Work will be limited to daylight hours only, thus eliminating noise during the nighttime hours. All noise factors have been addressed for their effect on threatened and endangered species.

3.11 Transportation

Trucks hauling material for this project will use public highways and secondary roads as needed to travel to and from the quarry or materials pit. The number of trucks and the time between loads will allow the hauling to proceed with little or no impact on normal traffic flow during the winter season. Temporary access roads will be constructed or improved at the beginning of the project. If temporary roads are placed on the railroad right-of-way, they will be removed by the

USACE at the end of the project. Temporary crossings will be removed by the railroad to prevent unauthorized access. Elm Street, which will be used as the City truck route, will be repaired as needed to restore it to its condition prior to USACE use.

3.12 Aesthetics

The proposed project area provides a view out toward the lake, which includes a view of former Humbird Mill structures (see Photos 1 and 2, Appendix B). However, since the proposed project area is adjacent to the Sandpoint WTP (see Photo 3), it is not a location that would be sought out specifically for enjoyment of pristine (i.e., undeveloped) beauty. In addition, considerable metal debris (described in Section 3.14 below) exists on the beach and along the shoreline, reducing the visual appeal of the area. During summer pool levels, localized turbidity due to wave erosion and sloughing of unconsolidated shoreline materials is evident along the shoreline from Ponderay (north of Sandpoint) to Albeni Falls Dam.

3.13 Socio-Economic

The project area is located adjacent to the city of Sandpoint and supports the city's WTP. The area south of the WTP is being developed into condominiums by the Bella Vista Group and the area north of the WTP is privately owned by Dan Hall. Additional development in the area is probably limited to Dan Hall's property, because, as shown previously in Figure 2, the project area is bordered by water bodies on both the east and the west. Stabilization of the bank will provide no significant socio-economic impact to the area, but may enhance the value of Dan Hall's property.

3.14 Hazardous and Solid Waste

No known hazardous or solid waste is stored or evident in the immediate vicinity of the proposed project area, as discussed in the *Preliminary Assessment for Albeni Falls Dam – Sandpoint Bank Stabilization* (USACE 2004). However, considerable metal debris exists on the beach and along the shoreline (see Photos 4, 5, and 6) that may be related to former mill operations, but also includes car parts and mildly-weathered pipes. This metal debris will be removed and recycled, if possible, during the course of the project.

4 ENVIRONMENTAL EFFECTS

4.1 Hydrology and Geology

Stabilization work will be conducted during the winter months when the project area will be dry due to the low lake level. All major Best Management Practices (BMPs) will be in effect throughout the construction process to minimize dust generation, erosion, sedimentation, and stormwater runoff. What may occur over time with the reduction in sediment from the former erosion process would be the potential for the area immediately in front of the bank stabilization structure to be deepened. As wave and wind action occurs in this area after construction, there is the potential for previously-settled sediment in the shallow area to disperse into the deeper portions of Lake Pend Oreille. This sediment will disperse rapidly with the current and should pose no problem for the hydrology or the geology of this location.

4.2 Water Quality

The project design drawings show that riprap could be placed on the shoreline down to 2053 feet elevation, but will only go that low if necessary for bank stabilization. The winter pool level will be 2055; therefore, potential exists for a small amount of in-water work for rock placement. No significant water quality impacts are expected from the proposed construction activities. In accordance with section 401 of the Clean Water Act (33 USC 1251 et seq.), the USACE requested a 401 Water Quality Certification from the Idaho Department of Environmental Quality (IDEQ). The USACE received a waiver from the requirement for a water quality permit from IDEQ on July 11, 2005.

The following practices will be required during construction activities and are included in the project's *Construction Management Plan*. A USACE inspector will be on-site to ensure that contractors abide by these requirements:

- All grading and placement work will be accomplished in the dry
- Petroleum products and other toxic materials will be stored in a staging area above summer pool elevation and will be prevented from entering surface waters by adhering to spill prevention measures
- A spill response plan will be prepared as required by the USACE, and the contractor(s) working on the placement of the rock will be required to have spill kits and trained employees on-site at all times during active construction
- Refueling of equipment will be restricted to areas at least 100 feet from the lakebed
- If the contractor observes distressed or dead fish, or any obvious sign of contamination such as oil sheen or odor, all work will cease and the USACE inspector shall be notified
- Stormwater runoff will be controlled with BMPs.

4.3 Vegetation

Care will be taken to minimize impacts to vegetation along haul routes and along the shoreline where the riprap will be placed. Trees that are currently lying on the lakebed will be cut or pulled. Much of this woody debris will be incorporated into the structure for fish habitat. The remainder will be removed from the site for disposal or salvage. Disturbed areas associated with the temporary access roads will be seeded to re-establish cover and prevent erosion.

A field inspection determined that no impact to wetlands would occur because the wetlands that exist are located above the height of the stabilization structure and the hydrology should not change due to construction.

4.4 Fish

Potential impacts to fish were considered during the design phase and measures (as described in Section 4.2) will be taken to minimize construction impacts. The large woody debris that will be placed as part of the project is designed to enhance fish habitat. On a larger scale, however, any measures taken to improve fish habitat within the lake may seem inconsequential when compared with the negative impact to fish habitat, as evidenced by the precipitous decline in fish numbers in the last 50 years, caused by the building and operation of dams in the region (NPPC 2001). As long as the dams continue to operate and unnaturally adjust lake levels, the lake habitat for fish will remain compromised. For example, drawing down Lake Pend Oreille in the

winter exposes gravel and shoreline spawning areas, and is considered responsible for the steep decline in Kokanee salmon since 1960 – in fact, the fishery was closed in 2000 (NPPC 2001). In an effort to support remaining fish populations, this project has been designed to minimize any adverse effects to fish by including root wads in the stabilization structure and by planting trees.

4.5 Wildlife

Construction activities are not expected to have a substantial effect on the local bird population. No known nesting or roosting habitat will be physically altered. Prey availability in any foraging habitat in the project area would be only temporarily affected, if at all. Larger mammals do not inhabit the vicinity of the construction site, and smaller mammals will likely avoid the area.

4.6 Threatened and Endangered Species

Several threatened or endangered species that may be found within a few miles of the proposed project area are listed below in Table 2. The degree to which the proposed project may affect those species and the rationale used to make those determinations are also summarized in Table 2. A more detailed explanation of the rationale for the determinations can be found in the Biological Evaluation (BE) for the Sandpoint bank stabilization work (USACE 2005).

Table 2. Effects on Threatened and Endangered Species of Lake Pend Oreille

Common Name	Listing Status	Effect Determination	Rationale
Gray wolf	Endangered	Not likely to adversely affect	No packs in the project vicinity; no change to typical wolf habitat
Ute ladies'-tresses	Threatened	Not likely to adversely affect	None located within the project vicinity and no suitable habitat at the proposed project site
Bull trout	Threatened	Not likely to adversely affect	Work will occur in winter when the water level is low and the project area is dry; large woody debris will be built into structure
Westslope Cutthroat Trout	Species of concern	Not likely to adversely affect	Work will occur in winter when the water level is low and the project area is dry; large woody debris will be built into structure
Lynx	Threatened	No effect	No known occurrences in or near the project vicinity; no change to typical lynx habitat
Wolverine	Species of concern	No effect	No known occurrences in or near the project vicinity; no change to typical wolverine habitat

The BE for the Sandpoint project was sent to the U.S. Fish and Wildlife Service on April 26, 2005 for ESA Section 7 consultation. Concurrence with the Corps' effects determinations listed above was received on June 14, 2005.

4.7 Native American, Cultural, and Historic Concerns

Federal, state, and tribal archaeologists have reviewed the proposed work to determine if it will affect any known tribal, archaeological, or historic sites. The Corps has provided a Determination of Effects document to Idaho State Historic Preservation Officer (SHPO), and received concurrence from Idaho SHPO in a letter dated September 25, 2007. Retrieval, analysis and reporting of portable historic artifacts on surfaces within the construction zone will be

undertaken prior to construction activities. If any archaeological or human remains are encountered during construction, all work in the affected area will cease. The Corps will promptly notify the SHPO and the local Tribes, and will work with them to develop a management strategy for the properties or remains.

The Corps notified the Coeur d'Alene, Kalispel, and Kootenai Tribes, and the Confederated Salish and Kootenai Tribes about the bank stabilization project in September 2004, with an update on decreased project length provided in August 2007.

In accordance with the National Historic Preservation Act (16 USC 470), the USACE has also determined that the Humbird Mill structures are eligible for the National Register of Historic Places. The proposed work is not expected to have an adverse effect on the structures. On the contrary, the stabilization work is expected to benefit the Humbird Mill structures by preventing further erosion or catastrophic bank failure that could damage the structures.

4.8 Land Use

The construction activities will not change the land use designations on the property. Since USACE interests are limited to flowage easements and easements for construction of the stabilization structure, the underlying owners retain the rights to use the property consistent with local laws and regulations. This shoreline stabilization might inadvertently enhance the value of the private land because the stabilized areas could now support construction that otherwise might not have occurred. As mentioned in Section 3.8 above, the private land owner (Dan Hall) may develop his property and build a dock that would extend from the USACE project. The types of permits and agreements necessary to allow construction of the dock have not yet been addressed.

4.9 Recreation

There will be no negative impact on recreation primarily due to the fact that construction will occur during the winter when lake levels are low. Recreation may benefit from the project somewhat after construction due to reduction of sediment entering the water, stabilization of the shoreline, and placement of large woody debris that may enhance fish habitat.

4.10 Air Quality and Noise

BMPs will be used to minimize impacts to air quality and noise levels. For example, maintenance of unpaved haul roads will occur during the winter months to minimize fugitive dust, and work will only occur in the daytime to avoid nighttime noise disturbances. During construction, there will be a temporary and localized reduction in air quality due to emissions from equipment used during hauling, downed-tree removal, access road development, and general construction of the bank stabilization structure. However, since these effects will be temporary and localized, and will occur only during daylight hours, the impacts should not be significant.

4.11 Transportation

Construction vehicles may interrupt local traffic when entering or leaving the construction area and while on the city truck route. Interruptions are expected to be minimal. Any damages that occur to the city truck route (Elm Street), or to existing improved roads within the railroad right-

of-way, as a result of the USACE work, will be repaired at USACE expense. Repairs to the roads will match the road conditions that existed prior to the start of USACE work.

4.12 Aesthetics

During construction there will be some minor disturbance from heavy equipment. After construction, the shoreline will look different because the riprap bank stabilization structure will have replaced fallen trees. The new structure will look less natural initially, but in time should develop foliage from plantings and other vegetation that will allow it to blend in more easily with the surroundings. In addition, the structure will prevent further loss of trees and will ensure the stability of the existing habitat. Those who visit the area for recreation will still have clear views of the lake and the Humbird Mill structures.

4.13 Socio-Economic

Construction activities associated with this project will not adversely impact the two major sectors of the economy, which are tourism and recreation. The proposed project should actually have a positive economic effect because contract equipment will be hired locally to perform the work, materials will be purchased from local quarries and other local suppliers, and services and facilities in the greater Sandpoint area will be used in support of the effort. Also, the work will be done during the winter months, which is normally the slow period for the construction industry.

4.14 Hazardous and Solid Waste

No hazardous waste is expected to be generated during the proposed stabilization work. Any solid waste will be removed from the site and disposed or recycled as appropriate. The proposed stabilization work may provide safety and aesthetic benefits in the area by removing the metal debris that currently exists on the beach and along the shoreline (see Appendix B photos 4-6).

5 UNAVOIDABLE ADVERSE EFFECTS

Unavoidable adverse effects of the proposed project include: 1) disruption of local and wintertime tourist traffic by construction vehicles; 2) disruption to local birds and wildlife in the area due to noise of construction activities; 3) quarrying to obtain riprap rocks; and 4) the loss of approximately 0.65 acres of mud flat habitat (Brengle 2005a).

The latter two will be the most significant environmental impacts of the completed project. The practice of quarrying requires invasive and irreversible excavation of rocky areas to obtain building stones. Because the practice can be so destructive, the USACE will only use permitted quarries to acquire the riprap. The Idaho Department of Lands issues permits to those quarries that have sound business management practices.

Regarding habitat loss, approximately 0.65 acres of mudflat habitat will be lost when the stabilization structure is built, assuming the structure is 30 feet wide and 950 feet long (Brengle 2005a). This mudflat habitat loss will be partially offset by the new structure though, because the new structure will prevent the long-term erosion loss of existing riparian, wetland, and understory habitat. The stabilized bank will also help retain potential eagle perch trees and other vegetation that may have otherwise continued to fall or erode into the lake.

To minimize the occurrence of adverse environmental impacts during and after completion of the proposed project, the following measures will be implemented:

- A project design will be used that incorporates fish habitat improvement during the construction phase, such as through planting shrubs, planting trees if needed, and placing root wads and large trees within the riprap to provide more complexity of habitat for fish
- Monitoring for wintering bald eagles will occur during construction to ensure that no disturbance occurs
- Best management practices (such as dust suppression measures) will be used to ensure that no unnecessary damage to the environment occurs
- Work will only occur during the winter, early January through late April 2008, when the work area is expected to be dry and frozen.

6 CUMULATIVE EFFECTS

Cumulative effects are environmental effects that may occur when the results of state, tribal, local, or private actions in the project area are added to other past, present, and reasonably foreseeable future actions. In other words, the goal is to predict what additional environmental effects may occur when the effects of this project are analyzed in combination with the actions of others.

Riprap along shorelines has some negative ecological effects associated with it. The Pend Oreille River has approximately 115 miles of shoreline (USACE 1981). About 10% of the shoreline consists of boulders and riprap (IDEQ 2001). The Corps placed riprap along 4475 feet of shoreline at Priest River Wildlife Management Area in 2006-07, and plans to stabilize another historic site to protect wildlife habitat and historic properties. The Priest River site involved about 3,675 feet of a combination of riprap and biological erosion control methods including plantings and biologs. The project in the foreseeable future is Hoodoo Creek (site 10-BR-20), which requires about 558 feet of riprap for bank protection. The recently completed, current proposed project, and future anticipated project amount to approximately 1% of the total shoreline along the Pend Oreille River and Lake.

Cumulative hydrological impacts of using riprap for bank protection along the Pend Oreille River could include the following: (1) scour and transporting of bank material cannot occur naturally in the areas of riprap, (2) lateral channel migration will be inhibited, (3) habitat complexity will decrease along armored banks, and (4) increased velocity past riprap can cause scour elsewhere as stream energy is transferred downstream (Crandall et al. 1984). Riprap also affects biological community assemblages. At least one study found that smaller size classes of salmonids decrease in number in riprap habitat, but yearling and larger sizes increase in number (Knudsen and Dilley 1987); however, the authors stated that the effects are much more pronounced in small streams than in large rivers. Schmetterling et al. (2001) acknowledge the paradox of trying to maintain natural fluvial processes at the same time as protecting public and private infrastructure from those same processes.

Past and ongoing actions in the area include BVG's stabilization of their section of shoreline south of the WTP in anticipation of building luxury condominiums. BVG has completed

building the condominiums at the south end of their property and is continuing north toward the Sandpoint WTP. It is anticipated that condominium construction and the Sandpoint bank stabilization work could occur at the same time. The cumulative effects could include increased vehicular traffic during construction, increased noise during construction hours that could disturb residents and wildlife, and increased rates of road degradation in the area.

Reasonably foreseeable future actions that may occur in the vicinity of the project area include development of a pier on Dan Hall's property and development of the "Sand Creek Byway," a new segment of highway U.S. 95 designed to bypass Sandpoint. Should Dan Hall decide to build a pier off of his property, such action may lead to additional private boat traffic, fishing, and swimming that could disturb the currently undeveloped habitat. The highway bypass project is not related to the Sandpoint bank stabilization work, but the two projects together could increase traffic congestion and the rate of road degradation in Sandpoint if they were to occur at the same time. However, since Dan Hall's intentions and the construction schedule for the bypass have not been confirmed, the cumulative effects of these potential future actions can only be estimated.

The acute cumulative impacts from the stabilization work, such as increased noise, emissions, and traffic disruptions that may occur if other local construction is done simultaneously are expected to be temporary and insignificant. The Corps is attempting to provide long-term potential benefits gained from bank stabilization, such as retention of riparian habitat and stabilization of the WTP and BNSFRR property. Additionally, cumulative impacts from increasing the total length of armored shoreline will be minimized by incorporating large woody debris into the stabilization structure in order to create more complexity of fish habitat.

7 TREATY RIGHTS

Treaty rights have been established for the Kalispel Tribe of Indians, the Kootenai Tribe of Idaho, the Coeur d'Alene Tribe, the Confederated Salish and Kootenai Tribes of the Flathead Reservation, and the Spokane Tribe of Indians. The treaty rights are concerned primarily with using, preserving, and restoring fish habitat and resources. The proposed project will not decrease any opportunity for the Tribes to exercise these rights.

8 ENVIRONMENTAL COMPLIANCE

8.1 National Environmental Policy Act

This draft EA has been prepared in accordance with the National Environmental Policy Act of 1969 (42 USC 4321 et seq.), which requires federal agencies to discuss the potential environmental impacts of their projects and to solicit public comment. This EA discusses the need for the bank stabilization project, the proposed action and alternatives considered, the environmental effects of the project, and the agencies and persons consulted. Any comments or concerns received on the draft EA will be addressed in the final EA.

8.2 Endangered Species Act

In accordance with Section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 USC 1531-1544), federally funded, constructed, permitted, or licensed projects must take into

consideration impacts to federally listed or proposed threatened or endangered species. A Biological Evaluation was prepared in April 2005 with coordination from the State of Idaho, federal, and local agencies. The BE was sent to the U.S. Fish and Wildlife Service on April 26, 2005, and the USACE received a concurrence letter dated June 14, 2005.

8.3 Clean Water Act

In accordance with Section 404(b)(1) of the Clean Water Act (33 USC 1344), an evaluation of impacts is required for work involving discharge of fill material into the waters of the United States. Since minimal in-water work will occur, and a portion of the finished structure will become wet during summer lake conditions, a 404(b)(1) evaluation was prepared for this project. The evaluation was sent to the IDEQ on May 30, 2005 for their concurrence on these water quality issues. The USACE has received a waiver from IDEQ for the requirement of a 401 Water Quality Certification. This work is being performed under the Nationwide Permit 13, which covers bank stabilization projects.

8.4 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act of 1940 (16 USC 668) prohibits disturbance of eagles that could lead to injury to an eagle, a decrease in its productivity or causing nest abandonment, by substantially interfering with breeding, feeding or sheltering behavior. Golden eagles are occasionally seen in the Sandpoint area, but these are considered transients as there are no known nesting sites in the area. Bald eagles are known to nest, winter over, and feed in the area near the project site. Currently, there is only one known nest within two miles of the project site. Due to the concern for effects on wintering bald eagles, the area near the construction work will be monitored for wintering eagles on a daily basis throughout construction. Monitoring will be accomplished by visual inspection with binoculars. No work will be conducted if it appears that there will be a disturbance to eagles. The project is not likely to disturb bald or golden eagles, as they are likely accustomed to human disturbance in the vicinity of the construction site.

8.5 Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 USC 661-667) requires that wildlife conservation efforts receive equal consideration and coordination with other features of water resource development projects. This goal is accomplished through USACE funding of U.S. Fish and Wildlife Service for an independent assessment of the proposed action. This assessment evaluates the likely impacts of the proposed action and provides the basis for recommendations for avoiding or minimizing such impacts. A Fish and Wildlife Coordination Act Report is not required for maintenance (stabilization) work.

8.6 National Historic Preservation Act

The National Historic Preservation Act (16 USC 470) requires that a proposed project's effects on archaeological sites, buildings, structures, or objects included or eligible for the National Register of Historic Places be evaluated. The Advisory Council on Historic Preservation (ACHP) and affected State and/or Tribal Historic Preservation Officers (S/THPO) must be afforded the opportunity to comment on the proposed action. The agency performing the action must also consult with affected Indian tribes. The USACE is consulting with the local Tribes and any letter(s) from the Tribes regarding this work will be included in the final EA.

8.7 Clean Air Act

The Clean Air Act (42 USC 7401 et seq) requires states to develop State Implementation Plans (SIP), which document strategies to reduce or eliminate the severity and number of violations of National Ambient Air Quality Standards (NAAQS), with the goal of attaining the NAAQS. The act also requires federal actions to conform to the appropriate SIP. An action that conforms with a SIP is defined as an action that will not: (1) cause or contribute to any new violation of any standard in any area; (2) increase the frequency or severity of any existing violation of any standard in any area; or (3) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area. The U.S. Army Corps of Engineers has estimated that emissions associated with this project will not exceed EPA's *de minimis* threshold levels of 100 tons/year for carbon monoxide and 50 tons/year for ozone (40 CFR 93.153(b)).

8.8 Executive Order 11988, Floodplain Management (24 May 1977)

Executive Order (EO) 11988 requires federal agencies to avoid, to the extent possible, 1) the long-term and short-term adverse impacts associated with the occupancy of a floodplain, and 2) the direct and indirect support of floodplain development where there is a practicable alternative. In accomplishing this objective, Section 1 of the EO states "each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by flood plains..."

The Sandpoint bank stabilization work is not expected to encourage further development beyond what already exists in this somewhat modified floodplain. Its only purpose is to protect valuable infrastructure that serves the local population with the Water Treatment Plant, and provides means for interstate commerce via the BNSFRR line.

8.9 Executive Order 12898, Environmental Justice

Executive Order 12898 directs every federal agency to identify and address disproportionately high and adverse human health or environmental effects of agency programs and activities on minority and low-income populations. The potentially affected community, Sandpoint, does not have a substantial minority population but does have a low-income population. A query of the 2000 Census for Sandpoint indicated that Sandpoint was 96% Caucasian. Individual and family poverty rates were approximately 18% and 15%, respectively (Census 2000).

The project does not involve siting a facility that would discharge pollutants that could affect human or environmental health. Maintenance of this structure will not negatively affect property values in the area or socially stigmatize local residents or businesses in any way. Construction activities are also expected not to interfere with local Native American treaty rights, fishing, or fishery resources.

Since no adverse health or environmental effects are anticipated to result from the project, the USACE has determined that no disproportional impacts to minority or low-income populations will occur.

9 COORDINATION

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

- USACE, Albeni Falls Dam
- U.S. Fish and Wildlife Service (USFWS)
- Idaho Department of Fish and Game (IDFG)
- Idaho Department of Lands (IDL)
- Idaho Department of Environmental Quality (IDEQ)
- Cultural Resource Management Cooperating Group
- Idaho State Historic Preservation Office
- Coeur d'Alene Tribe
- Kalispel Tribe
- Kootenai Tribe of Idaho
- Confederated Salish and Kootenai Tribes

The following environmental coordination items are anticipated to be included in the final EA:

- Comments on the draft environmental assessment, and Corps' responses
- The waiver for the 401 Water Quality Certification from IDEQ
- Concurrence with Corps' findings from the USFWS
- Concurrence with Corps' findings from the Idaho SHPO
- Tribal letter(s) regarding the project

10 CONCLUSION

Based on the information presented above, this federal project will not significantly affect the quality of the human or natural environment, and therefore does not require preparation of an environmental impact statement.

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Appendix A – Photos

Photo 1. Old Humbird Mill supports (assumed), looking south

Photo 2. Old Humbird Mill supports (assumed), looking north

Photo 3. Sandpoint Water Treatment Plant (north end)

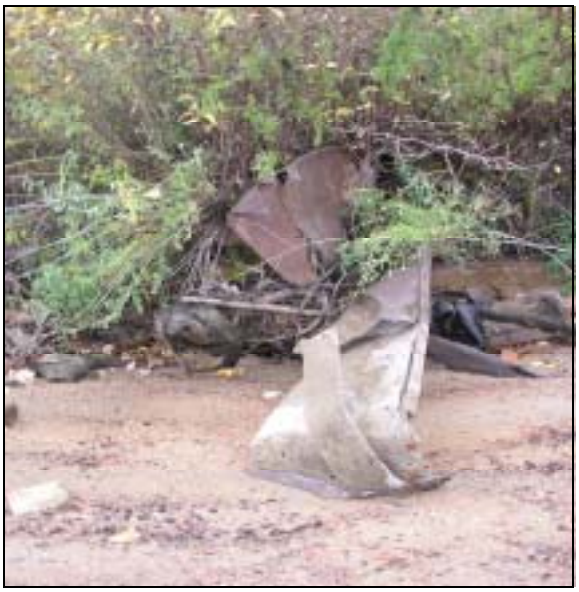

Photo 4. Miscellaneous metal debris along the bank

Photo 5. Old car parts on the beach

Photo 6. Old pipes on the beach

Appendix B – Project Drawings

Drawings are available as a separate document.

Appendix C – Draft Finding of No Significant Impact

CENWS-PM-PL-ER October 19, 2007

DRAFT FINDING OF NO SIGNIFICANT IMPACT

Sandpoint Bank Stabilization Project
Sandpoint, Bonner County, Idaho

1. Proposed Action. The proposed action is to build a riprap structure along approximately 950 feet of shoreline on the northwestern shore of Lake Pend Oreille to stabilize the bank and prevent further erosion near the Sandpoint WTP and the BNSFRR property. The time frame available for construction is estimated to be mid-January through late April 2008. The proposed action area consists of a riparian shoreline that varies in width from approximately 164 feet to 328 feet at the widest point. The eastern portion borders Lake Pend Oreille and the western portion borders the BNSFRR property and the Sandpoint WTP. This area contains various species of deciduous and coniferous trees with thick undergrowth, and bald eagles have been noted in some of the emergent trees in this area. Bank stabilization material will consist of class IV riprap, spalls (rock chips), 4-inch minus crushed stone, and granular fill. Approximately 10,000 tons of class IV riprap and 1,000 tons of 4-inch minus crushed stone will be used. Filter fabric will be placed along the shoreline next to the bank to minimize the amount of fine sediment that enters the lake. All trees that have fallen into the lake will be removed and coniferous trees, which are resistant to breakdown, will be placed into the bank stabilization project to provide fish habitat. No permanent maintenance road will be constructed as part of the proposed action.

2. Summary of Impacts and Compliance. Impacts of the proposed work will be minor and temporary. This project will fully comply with the Endangered Species Act; a biological evaluation was prepared and transmitted to the U.S. Fish and Wildlife Service dated April 26, 2005 with a determination of "not likely to adversely affect bald eagles." This project will also fully comply with Section 401 and 404 of the Clean Water Act, and Idaho Department of Environmental Quality has waived the requirement for a 401 Certification. The project will fully comply with the National Historic Preservation Act, as shown by a letter sent to the Idaho State Historic Preservation Office (SHPO), and their concurrence with Corps findings.

3. Finding. Based on the attached environmental documentation, coordination and analysis conducted by the Corps environmental staff, I have determined that the proposed action will not result in significant adverse environmental impacts. The proposed action is not a major federal action significantly affecting the quality of the human environment, and therefore does not require preparation of an environmental impact statement.

_____ _____

Date Michael McCormick
Colonel, Corps of Engineers
District Commander