

**Bonneville Power Administration
Rebuild of the Libby (FEC) to Troy Section of BPA's
Libby to Bonners Ferry 115-kilovolt Transmission Line Project
Record of Decision
July 2008**

Decision

The Bonneville Power Administration (BPA) has decided to implement the Proposed Action with the Kootenai River Crossing realignment option that was identified in the Rebuild of the Libby (FEC) to Troy Section of BPA's Libby to Bonners Ferry 115-kilovolt Transmission Line Project Final Environmental Impact Statement (DOE/EIS-0379, May 2008). To implement this alternative, BPA will rebuild the 17-mile-long Libby-Troy section of the existing transmission line at the same voltage (115 kilovolt (kV)) with the same number of circuits (one). BPA will rebuild this section of line using a combination of wood and steel H-frame and single pole structures. BPA will also acquire additional transmission line corridor width through new easements or permitted areas in some sections to bring the corridor up to BPA's minimum width standards for 115-kV transmission line operation. Helicopters will be used for constructing the rebuilt line, except in the Big Horn Terrace and Pipe Creek residential areas, where all construction will occur from the ground. The Kootenai River Crossing realignment option will move the Kootenai River line crossing about 0.75 mile east of the existing crossing and require acquisition of new easements and permitted areas.

Background

Historically, BPA has served electrical loads in northwestern Montana and northern Idaho from transmission facilities that extend from Libby Dam east of Libby, Montana to Bonners Ferry Substation in Idaho, and on to Albeni Falls Dam near the Idaho-Washington border. The existing Libby-Troy line is an essential part of the larger 115-kV transmission line loop in the area that provides electrical service to Libby, Bonners Ferry, Sandpoint and many smaller communities. This existing 50-year-old line runs west from Flathead Electric Cooperative's (FEC) Libby Substation in the town of Libby, Montana, to BPA's Troy Substation, east of Troy, Montana. From Libby Substation to the end of Kootenai River Road on the west side of the Big Horn Terrace area, the existing line generally follows the alignment of Kootenai River Road. The line then continues along the north side of the Kootenai River, crossing it just east of Kootenai Falls; follows new Highway 2 for a short distance; and climbs to a ridge above the historic Highway 2 before proceeding to Troy Substation.

The Libby-Troy line originally belonged to Pacific Power and Light and was purchased by FEC in November 1998. This line was the only section of the 115-kV transmission loop in the area that BPA did not own. In 2001, BPA acquired this section from FEC.

The condition of the Libby-Troy line has been steadily deteriorating over the years. The transmission line is supported by wooden structures, and many of these structures have passed their ability to withstand required structural loads, including stresses caused by snow and ice build-up during winter. Most of the cross-arms that carry the line on the structures are rotting

and metal parts on the line, such as conductor fittings, are highly corroded. As a result, these fittings have begun to fail, which can and has caused severe problems. For example, in 2003, one of the conductor fittings along the line failed, allowing the conductor (the wire that carries the electric current) to fall to the ground and start a fire. These problems have seriously compromised the integrity of the line, and BPA is concerned that the line threatens the reliability of the regional system.

The Libby-Troy transmission line provides backup service (redundant load service) to the area if another transmission line is out of service. Without the Libby-Troy line, this level of service would be reduced and the area could lose power if another line failed. BPA has taken steps to prevent the line from failing in the near term, but these measures cannot solve the problem for the long term. In addition, electrical load for the communities served by the Libby Dam-Albeni Falls Dam transmission system is projected to grow at an average of 1 percent per year. Over time this load growth will increasingly strain the existing electrical system.

BPA has a statutory obligation to ensure that its transmission system has sufficient capability to serve its customers while maintaining a system that is safe and reliable. The Federal Columbia River Transmission Act directs BPA to construct improvements, additions, and replacements to its transmission system that are necessary to maintain electrical stability and reliability (16 U.S.C. § 838b(d)). This Act also directs BPA to construct transmission system improvements, additions, and replacements where necessary to provide service to BPA's customers (§ 838b(b)). Rebuilding the Libby-Troy line section of the existing transmission line is needed to ensure that BPA can continue to provide stable and reliable transmission service in northwestern Montana.

Because sections of the transmission line cross land managed by the United States Forest Service (USFS), the Kootenai National Forest (NF) must decide whether to grant BPA a permit for additional corridor areas across the NF beyond what has been granted under the current Special Use Permit for the existing transmission line. The Kootenai NF also must decide whether Forest Plan amendments are necessary to meet the specific purpose and need for this project, and make a determination whether those amendments are significant under the National Forest Management Act. The Kootenai NF is a cooperating agency under the National Environmental Policy Act (NEPA) for this EIS, and will prepare a separate Record of Decision (ROD) that will document its decisions concerning the project. Montana Department of Environmental Quality (DEQ) is also a cooperating agency and has assisted BPA in identifying applicable state substantive environmental protection standards administered by various state agencies.¹

Alternatives Considered

BPA considered the Proposed Action of rebuilding the line as a 115-kV single-circuit line, an alternative (Alternative 1) of rebuilding the line as a 230-kV double-circuit line, and the No Action Alternative. In addition, BPA considered three short realignment options at various locations along the existing transmission line. BPA identified the Proposed Action with the

¹ Montana DEQ has recently issued its Final Conclusions and Determination document that it prepared for BPA's rebuild project. BPA has reviewed and considered this DEQ document in making its decision concerning the rebuild project.

Kootenai River Crossing realignment option as its Agency Preferred Alternative in both the Draft and Final EISs for the proposed project. This ROD documents BPA's decision to adopt the Proposed Action with the Kootenai River Crossing realignment option.

Proposed Action

The Proposed Action involves rebuilding the existing 17-mile-long Libby-Troy section of the 115-kV Libby-Bonnars Ferry transmission line on its existing right-of-way corridor at the same voltage (115-kV), with the same number of circuits (one). A combination of wood and steel H-frame and single wood pole and steel pole structures will be used. A total of 171 new structures will be installed, with structures ranging from 60 to 105 feet tall. Approximately 14 miles of existing access roads for the transmission line will be improved and about 4.5 miles of new access roads will be constructed. Although the existing corridor will be followed, BPA will acquire additional transmission line corridor width through new right-of-way easements or permitted areas along some segments of the corridor to bring the corridor up to BPA's minimum standards for 115-kV transmission line operation.

In areas where the line is accessible from the ground, such as near residential areas and along local area roads, removal of existing structures and installation of new structures will be undertaken by ground crews working with trucks, cranes, and other construction equipment. For inaccessible portions of the line, such as the portions along historic Highway 2 and some areas along Sheep Range Road, these construction activities will be conducted by helicopter. When installing new conductor once new structures are in place, BPA's normal practice is to string the conductor by using a helicopter. For the Proposed Action, BPA will follow this practice except for in the Big Horn Terrace (existing structures 19/4 to 21/5) and Pipe Creek (existing structures 17/4 to 18/11) residential areas. In these areas, BPA will instead install the conductor from the ground because of concerns local landowners in these areas have raised regarding use of helicopters to install conductor in populated areas.

As described in the EIS, BPA will continue its routine inspection patrols of the line (which are conducted separately and independently from the proposed rebuild project) by helicopter, except in the Big Horn Terrace and Pipe Creek residential areas. These areas are being treated as detours for helicopter inspections, and will instead be inspected from the ground.

Alternative 1

Under Alternative 1, BPA would rebuild the Libby-Troy transmission line on its existing right-of-way corridor as a 230-kV double-circuit transmission line for its full 17-mile length. Additional transmission line right-of-way easements and permitted areas would be acquired along most of the right-of-way to accommodate a 230-kV transmission line corridor of 100 feet. All structures would be single tubular steel poles. A total of 120 new structures would be installed, with structures ranging from 90 to 110 feet tall. Both sides of each structure would be strung with conductors and connected to operate as a 115-kV single-circuit line until the second circuit was needed. Approximately 14 miles of existing access roads for the transmission line would be improved and about 4.3 miles of new access roads would be constructed. Use of helicopters would be the same as under the Proposed Action.

No Action Alternative

Under the No Action Alternative, BPA would not rebuild the Libby-Troy transmission line. The existing line would remain in place in its current location. BPA would continue to attempt to maintain the existing line as it further deteriorates. Current impacts from ongoing maintenance and emergency repair activities would continue. Transmission line failure could result, and cause fires and local power outages.

Short Realignment Options

BPA also considered the following three potential realignment options that could be implemented under either the Proposed Action or Alternative 1. For each realignment option, a new 80-foot-wide corridor would be required for a 115-kV rebuild, and a new 100-foot-wide corridor would be required for a 230-kV rebuild.

- **Pipe Creek Realignment Option.** This realignment option would relocate about 0.8 mile of the existing line in the vicinity of Pipe Creek from primarily private lands to a new approximately 0.8-mile right-of-way on both private and public lands. This new transmission line right-of-way would be located northeast of the existing right-of-way, away from most residences in the Pipe Creek area. Four existing structures would be removed from the present right-of-way under this realignment option, but the existing structures along Kootenai River Road would remain since they also support an existing electrical distribution line that serves nearby residences. Seven new structures would be installed in the new right-of-way under a 115-kV rebuild, and six new structures would be installed under a 230-kV rebuild. Approximately 0.3 mile of existing access roads would be improved, and about 0.5 mile of new access roads would be constructed.
- **Quartz Creek Realignment Option.** This realignment option would relocate about 1.2 miles of the existing line in the vicinity of Quartz Creek from primarily private lands to a new approximately 2.9-mile right-of-way on primarily public lands. This new transmission line right-of-way would be located northeast of the existing right-of-way, away from the Big Horn Terrace residential area near Quartz Creek. Nineteen existing structures would be removed from the present right-of-way under this realignment option. Twenty-two new structures would be installed in the new right-of-way under a 115-kV rebuild and 18 new structures would be installed under a 230-kV rebuild. Approximately 2.2 miles of existing access roads would be improved, and about 1.6 miles of new access roads would be constructed.
- **Kootenai River Crossing Realignment Option.** This realignment option will relocate about 0.9 mile of the existing line where it crosses the Kootenai River directly above Kootenai Falls from Kootenai NF and Lincoln County lands to a new approximately 0.9-mile right-of-way on primarily Kootenai NF and Lincoln County lands. This new transmission line right-of-way will be located southeast of the existing right-of-way, which will aid in minimizing visual, cultural, and fish and wildlife impacts in the Kootenai Falls area. Nine existing structures will be removed from the present right-of-way under this realignment option. Eight new structures will be installed in the new right-of-way under the 115-kV rebuild that will be implemented, which is the same number of structures that would have been installed under a 230-kV rebuild.

Approximately 0.06 mile of existing access roads will be improved, and about 0.2 mile of new access roads will be constructed.

Environmentally Preferable Alternative

The Council on Environmental Quality (CEQ) NEPA regulations require that an agency's ROD identify which alternative(s) from its EIS for the proposed action is considered to be the environmentally preferable alternative. *See* 40 CFR 1505.2(b). In most instances, the no action alternative is usually identified as the environmentally preferable alternative because the proposed action being contemplated represents a "new" action – for example, developing a new facility where none existed before, or undertaking a new activity not previously conducted by the agency – and not taking that action would avoid the potential effects to the environment from construction, operation, and other project-related activities.

In the case of the Libby-Troy transmission line, however, the Proposed Action is to rebuild an existing facility that is rapidly deteriorating. As discussed in the Final EIS, the No Action Alternative in this case has the potential for several environmental impacts due to the line's deteriorated condition. Because the line would not be rebuilt under the No Action Alternative, ongoing maintenance and emergency repair activities would need to occur frequently. While some of the maintenance activities could be scheduled in advance and designed to minimize or avoid potential environmental impacts, emergency repair activities, by their very nature, generally could not. This is particularly true in the case of the downed lines or structures that would be significantly more likely to occur under the No Action Alternative. Downed lines and structures can present serious and significant hazards to public safety in the local area, cause wildfires, and jeopardize transmission system reliability if not dealt with and corrected immediately.

Depending on their location and timing, emergency repair activities could potentially result in significant impacts to the environment through destruction of vegetation and wetlands, disturbance of wildlife during sensitive periods, compaction of previously undisturbed soils, increased uncontrolled erosion, increased uncontrolled dust and other air emissions, and in-stream work affecting water quality and fish as well as other aquatic species. Negative socioeconomic impacts could also occur from reduced reliability leading to higher energy costs and power outages.

Because of these potential impacts associated with the No Action Alternative, BPA has not identified this alternative as the environmentally preferable alternative. Instead, the Proposed Action with none of the realignment options is considered, on balance, to be the environmentally preferable alternative because it would involve replacing an existing facility largely within its existing right-of-way. Although impacts would occur from construction activities, such as widening the right-of-way in some locations, improving existing access roads and constructing new access roads, many of these impacts would be localized and temporary. In the long-term, the rebuild would be expected to minimize the on-going and often unplanned repair and maintenance activities and their associated environmental impacts described above. The Proposed Action also is considered to be environmentally preferable over Alternative 1 because of the lesser degree of impacts, mainly from a narrower right-of-way width, associated with the Proposed Action.

Remaining on the existing transmission line corridor for each of the realignment options also is considered to be environmentally preferable. For the Pipe Creek and Quartz Creek realignment options, various levels of impacts would occur mainly from new transmission corridor and road clearing in areas that are currently largely undisturbed. Primary impacts associated with these realignments involve land use, old growth trees, other vegetation, wildlife, visual resources, and cultural resources. Rebuilding the transmission line in the existing corridor in these areas, on the other hand, would have impacts primarily on the human environment through visual, noise, public health and safety, transportation, and air quality impacts. However, because a rebuild in the existing corridor would replace an existing transmission facility with a similar facility, a significant change from currently existing conditions and impacts from such a rebuild would not be expected. On balance and overall, the potential impacts from the Pipe Creek and Quartz Creek realignment options would be greater than potential impacts from rebuilding in the existing corridor in this area.

As with the Pipe Creek and Quartz Creek realignment options, impacts from implementing the Kootenai River Crossing realignment option will occur mainly from new transmission corridor and road clearing. Although the Kootenai River Crossing realignment option is not as undisturbed as the other two realignment options, trees and other vegetation will need to be cleared, and a new line crossing of the Kootenai River will be put in place. This realignment will have the beneficial effect of removing the line crossing from the viewshed of the Kootenai Falls area, which is a culturally significant area. This realignment also will avoid the need for construction of a new replacement bridge over China Creek to allow access to a portion of the existing line west of China Creek and north of the Kootenai River. However, this realignment would have adverse impacts including impacts to vegetation, wildlife, amphibians, and visual resources.

On the other hand, rebuilding the transmission line in the existing corridor in the Kootenai River Crossing area would have impacts on wildlife, visual resources, recreation resources, cultural resources, and (from the replacement China Creek bridge) fish and riparian habitat. However, a rebuild in the existing corridor would simply replace an existing transmission facility with a similar facility, and a significant change from currently existing visual and cultural impacts from such a rebuild would not be expected. While there would be increased impacts to fish and riparian habitat from rebuilding in the existing corridor, on balance and overall, the potential impacts from the Kootenai River Crossing realignment option would be greater than potential impacts from rebuilding in the existing corridor in this area.

Overall, the Proposed Action is environmentally preferable; however, the Kootenai River Crossing realignment option is only environmentally preferable with respect to recreation, visual and cultural resources (near Kootenai Falls), wildlife (in Bear Management Unit 10), and fish and riparian habitat (near China Creek). It is not environmentally preferable with respect to visual resources (along Highway 2), wildlife (bald eagle and migratory birds), and amphibians.

Public Involvement

Early in the development of the EIS, BPA solicited input from the public (federal, state and local agencies, Indian tribes with interest in the area, individuals along the project route, and interest groups) to help determine what issues and alternatives should be studied in the EIS. In

May 2005, BPA published a Notice of Intent to prepare an EIS in the Federal Register (70 FR 23857) on its proposal to rebuild the 17-mile-long Libby-Troy section. The formal public scoping period for the EIS occurred between May 19, 2005 and October 30, 2005. BPA mailed letters on May 2 and 3, 2005 and September 6, 2005 to about 300 potentially interested and affected persons, agencies, tribes and organizations. These letters provided information about the proposed project, gave notice of the scoping period and BPA's intent to prepare an EIS, and requested public comments on issues to be addressed in the EIS.

BPA also hosted four public meetings to present information and to seek comments. Two scoping meetings, conducted in an open house format to encourage public participation, were held in May 2005 in Libby; 20 people attended. An additional scoping meeting was held in September 2005 in Libby to hear comments from landowners in the Big Horn Terrace subdivision area. These landowners were inadvertently left off the original mailing list and did not receive the original notification of the first two scoping meetings. Thirty people attended this meeting. Due to considerable public interest, BPA also held an informational meeting regarding electric and magnetic fields (EMF) in November 2005 in Libby. This meeting was attended by 42 people.

BPA received about 387 scoping comments on the proposed project. A summary of the scoping comments received was prepared and sent in a letter dated January 9, 2006 to BPA's project mailing list. This mailing list includes property owners, interested parties, and tribes. All of the comments received were posted on the BPA Web site, and were used to help develop the Draft EIS.

In July 2007, BPA published a Notice of Availability of the Draft EIS in the Federal Register (72 FR 39808 and 39809). BPA sent notices that the Draft EIS was available for review to about 200 potentially interested or affected governments, agencies, tribes, organizations, and individuals; about 70 Draft EISs were distributed. The Draft EIS was also posted on the BPA Web site. BPA set a 45-day public review and comment period for the Draft EIS (ending September 4, 2007), but accepted comments submitted after the comment due date. BPA also held a public meeting on August 15, 2007 in Libby, Montana to explain the project and Draft EIS and to accept comments; 11 people attended.

BPA received 21 comment letters on the Draft EIS. These letters, along with comments received at the Draft EIS public meeting, comprised about 235 comments on the Draft EIS. These comments were addressed in the Final EIS, which was made available for public review and sent to interested parties in late May 2008. In early June 2008, BPA published a Notice of Availability of the Final EIS in the Federal Register (73 FR 32332).

Comments Received After Final EIS Issuance

When BPA distributed the Final EIS, the agency requested that any comments from the public on the Final EIS be submitted to BPA within three weeks of Final EIS distribution to ensure consideration in the decision making process for the proposed rebuild project and this ROD. Although NEPA does not require a comment period for a Final EIS or written responses to any comments received, BPA chose to provide the opportunity given the local interest in the project. This section of the ROD discusses and addresses the comments received by BPA on the Final

EIS.² These comments can be viewed on-line at: <http://www.bpa.gov/applications/publiccomments/CommentList.aspx?ID=37>. Because the comments raise issues already addressed in the Final EIS and responses are limited to further clarification of these issues, the comments do not necessitate the preparation of a supplemental EIS.

Comments Received During the Final EIS Comment Period

BPA received three comment letters on the Final EIS during the three-week comment period. One of these letters was from an individual associated with FEC, and two were from individuals who own property in the Big Horn Terrace area.

The letter from FEC stated that the Final EIS adequately addressed alternatives for the proposed rebuild and considered and responded to comments on the Draft EIS. These views of FEC concerning the Final EIS are noted. FEC also expressed support for the Proposed Action with the Kootenai River Crossing realignment option, and stated that it looks forward to working with BPA on the proposed rebuild project. BPA intends to coordinate closely with FEC as the agency moves forward with the rebuild of the Libby-Troy transmission line.

The letter from one of the property owners, Jerry Gould, suggested having the rebuilt line follow a new alignment that would cross from the north side of the Kootenai River to the south side at a point east of the Big Horn Terrace area and then continue on the south side of the river west to Troy Substation, thereby moving the line out of the Big Horn Terrace area. Mr. Gould provided several reasons supporting why he believes the line should be moved as he suggested, and noted how his proposal would alleviate many of the concerns he saw raised in comments on the Draft EIS.

In the early planning stages for the proposed rebuild project, BPA did consider moving the line as suggested by Mr. Gould. As indicated by Mr. Gould's letter, the EIS identifies this suggestion as an alternative that was considered by BPA but eliminated from detailed study in Section 2.6 of the EIS. The EIS explains that there is inadequate room to accommodate the railroad, Highway 2, and a transmission line in the area on the south side of the river directly west of the suggested river crossing. Steep talus slopes and cut rock faces south of Highway 2 and the proximity of the railroad tracks leave inadequate space for a transmission line, making construction impossible in this area. Because it is not technically feasible to construct this realignment option, it was eliminated from detailed evaluation in the EIS. Mr. Gould further stated his belief that a line could be built in this area if BPA used a steel single pole structure, but it remains that there is inadequate room at pinch points in this area between the railroad track and the highway to build even a single pole transmission line.

² BPA is aware that Montana DEQ also received several public comments on its Draft Conclusions and Determination document that it prepared for BPA's rebuild project. Montana DEQ issued its document for public review and comment in June 2008, and as previously noted, has recently issued its Final Conclusions and Determination document. BPA has reviewed and considered the comments received by DEQ on its document, many of which raise the same or similar issues that were raised in comment letters submitted to BPA on the Draft and Final EISs.

Mr. Gould also indicated that he is not concerned with reconstruction of a 115-kV line on the existing route because that would be what Big Horn Terrace property owners currently have on their properties and they would not be any worse off. However, he stated if a 230-kV line is to be constructed, moving the line as he suggests should be considered. As is documented in this ROD, BPA has decided to implement the Proposed Action of rebuilding the line as a 115-kV single-circuit line. BPA expects this 115-kV line to be sufficient to serve load for at least the next 40 years.

The letter from the other property owner, Dale Swapinski, raised concerns about EMF levels at houses near the existing transmission line and potential health effects. Mr. Swapinski asked what scientific methodology was used to estimate existing magnetic field levels at nearby houses, and whether the best scientific tools available could be used to more accurately determine levels under both existing conditions and with the proposed rebuild. Appendix H, Electrical Effects, of the Final EIS describes the methodology that was used to estimate existing magnetic field levels on and off the transmission line right-of-way, as well as at nearby houses. To determine average fields in houses along the proposed route in terms of typical long-term average exposures used in epidemiological studies, the magnetic-field profiles were computed for the lines at an average height of 1 meter and carrying the projected annual average current for the line. Estimates of the average fields were made for three points at each house – the closest point to the centerline of the transmission line, the farthest point, and a middle point – from the field profiles for each house. The highest average field is always at the closest point because magnetic field levels fall quickly with distance.

The magnetic field estimates contained in the EIS represent reasonably accurate estimates because they are based on well-known physical principles. In fact, because these estimates are based on very conservative assumptions (i.e., maximum voltage, maximum current, and minimum conductor height), these estimates are likely higher than actual field conditions. In addition, the use of detailed survey drawings and aerial photographs for estimating magnetic field levels at nearby houses allowed for fairly accurate estimates. The high resolution and detail of these sources allowed the distance from the centerline to houses to be determined within about ± 2.5 feet. At distances from centerline of 30 feet to 125 feet (far edge of houses) this translates to an accuracy in the field of about ± 0.4 milligauss (mG) at the near location and ± 0.1 mG at the distant location. Accordingly, there may be some slight deviations from the estimated average magnetic fields described in the Final EIS, but not so much as to affect the general conclusions about average field levels in these houses.

Mr. Swapinski also asked about notification of nearby residents of EMF levels and potential health effects from the existing and rebuilt line. BPA does not have a standard practice of notifying landowners adjacent to its 15,000 miles of transmission lines of EMF levels or potential health effects. However, in the case of the Libby-Troy line, BPA has prepared an EIS for the proposed rebuild project that provides this notification in general terms. This EIS has been widely distributed, including to most landowners along the line, and is available both in hard copy and on-line (see the Public Availability section of this ROD for information about obtaining a copy).

Regarding notification of residents, BPA will contact residents in the Big Horn Terrace and Pipe Creek areas with information regarding EMF. In addition, persons with residences along the

transmission line who are interested in receiving EMF information may call Kirk Robinson, BPA Project Manager, at 360-619-6301.

Comments Received After the Final EIS Comment Period

BPA also received correspondence related to the Final EIS after the three-week period during which the agency asked for comments. Letters were received from the Western Montana Electric Generating & Transmission Cooperative (WMG&T), the U.S. Environmental Protection Agency (EPA), Mr. Gould (his second letter) and another individual who owns property in the Big Horn Terrace area. Additional correspondence was received by U.S. Congressional members from their constituents and forwarded to BPA. BPA received one forwarded letter from an individual who owns property in the Big Horn Terrace area, and one forwarded letter from the Libby Fire Department Fire Chief. BPA also received copies of a postcard mailer with comments; the same postcard was submitted separately by households in the Big Horn Terrace and Pipe Creek areas to their Congressional representative.

The letter from WMG&T stated the importance that the transmission line rebuild occur as expeditiously as possible in light of the line's deteriorating condition. WMG&T believes that the rebuild project should be completed as quickly as possible to maintain the reliability of the region's and northwestern Montana's transmission system. BPA shares these beliefs, and intends to move forward in a timely manner with the rebuild project.

The letter from the EPA stated EPA's support for BPA's Proposed Action with the Kootenai River Crossing realignment option. While the EPA expressed concerns about ground disturbance and water quality impacts from the rebuild project, the EPA noted that the Proposed Action and Kootenai River Crossing realignment would involve less disturbance to natural resources than Alternative 1 and the other realignments. EPA also stated that it was pleased with mitigation measures identified in the Final EIS. These viewpoints are noted. BPA is committed to implementing all mitigation measures identified in the Final EIS (see the attached Mitigation Action Plan), and will work to further minimize project impacts where practicable during implementation.

EPA also noted that it had received a letter from Mr. Gould (his second letter), and requested that BPA address this letter. As noted above, Mr. Gould also submitted his second letter directly to BPA. Like his first letter, Mr. Gould's second letter suggested that BPA should consider placing the line in a new alignment that would cross from the north side of the Kootenai River to the south side at a point east of the Big Horn Terrace area and then continue on the south side of the river west to Troy Substation. Mr. Gould stated that this would avoid impacts along Sheep Range Road and in the Kootenai Falls Wildlife Management Area. As discussed above, Mr. Gould's suggested realignment was an alternative that was considered by BPA but eliminated from detailed study in the EIS.

Mr. Gould also expressed concerned about potential impacts of the proposed rebuild project in its current alignment on the bighorn sheep herd in the area. Potential impacts to this species were addressed in Section 3.5 of the Final EIS. Because canopy removal will be minimal and will still provide a secure corridor for animals to forage close to cover, these impacts were identified as low. Mitigation is also identified in Section 3.5.3 of the Final EIS to minimize

disturbance of this species (use of heavy equipment will not occur during the bighorn sheep lambing period [April 1 through June 30]).

Mr. Gould also referenced some repair work on Sheep Range Road that BPA conducted in 2007. This repair work was conducted as part of routine maintenance and repair work for existing access along Sheep Range Road for the existing transmission line, and was conducted separately from the rebuild project. The road work was conducted to make the road safe for bicyclists and hikers and to protect cultural resources exposed by ruts. Much of the road remains as it was before the road work as only portions of Sheep Range Road were fixed by placement of fabric and gravel.

Mr. Gould indicated that additional road work would also impact the scenic quality of the Kootenai Falls Wildlife Management Area. The potential for visual impacts in this area was discussed and thoroughly analyzed in Section 3.7 of the EIS. As part of the Agency Preferred Alternative (described above), a bridge will not be constructed across China Creek; construction of the Kootenai River Crossing realignment option will eliminate the need for a bridge. Some portions of the Sheep Range Road, such as along Black Eagle Rock, will be widened to allow large equipment to pass. Widening the road along the face of Black Eagle Rock with the use of retaining walls will provide a road base wide enough for large equipment without removing a section of the rock face, an area important to local tribes. To clarify, the use of “welded wire face” as mentioned by Mr. Gould refers to the material used to hold the rock within the retaining wall structure (as described in Section 2.2.5 of the EIS). Also to clarify, the use of 15,000 yards of special rock embankment and 25,000 yards of crushed rock as described in the EIS, are for the entire 17-mile line rebuild project and not just for road work on Sheep Range Road.

The letter from the other property owner, Carolyn Fera, suggested that, in making its decision concerning the rebuild project, BPA should consider potential impacts to humans as much as impacts to the natural environment. BPA has fully considered potential impacts to humans, including potential EMF and other health effects as well as safety risks from fire and other factors, from the rebuild project. These potential impacts and others were fully evaluated and discussed in the Final EIS, and have been taken into consideration in reaching a decision in this ROD to proceed with the rebuild project.

One of the letters forwarded from a Congressional member was written by John Smith, who owns property in Big Horn Terrace. This letter is similar to the letter from Mr. Swapinski. Like Mr. Swapinski, Mr. Smith raised concerns about EMF levels at houses near the existing transmission line and potential health effects and stated that BPA’s “policy is one of total disregard” for the health effects from EMF. Mr. Smith’s statement is incorrect. BPA is very aware of the current science regarding potential health effects associated with EMF, and while uncertainty remains concerning these potential effects, the employees of BPA's transmission design group constantly work to ensure that BPA's transmission lines minimize EMF to the extent possible given current technology. Our society’s demand for wide-spread availability of reliable power for everyone means that transmission lines inherently must pass through inhabited areas. Indeed, many residential areas, such as the Big Horn Terrace area, have been built next to existing transmission lines, such as the Libby-Troy line, that predate development often by decades.

Mr. Smith also stated that BPA disregarded a large number of EMF health concerns, which he enumerated in an attachment to his letter, that were included in Appendix J of the Final EIS. To the contrary, BPA has considered these potential health effects in both its analysis in the Final EIS, as well as in the decision documented in this ROD. That is precisely why these potential health effects, as well as reviews of the various studies concerning EMF health effects, were included in the Final EIS as part of Appendix J. In addition, the information in Appendix J was a key source for the analysis of potential health effects related to EMF that is contained in Section 3.10 of the Final EIS. BPA believes that on balance, accepted scientific studies, including an international assessment sponsored by the World Health Organization, support that there is not a proven EMF health risk associated with transmission lines.

Mr. Smith also expressed concern that five houses³ near the existing transmission line have estimated magnetic field levels above 3-4 mG. To place that amount in context, magnetic field measurements of common household appliances routinely expose people to magnetic field levels that are equal to or much higher than 3-4 mG. For example, a 2002 National Institute of Environmental Health Services report on EMF states that at a distance of 1 foot, magnetic field levels from automatic dishwashers are 6-30 mG, from vacuum cleaners are 20-200 mG, and from portable electric heaters are 1-40 mG. In addition, research compiled by BPA in the mid 1990s shows that a hair dryer typically emits 6 – 2,000 mG at a distance of 1.2 inches and that an electric blanket averages 15 mG at this distance. Thus, the estimated magnetic field levels are not significantly different than levels associated with common household appliances.

Mr. Smith also asked for the specific magnetic field levels at the five houses near the existing transmission line that have estimated levels above 3-4 mG. As discussed above, estimates were made for three points at each house – the closest point, the farthest point, and a middle point. At two of the households, magnetic field levels range from 2.1-2.6 mG at the farthest point to 6.1 mG at the closest point. At the remaining three households, magnetic field levels range from 1.1-1.9 mG at the farthest point to 3.8 mG at the closest point. Again, these levels are not significantly different than levels associated with common household appliances, and BPA believes that accepted scientific research supports that these levels do not pose a significant health concern.

Mr. Smith, like Mr. Swapinski, also asked about whether nearby residences with estimated magnetic field levels above 3-4 mG have been notified of these levels and potential EMF health effects. As discussed above, the widely distributed Final EIS for the proposed rebuild project provides general notification of potential health effects and general EMF levels (see the Public Availability section of this ROD for information about obtaining a copy). Also as discussed above, BPA will contact residents in the Big Horn Terrace and Pipe Creek areas with information about EMF, and persons may call Kirk Robinson, BPA Project Manager, at 360-619-6301.

Mr. Smith also raised concerns that the households estimated to have over 3-4 mG levels from the existing line have not been specifically identified. While BPA appreciates the desire for

³ In the Final EIS, BPA indicated that there are six houses near the transmission line where magnetic field levels are above 3-4 mG. BPA subsequently learned that one of these was actually just a concrete pad, so only five houses have magnetic field levels above 3-4 mG.

more information on this topic, we also believe we should balance this desire for more information with the privacy of the individual homeowners. We believe it is important to respect and honor each resident's potential choice not to know or have others know their estimated magnetic field levels, should they so desire. For that reason, we will contact residents with more specific information on EMF, as discussed above.

Mr. Smith also stated that BPA disregards a portion of a report entitled "BioInitiative: A Rationale for a Biologically-based Exposure Standard for Electromagnetic Radiation." This is incorrect. BPA reviewed and considered this report, as indicated in Appendix J of the Final EIS. While the opinions of the report's authors are thought-provoking, the report does not follow accepted scientific methodology for determining potential EMF health effects. It is not reasonable to give substantial weight to a report that is not, by its design, comparable to the more rigorous study methodologies employed in the larger body of EMF-related literature independently peer-reviewed by the international scientific community under the sponsorship of the World Health Organization. BPA believes that, on balance, accepted scientific studies support that there is little proven health risk associated with transmission lines. In addition, merely replacing an existing line with a substantially similar one does not significantly alter any already existing risk to the extent that it may exist. Thus, the EIS identifies the overall impact level as low because very few households are potentially exposed to magnetic field levels above 3-4 mG, and the rebuild project would not change already existing levels.

Mr. Smith also indicated that it is inappropriate to compare magnetic field levels from the rebuilt line to EMF levels from other 115-kV lines in Montana and elsewhere. To clarify, the Final EIS provided this information simply to make the point that the design of the rebuilt line would be similar to other existing 115-kV lines in the region, with similar magnetic field levels. In other words, the rebuilt line would not have characteristics that would significantly differentiate it from existing 115-kV lines, so magnetic fields associated with these other lines can be reasonably used as a good source for estimates of magnetic field levels associated with the rebuilt line.

Finally, Mr. Smith identified a number of potential safety risks associated with transmission lines, and stated that the comment letter of the Libby Fire Chief concerning risks to firefighting equipment was disregarded in the Final EIS. BPA is well aware of potential safety risks associated with transmission lines, and all risks identified by Mr. Smith were identified and discussed in the Final EIS. Replacing the line on its existing route would not increase any potential hazards to firefighting. In addition, the Final EIS specifically identifies and responds to the comment letter of the Libby Fire Chief. The comment of the Libby Fire Chief and BPA's response can be found in Chapter 9 of the Final EIS.

The other letter forwarded from a Congressional member was written by Tom Wood, Libby Fire Department Fire Chief. Mr. Wood stated that BPA had not responded to his letter dated December 20, 2006 regarding fire suppression in rural residential areas such as Big Horn Terrace. As discussed above, BPA has indeed previously responded to Mr. Wood's earlier letter. Mr. Wood's letter was included as a comment letter (#LTF0009) that we responded to in the Final EIS, along with other comment letters on the Draft EIS that were received during and after the Draft EIS public comment period (see Chapter 9 of the Final EIS).

Mr. Wood also expressed concern about an incident when a conductor on the Libby-to-Troy transmission line fell to the ground causing a fire, and he was not able to reach BPA to determine if the transmission line was energized when the Fire Department responded to the fire.

Mr. Wood presumably is referring to the July 19, 2003 incident, described in the EIS, where a fitting on the conductor failed, allowing the conductor to fall to the ground and causing a fire. BPA's dispatch logs for that day show that the Lincoln County Sheriff's office reported the fire to BPA and that the Sheriff's office was informed that the downed line should be treated as energized until it could be confirmed as de-energized. BPA was able to make this confirmation within a few hours. De-energization confirmation is extremely important so that we can ensure the safety of anyone, including firefighters, who might come in proximity of the downed lines.

In addition, BPA's goal is to ensure that fire agencies along its lines know how to contact us in emergencies for the safety of their firefighters and ability to control fires as soon as possible. BPA maintains two 24-hour emergency contact phone numbers: one at its Dittmer Control Center in Vancouver, Washington, and one at its Munro Control Center in Spokane, Washington. BPA urges fire agencies to call one of those numbers in the event of a fire near one of our transmission lines so that we can initiate procedures to de-energize the line. BPA will coordinate with the Libby Fire Department to make sure that it has accurate telephone contact information.

Mr. Wood also stated that the Big Horn Terrace area is not currently within the Lincoln County Rural Fire District (part of the Libby Fire Department), and fire suppression is guided by an agreement between the District and the Kootenai NF. Mr. Wood noted that, although the District is considering bringing the area into the District, it may not if the presence of the transmission line near homes is considered too major of an issue. Mr. Wood also noted that he does not consider it to be acceptable to stage firefighting equipment under the transmission line. BPA is aware of the difficulty in reaching certain homes that have been constructed adjacent to the corridor since the transmission line was built. However, as discussed in the Final EIS, a rebuild of the existing transmission line in its existing corridor in the Big Horn Terrace area would not change the already existing potential safety risks associated with firefighting equipment. In addition, BPA works with local, state, and Federal fire agencies to help educate firefighters about how to safely conduct fire-fighting activities near transmission lines. BPA will specifically work with the Libby Fire Department to assure that it has accurate information concerning safe handling of fire equipment and operations around our transmission lines.

The copies of the postcard mailer BPA received asked for Congressional assistance in persuading BPA to select the Quartz Creek and Pipe Creek realignment options, thereby moving the existing line away from the Big Horn Terrace and Pipe Creek residential areas. The postcard stated that electric lines pose a safety risk by restricting fire equipment operation in residential neighborhoods. As discussed in the Final EIS, the rebuild project will not change the existing potential safety risk associated with firefighting equipment. The Final EIS also provides information to assist firefighters to further reduce this risk. Nonetheless, the Final EIS acknowledges that using the realignment options would reduce this risk.

The postcard also stated that the line poses a health (cancer) risk by subjecting some residents to above 3-4 mG magnetic field levels. Analysis that combined the results from many epidemiology studies has found an association between magnetic field exposures above 3-4 mG and childhood leukemia. Such a finding represents a statistical link but does not demonstrate a

cause-and-effect relationship between magnetic fields and health effects. References and research on health effects from the electric and magnetic fields from the electric power system are discussed in Appendix J of the Final EIS, *Assessment of Research Regarding EMF and Health and Environmental Effects*. As documented there, extensive scientific reviews of the research literature on the effects of such fields have not demonstrated there are field-related health hazards associated with living near high-voltage transmission lines. The potential for electrical shock and even electrocution are recognized hazards of living and working near high-voltage transmission lines, as well as near electrical appliances and power distribution lines. These recognized hazards are why transmission lines are designed to meet safety codes and why certain activities near lines are discouraged.

Finally, the postcard stated that BPA has a moral obligation to move the line away from residential areas so residents are no longer subject to health and safety risks. While BPA respects the viewpoint of the commenters, BPA believes that rebuilding the line in its present corridor in these areas does not change any already existing health and safety risks, and does not present such serious health and safety risks that the line must be moved for these reasons, based on the analysis contained in the Final EIS.

Rationale for Decision

BPA has analyzed the environmental impacts of the Proposed Action, Alternative 1, the No Action Alternative, and the three realignment options, and has considered public comments received on the Draft and Final EISs. In making its decision, BPA also considered how well the various alternatives and realignment options would meet the following project purposes (i.e., objectives) identified for this project in the Final EIS:

- Maintain transmission system reliability to industry standards;
- Continue to meet BPA's contractual and statutory obligations;
- Minimize environmental impacts; and
- Minimize costs.

BPA believes that implementation of the Proposed Action with the Kootenai River Crossing realignment option will best meet these objectives.

System Reliability

The Proposed Action and Alternative 1, in contrast to the No Action Alternative, both provide a rebuilt transmission line that would be constructed to industry standards and would maintain system reliability. Both action alternatives ensure that necessary redundant load service to the Libby/Troy area continues to be provided on a reliable basis. Potential line outages would decrease because the line's existing deteriorating wood structures would be replaced with new wood and steel poles (Proposed Action) or steel poles (Alternative 1). Tree clearing for both action alternatives would provide a corridor clear of vegetation and danger trees reducing the potential for electrical flash-over and subsequent outages.

There is no difference in system reliability between the Kootenai River Crossing realignment option and leaving the line in its existing corridor where it crosses the Kootenai River; both

would be constructed to industry standards and would maintain system reliability. The same holds true for the other two realignment options.

Contractual and Statutory Obligations

The Proposed Action and Alternative 1 both allow BPA to meet its obligations under the Federal Columbia River Transmission Act to replace transmission lines necessary for maintaining electrical stability and reliability and for transmitting electric power to serve its customers. The No Action Alternative does not meet this objective. As discussed above, both the Proposed Action and Alternative 1 provide a rebuilt transmission line that would be constructed to industry standards and would maintain system reliability. Both action alternatives also ensure continued system stability in the area.

Both action alternatives also allow for BPA to continue providing service to its customers reliably and safely. While Alternative 1 would have a greater capacity for meeting future load growth because it would involve a rebuild as a double-circuit 230-kV line, technical studies conducted for the proposed project indicate that rebuilding the line as a single-circuit 115-kV line would meet load service requirements in the area for at least the next 40 years. The Proposed Action, therefore, is expected to be adequate to address load growth and serve BPA's customers for the foreseeable future.

The Kootenai River Crossing realignment option will not have a different effect on BPA's contractual and statutory obligations than the existing corridor that crosses the Kootenai River because the realignment will not result in different electrical stability and reliability and will not change the ability of BPA to serve its customers. The same holds true for the other two realignment options.

Environmental Impacts

The Proposed Action allows BPA to minimize environmental impacts compared to Alternative 1 and the No Action Alternative. The Proposed Action will replace the existing line in an already developed corridor with the same type of structures and corridor width for most of the project length. Alternative 1 would have resulted in higher impact levels than the Proposed Action, mainly because of the need for a wider cleared corridor and taller structures for the 230-kV line under Alternative 1. For Alternative 1, long-term adverse effects to residential lands, recreation lands, resource management areas, visual resources, and cultural resources would be moderate to high after completion of the project. Clearing trees that screen the corridor would make the line more visible to residents and would adversely affect the recreational experience. Taller, steel double-circuit structures would be visible from homes and along local area trails and roads. Placement of new steel structures and construction and improvement of access roads within or near prehistoric cultural sites and Traditional Cultural Properties would continue to have a moderate effect on cultural resources. Alternative 1 also would have greater impacts to native plant species from compaction of soils and introduction of noxious weeds during construction.

The No Action Alternative also would have resulted in higher impact levels than the Proposed Action, mainly because of the ongoing maintenance and emergency repair activities that would frequently need to occur. Environmental impacts associated with these activities are discussed in

the EIS and described earlier in this ROD (see the Environmentally Preferable Alternative section of this ROD).

Construction of the Pipe Creek realignment option rather than rebuilding on the existing corridor through the Pipe Creek area would have had greater impacts on the following resources (at either voltage): soils and water resources, land use, vegetation (old growth trees and weeds), wetlands and floodplains, wildlife, visual resources (one private parcel and Kootenai NF land) and cultural resources. While rebuilding the line in the existing corridor in this area would have potentially greater noise, air quality, and public health and safety impacts than the realignment option, the noise and air quality impacts would be temporary in nature and mitigated to the extent feasible, and the potential public health and safety impacts from the rebuilt line would be no different than currently exist today with the existing line. General electrical safety risks would not change, and neither would EMF levels and any associated health effects. In addition, BPA will avoid helicopter use in the Pipe Creek area because of concerns raised by local landowners in this area.

Construction of the Quartz Creek realignment option rather than rebuilding on the existing corridor through Big Horn Terrace would have had greater impacts on the following resources (at either voltage): soils, land use (on Kootenai NF lands), vegetation (old growth trees and weeds), wildlife, visual resources (Highway 2 travelers and USFS Visual Quality Objectives) and cultural resources. As for the Pipe Creek area, rebuilding the line in the existing corridor in the Quartz Creek area would have potentially greater noise, air quality, and public health and safety impacts than the realignment option. However, the noise and air quality impacts would be temporary in nature and mitigated to the extent feasible. In addition, the potential public health and safety impacts from the rebuilt line would be no different than currently exist today with the existing line, and BPA will avoid helicopter use in the Quartz Creek area because of landowner concerns.

Construction of the Kootenai River Crossing realignment option rather than rebuilding on the existing corridor will have greater impacts on the following resources (at either voltage): wildlife (bald eagle and migratory birds), amphibians, visuals (negative along Highway 2 but positive near Kootenai Falls), and cultural resources (positive).

BPA also has worked to lessen potential environmental and social impacts through the design of the Proposed Action and the development of mitigation measures described in the attached Mitigation Action Plan. With the adopted erosion and sediment control measures, construction impacts to water and soil resources will be short-term and low. Avoidance of sensitive plant populations and old growth stands will minimize impacts. Pressure washing of all equipment and treatment of current noxious weed infestations will reduce weed spread during and after construction.

Acquisition of additional and new right-of-way for the Proposed Action through the Pipe Creek residential area along Kootenai River Road will not change residential land use. Long-term impacts to residents will occur from placement of new structures in view of residences, although to the greatest practical extent the new structures will be placed in the same locations as existing structures, and removal of trees that screen homes. Within the Big Horn Terrace subdivision, new corridor width will not be needed, although some corridor clearing and danger tree removal will occur. Independent of this project and as part of BPA's ongoing vegetation management

program, new standards for clearing require removal of all vegetation that is growing or could grow within 25 feet of the conductor. Land use will not change. Improvement and construction of roads that cross private lands to access the transmission line will result in a moderate to high impact to residents living adjacent to the corridor. Short-term, low to high impacts to residents living along the transmission line will occur from construction related noise, road closures, and dust generation. The Bighorn Trail will be closed during the day (7:00 am to 7:00 pm) for a two to three month period for construction of the retaining walls at Black Eagle Rock. This closure will result in a high, short-term impact to recreationalists and others who visit the wildlife area west of Black Eagle Rock.

The use of wood pole structures within residential areas will lessen the impact to visual resources because the line will look similar to the existing line except that structures will be about five to ten feet taller. Removal of danger trees, as required by BPA's ongoing transmission system vegetation management program, will make the rebuilt line more visible to residents and from local area roads located along the rebuilt line.

Using steel pole structures in inaccessible areas such as along Sheep Range Road and the old Highway 2 trail will reduce maintenance access into those areas; steel structures need less maintenance than wood pole structures. Additionally the steel structures will be colorized a dark grey to blend with the background as much as possible.

Cultural resources that were identified along the line will be avoided, protected, or further evaluated as necessary. However, impacts to cultural resources will remain low to moderate. Wetlands that occur along the line will be avoided through relocation of structures and construction and improvement of roads outside of wetlands and wetland buffer areas. Activities affecting wetlands and streams that cannot be avoided will be permitted through the U.S. Army Corps of Engineers. Removal of vegetation throughout the project will be limited to trees and brush that could interfere with the transmission line.

Wildlife impacts will be lessened by avoiding sensitive habitat and by implementing timing restrictions and other mitigation for project construction work. Timing restrictions are identified for the bald eagle and other Forest Sensitive birds, as well as for the grizzly bear, which is a threatened species under the Endangered Species Act (ESA). Roads within grizzly bear management zones will be closed or stored to lessen impacts to grizzly bear habitat from use of Sheep Range Road and other access roads. The project would not have an adverse effect on the gray wolf because there are no known den or rendezvous sites in the project area and the potential for wolves to frequent the area is considered low.⁴ Impacts to fish will be minimized by using vegetative buffers and sediment barriers to prevent sediment from moving into water bodies.

⁴ At the time of Draft EIS issuance in July 2007, the northern Rocky Mountain gray wolf distinct population segment was listed as an endangered species under the ESA, and the Draft EIS identified and discussed it as such. In March 2008, the U.S. Fish and Wildlife Service removed this species from ESA listing. Accordingly, the Final EIS included text revisions reflecting that this species had been removed from ESA listing, but was still on the Forest Service's sensitive species list. After issuance of the Final EIS, the U.S. District Court for the District of Montana issued an order on July 18, 2008 that enjoined the U.S. Fish and Wildlife Service from delisting the grey wolf pending resolution of a legal challenge by environmental groups of the delisting decision. Regardless of its listing status, BPA has adequately considered this species throughout the EIS process.

Public health and safety impacts will be minimized by providing notice to the public of construction activities, and securing the site to protect equipment and the general public at the end of each workday. EMF levels from the rebuilt line will not be significantly different from those that exist today with the existing line. After construction, BPA will respond to any complaints, and if necessary, provide assistance to install or repair grounding to mitigate nuisance shocks. Although no helicopter safety impacts are expected, BPA will not use helicopters for transmission line construction in the Big Horn Terrace and Pipe Creek residential areas. Noise impacts during construction will be minimized by limiting construction activities to daytime hours (7:00 a.m. to 7:00 p.m.). Impacts to social and economic resources will be low.

The Kootenai River Crossing realignment will remove the line from the viewshed of the Kootenai Falls area, a popular recreation site and a culturally sensitive area for local area tribes. This will be a positive impact. Although visual resources along the south side of Highway 2 will be negatively impacted, the impact to visual resources within the Kootenai River recreational area will be positive. Impacts to grizzly bear habitat in Bear Management Unit 10 will be removed with the realignment. Placement of conductor in a new location along the Kootenai River could potentially increase the risk of line collision for bald eagles and other migratory birds. Bird flight diverters will be installed on the new river crossing so that birds will be less likely to fly into the wire. Use of the realignment will remove the need for clearing and bridge construction in the floodplain and riparian wetlands of China Creek. Coeur d'Alene salamanders could be displaced from their habitat or killed with use of the realignment; however, adopted mitigation such as avoidance of salamander habitat will limit impacts to individuals.

BPA will continue during maintenance of the line to work with landowners in efforts to lessen impacts as much as possible to private lands, and limit the spread of noxious weeds. A complete list of mitigation measures adopted for the project is in the attached Mitigation Action Plan.

Cost

The Proposed Action with the Kootenai River Crossing realignment option would cost about \$18 million. These are reasonable costs for rebuilding a 17-mile 115-kV single-circuit transmission line in an area such as the project area. Of the two action alternatives, the Proposed Action would best serve to minimize costs in the near-term. Given the expected adequacy of a 115-kV single-circuit rebuild under the Proposed Action to serve existing and future loads for at least the next 40 years, the Proposed Action is the most cost-effective rebuild option for the foreseeable future. While the No Action Alternative could minimize costs over the next couple years, increasing operation, maintenance, and repair costs in the future potentially could cause the No Action Alternative to cost roughly as much as either of the action alternatives and greater socioeconomic impacts.

Mitigation

All the mitigation measures described in the Draft EIS and updated in the Final EIS have been adopted. A complete list of these measures is in the attached Mitigation Action Plan. BPA will be responsible for the execution of all mitigation measures.

Public Availability

This ROD will be available to all interested parties and affected persons and agencies. It is being sent to all stakeholders who requested a copy. Copies of the Rebuild of the Libby (FEC) to Troy Section of the Libby to Bonners Ferry 115-kilovolt Transmission Line Project Draft and Final EISs, and additional copies of this ROD are available from BPA's Public Information Center, P.O. Box 3621, Portland, Oregon, 97208-3621. Copies of these documents may also be obtained by using BPA's nationwide toll-free document request line: 1-800-622-4520, or by accessing BPA's project Web site: http://www.efw.bpa.gov/environmental_services/Document_Library//.

Conclusion

Upon consideration of the entire record, including comments and other materials submitted after issuance of the Final EIS, BPA has decided to rebuild the Libby-Troy section of the existing Libby to Bonners Ferry transmission line at the same voltage (115 kV) and with the same number of circuits (one) and to realign the Kootenai River crossing as described in this ROD and the Libby (FEC) to Troy Section of the Libby to Bonners Ferry Transmission Line Project Final EIS. Helicopters will be used for constructing the rebuilt line, except for in the Big Horn Terrace and Pipe Creek residential areas, where all construction will occur from the ground. BPA will comply with specific substantive provisions for environmental protection that have been identified by the State of Montana through its Final Conclusions and Determination document for portions of the line to be rebuilt on federal lands, and intends to comply to the extent practicable with any such standards identified by the State of Montana for other lands. BPA also will comply with the permits and authorizations it receives from the Kootenai NF for the portion of the rebuild project on Kootenai NF lands.

Issued in Portland, Oregon.

/s/Stephen J. Wright

July 25, 2008

Stephen J. Wright
Administrator and
Chief Executive Officer

Date

Attachment:
Mitigation Action Plan

**Mitigation Action Plan
for the
Rebuild of the Libby (FEC) to Troy Section of
Bonneville Power Administration's
Libby to Bonners Ferry 115-kilovolt Transmission Line Project**

Mitigation Measure	Time of Implementation
Geology, Soils and Water Resources	
<ul style="list-style-type: none"> Prepare and implement a Stormwater Pollution Prevention Plan (SWPP) to lessen soil erosion and improve water quality of stormwater run-off. SWPP Plans are developed to prevent movement of sediment off-site to adjacent water bodies during short-term or temporary soil disturbance at construction sites. The plans address stabilization practices, structural practices and stormwater management. 	Prior to construction
<ul style="list-style-type: none"> Comply with the terms and conditions of the permit issued under Section 404 of the Clean Water Act for discharge of dredged and fill material into waters of the United States. 	During construction
<ul style="list-style-type: none"> Comply with the terms and conditions of State of Montana permits for discharge of solid material, including building materials, into waters of the United States including a 318 Authorization under Montana's Water Quality Act and a Montana Streambed Preservation Act 124 permit. 	During construction
<ul style="list-style-type: none"> Design access roads to control runoff and prevent erosion by using low grades, outsloping, intercepting dips, water bars, ditch-outs, or a combination of these methods. 	During design
<ul style="list-style-type: none"> Properly space and size culverts, cross-drains, and water bars using methods described in the Kootenai National Forest Hydraulic Guide (USDA Forest Service 1990). 	During design
<ul style="list-style-type: none"> Construct during the dry season (summer-fall) to minimize erosion, sedimentation, and soil compaction. 	During construction
<ul style="list-style-type: none"> Minimize construction equipment use within 150 feet of a water body (stream, river or wetland). 	During construction
<ul style="list-style-type: none"> Armor ditches, drain inlets and outlets with rock where needed for erosion control. 	During construction
<ul style="list-style-type: none"> Conduct pre-construction assessments with construction personnel to determine appropriate site-specific mitigation approaches to help reduce erosion and runoff, and to stabilize disturbed areas. 	Prior to construction
<ul style="list-style-type: none"> Surface all access roads with rock to help prevent erosion and rutting of road surfaces and to support vehicle traffic. 	During construction
<ul style="list-style-type: none"> Avoid construction on steep, unstable slopes if possible. 	During construction
<ul style="list-style-type: none"> Deposit all unused excavated material in upland areas and stabilize. 	During construction

Mitigation Measure	Time of Implementation
<ul style="list-style-type: none"> Avoid and minimize placement of excavated material in environmentally sensitive areas such as streams, riparian areas, or wetlands. 	During construction
<ul style="list-style-type: none"> Save topsoil removed for structure and new access road construction for onsite restoration activities to promote regrowth from the native seed bank in the topsoil. If contaminated, follow-up weed control will be needed. 	During construction
<ul style="list-style-type: none"> Cover exposed piles of soil with plastic or similar material to reduce erosion potential if there is a threat of rain. 	During construction
<ul style="list-style-type: none"> Limit grubbing to the area around structure sites to lessen the impact on the roots of low-growing vegetation, so they may re-sprout. 	During construction
<ul style="list-style-type: none"> Avoid vegetation clearing at sides of existing access roads to the extent possible, to minimize impacts to adjacent forested areas. 	During construction
<ul style="list-style-type: none"> Cut or crush vegetation, rather than blade, in areas that will remain vegetated in order to maximize the ability of plant roots to keep soil intact and prevent sediment movement offsite. 	During construction
<ul style="list-style-type: none"> Install erosion control measures such as silt fence, straw mulch, straw wattles, straw bale check dams, and other soil stabilizers. 	Prior to and during construction
<ul style="list-style-type: none"> Revegetate or reseed all disturbed areas with a native (where possible) plant/grass seed mixture suited to the site, to promote vegetation that will hold soil in place. 	After construction
<ul style="list-style-type: none"> Till or scarify compacted soils before reseeding where necessary as determined by applicable agencies. 	After construction
<ul style="list-style-type: none"> Monitor erosion control Best Management Practices to ensure proper function and nominal erosion levels. 	During and after construction
<ul style="list-style-type: none"> Monitor revegetation and site restoration work for adequate growth; implement contingency measures as necessary. 	After construction
<ul style="list-style-type: none"> Minimize construction equipment access near Kootenai River and other stream bank areas. 	During construction
<ul style="list-style-type: none"> Inspect and maintain project facilities, including the access roads, to ensure erosion levels remain the same or less than current conditions. 	After construction
<ul style="list-style-type: none"> Inspect and maintain tanks and equipment containing oil, fuel or chemicals for drips or leaks and to prevent spills onto the ground or into state waters. 	Prior to and during construction
<ul style="list-style-type: none"> Maintain and repair all equipment and vehicles on impervious surfaces away from all sources of surface water. 	During construction
<ul style="list-style-type: none"> Refuel and maintain equipment at least 25 feet from any natural or manmade drainage conveyance including streams, wetlands, ditches, catch basins, ponds, and pipes, and provide spill containment and cleanup. Utilize pumps, funnels and absorbent pads for all equipment fueling and maintenance operations. 	During construction
<ul style="list-style-type: none"> Provide spill prevention kits at designated locations on the project site and at the hazardous material storage areas. 	During construction

Mitigation Measure	Time of Implementation
<ul style="list-style-type: none"> Remove all structures completely and fill the holes with appropriate backfill within Montana Department of Transportation right-of-way and other areas. Compact the backfill to prevent settling and revegetate the disturbed area to match the existing surrounding area. 	During construction
<ul style="list-style-type: none"> Minimize the number of road stream crossings. 	During design
<ul style="list-style-type: none"> Stabilize cut and fill slopes. 	During construction
<ul style="list-style-type: none"> Properly size culverts to handle flood events, pass bedload and woody debris, and reduce potential for washout. 	During design
Land Use	
<ul style="list-style-type: none"> Compensate landowners at market value for any new land rights required for clearing and right-of-way easements, or to construct new, temporary or permanent access roads. (Mitigation measure also listed under Social and Economic Resources.) 	Prior to construction
<ul style="list-style-type: none"> Compensate landowners for damage to property during construction and maintenance. 	After construction
<ul style="list-style-type: none"> Minimize or eliminate public access to project facilities through postings and installation of gates and barriers at appropriate access points and, at the landowner's request, on private property. 	After construction
Vegetation	
<ul style="list-style-type: none"> Threatened and Endangered and Forest Sensitive Species: <ul style="list-style-type: none"> Cut or crush vegetation rather than blade, in areas that will remain vegetated in order to maximize the ability of plants to resprout. (Mitigation measure also listed in Geology, Soils, and Water Resources Section.) Limit soil disturbance and mineral soil exposure during construction activities. Flag populations of Geyer's biscuit-root for avoidance during construction. Apply herbicides after Geyer's biscuit-root has completed blooming and is dormant. This usually occurs by early summer. Spot spray herbicide rather than broadcasting herbicide near or within the identified biscuit-root populations to avoid applying herbicide to the plants. Use an herbicide (possibly Chlopyralid) that has a low impact on biscuit-root. 	Prior to and during construction
<ul style="list-style-type: none"> Old Growth: <ul style="list-style-type: none"> Implement timing restrictions as described in Section 3.5.3, Wildlife/Mitigation, to minimize disturbance and limit destruction of nests of birds that use old growth habitat and within bald eagle Nest Site Management Zones. Mitigate for impacts to designated and undesignated old growth stands by purchasing private lands or conservation easements on private lands with old growth characteristics that may otherwise be developed or cleared for other purposes. BPA would purchase the lands prior to clearing in old growth areas. Any lands acquired for bald eagle mitigation that meet the definition of old growth habitat will also be acceptable for meeting mitigation objectives for old growth habitat. 	During and after construction

Mitigation Measure	Time of Implementation
<ul style="list-style-type: none"> ● Noxious Weeds: <ul style="list-style-type: none"> ➤ Comply with federal, state and county noxious weed control regulations and guidelines. Kootenai National Forest (NF) specialists will review project weed treatment procedures prior to construction. ➤ Implement Forest Service Manual (FSM) 2080 Noxious Weed Management Prevention and control measures on all Kootenai NF lands. See Appendix E. ➤ Use certified weed-free forage/mulch if available on all Kootenai NF lands in Montana (36 FR 261.50). ➤ Pressure or steam wash all equipment before entering the project area and when leaving discrete patches of noxious weeds. ➤ Flag or map noxious weed populations prior to construction for avoidance. Clean vehicles after leaving those areas to avoid spread of noxious weeds. ➤ Seed and fertilize newly constructed and restored roads after use with seed that meets the requirements of federal, state, and county noxious weed control regulations and guidelines. ➤ Use certified weed-free straw for erosion control for all construction, reconstruction and restoration activities. ➤ Treat and sign sites if new invaders are located and defer ground disturbing activities within those sites until the weed specialist from Lincoln County or the Kootenai NF determines the site is no longer a threat, and approves those activities. ➤ Follow site-specific guidelines for noxious weed treatments within or adjacent to known sensitive plant populations. All future treatment sites will be evaluated for sensitive plant habitat suitability; suitable habitats will be surveyed as necessary prior to treatment. ➤ Use the 1000 cubic yards of excess excavated material from structures 15/4 – 15/7 contaminated with spotted knapweed seed and other noxious weed seeds in areas that have the same noxious weed species. This material will not be used at sites relatively free of these species, such as the Kootenai River Crossing realignment. ➤ Treat the Dalmatian toadflax populations located east of structure 21/3 and at the Troy Substation on the Lake Creek road with herbicide prior to any activity, to reduce the potential for plants producing seed to be carried elsewhere. ➤ Cooperate with Lincoln County for the treatment of the common tansy population from structures 26/1 to 26/4 with herbicide prior to any motorized travel to reduce the chance of spreading this species. ➤ Wash All Terrain Vehicles and other off-road vehicles before bringing them into the historic Highway 2 area. ➤ Cooperate with private, county, state, and federal landowners to treat the noxious weeds along the access roads that will be used to bring tree clearing and construction equipment into the Kootenai River Crossing realignment area, to reduce the amount of noxious weed seed that could be available for dispersal. ➤ Wash all vehicles and construction equipment before beginning clearing and construction activities in the Kootenai River Crossing realignment area, to help prevent the transport of noxious weed seeds from areas that are already infested. 	<p>Prior to, during and after construction</p>

Mitigation Measure	Time of Implementation
<ul style="list-style-type: none"> ➤ Install gates and post signs on access roads to discourage recreational vehicular travel and subsequent noxious weed seed transport. Gates could be installed where the corridor crosses Quartz Creek Road west of structure 19/3. ➤ Apply all herbicides according to the labeled rates and recommendations to ensure the protection of surface water, ecological integrity and public health and safety. Herbicide selection will be based on target species on the site, site factors (such as soil types, distance to water, etc.), and with the objective to minimize impacts to non-target species. ➤ Conduct a post-construction weed survey to confirm whether or not noxious weeds have been spread within the project area, and take corrective action if needed. ➤ Control noxious weeds on fee-owned properties and where appropriate enter into noxious weed control programs with active weed control districts during operation and maintenance of the transmission line. 	
Wetlands and Floodplains	
<ul style="list-style-type: none"> • Obtain and comply with applicable Clean Water Act permits for all work in wetlands or streams. 	Prior to and during construction
<ul style="list-style-type: none"> • Comply with the terms and conditions of applicable State of Montana Water Quality Act and Streambed Preservation Act permits for all work in wetlands and streams. 	During construction
<ul style="list-style-type: none"> • Identify and flag wetlands before construction for avoidance. 	Prior to construction
<ul style="list-style-type: none"> • Locate structures, roads, staging areas and tensioning sites to avoid wetlands and floodplains as much as possible. 	During design
<ul style="list-style-type: none"> • Avoid construction within wetlands and wetland buffers to protect wetland functions and values, where possible. The wetland buffer width on federal land is 150 feet from the wetland boundary and 50 feet from the wetland boundary on all other lands. 	During construction
<ul style="list-style-type: none"> • Avoid mechanized land clearing within wetlands and riparian areas to minimize soil compaction from heavy machinery, destruction of live plants, and potential alteration of surface water patterns. 	During construction
<ul style="list-style-type: none"> • Install erosion control measures such as silt fences, straw mulch, straw wattles, check dams, other soil stabilizers, and reseed disturbed areas as required; a Stormwater Pollution Prevention Plan would be prepared. 	Prior to and during construction
<ul style="list-style-type: none"> • Use herbicides to control vegetation near wetlands in accordance with the Transmission System Vegetation Management Program (BPA 2000) and label restrictions, to limit impacts to water quality. 	During and after construction
<ul style="list-style-type: none"> • Use existing road systems, where possible, to access structure locations and for the clearing of the transmission line corridor. 	During design and construction
<ul style="list-style-type: none"> • Deposit all excavated material not reused in an upland area and stabilize. 	During construction
<ul style="list-style-type: none"> • Locate structures to minimize the potential for creating obstructions to floodwaters. 	During design

Mitigation Measure	Time of Implementation
<ul style="list-style-type: none"> Recontour and revegetate disturbed areas near floodplains with native and local species. 	During and after construction
Wildlife	
<ul style="list-style-type: none"> Grizzly bear <ul style="list-style-type: none"> Implement any mitigation measures for grizzly bear that may be required by the U.S. Fish and Wildlife Service (USFWS) through Section 7 consultations. Measures could include avoidance of certain locations during the den emergence period, restricting construction noise levels in certain areas, and provision of compensation for project effects. Design actions and the Kootenai River Crossing realignment to reduce grizzly bear mortality risk due to human-bear encounters. All construction and maintenance crews will observe proper storage of food, garbage, and other attractants within grizzly bear habitat as specified in the Kootenai National Forest Food Storage Order (Special Order, Kootenai National Forest, 2001; Occupancy and Use Restrictions and Food Storage for the Cabinet/Yaak Ecosystem). Implement mitigation for the Proposed Action and Kootenai River Crossing realignment that will increase core habitat and decrease total motorized route density (TMRD) in Bear Management Unit (BMU) 10. The removal of ten gates and the installation of earthen barriers on roads in BMU 10 that are currently closed year round to motorized travel will occur. This work would be done in conjunction with Kootenai NF proposed mitigation for fuels reduction work in BMU 10. Earthen barriers will make access to closed areas more difficult for motorized vehicles, thus increasing core habitat and reducing overall road density. The drainages and USFS roads are as follows: Lost Fork Creek (Roads 6164, 4653 and 4653 D); Big Foot - Seventeen Mile Creek (Roads 4681 B, C, D, E, F and G); and West Fork Quartz Creek (Roads 4690 F, and 4691). USFS Roads 14470, 14471, 14473 and 14474 will be “placed into storage” rather than removing gates, because they are behind other roads where gates would be removed. Placing roads into storage could entail culvert removal and subsequent recontouring of the stream banks. This work also would reduce potential sedimentation and subsequent impacts to fish from eliminating road maintenance. Remove the gate on the USFS Road 402 D spur (in BMU 1) in Cedar Creek and install an earthen barrier. This spur road is currently closed year round to motorized travel. Install earthen barriers in the West Kootenai Bear Outside Recovery Zone (BORZ), to close roads currently open to motorized travel equal to the amount of roads opened or constructed in the BORZ. All roads are located in the Quartz Creek drainage and include USFS roads 6145, 6704, 6704 A, and 5222. Use of high intensity motorized disturbance (such as heavy equipment or helicopter use) will not occur in BMUs 10 and 1 between April 1 and June 15 during the grizzly bear den emergence and spring period. This includes existing structures 21/5 to 25/8 along Sheep Range Road and the historic Highway 2. 	Prior to and during construction

Mitigation Measure	Time of Implementation
<ul style="list-style-type: none"> • Bald eagle <ul style="list-style-type: none"> ➤ Although bald eagles are no longer listed as threatened under the Endangered Species Act, measures such as avoidance of certain locations during the nesting periods, restricting construction noise levels in certain areas, and provision of compensation for project effects would be implemented. ➤ Implement mitigation for project activities within the primary use areas of the three nests, by purchasing private lands or conservation easements on private lands that may otherwise be developed or cleared for other purposes. Acres required for compensation would equal 100% of the area to be cleared of all tall growing vegetation, as well as a portion of the area that falls within the edge affected area that currently supports trees suitable for bald eagle perching, roosting, and/or nesting. ➤ Use of high intensity motorized disturbance (such as heavy equipment or helicopter use) will not occur between February 1 and August 15 within the primary use areas of an active nest during the nesting and fledging period. This includes: existing structures 17/6 to 18/3; existing structures 20/9 to 21/5; the Kootenai River Crossing realignment; and existing structures 25/1 to 26/1. A preconstruction survey of the three nests will be done to determine if nests are active. No timing restrictions would apply if nests are not active. 	During and after construction
<ul style="list-style-type: none"> • Peregrine falcon: Use of high intensity motorized disturbance (such as heavy equipment or helicopter use) will not occur between March 15 and August 31 within 0.5 miles of an active nest. This includes the areas between existing structures 26/5 to 27/3. The peregrine falcon nesting area west of Kootenai Falls will be surveyed in April-May 2009 to determine location of nest. If no nest is present timing restrictions would not apply. 	During construction
<ul style="list-style-type: none"> • Pileated woodpecker and flammulated owl: Use of high intensity motorized disturbance (such as heavy equipment or helicopter use) will not occur between April 1 and July 15 within the old growth stands near Bobtail Creek and northwest of the Big Horn Terrace subdivision. 	During construction
<ul style="list-style-type: none"> • Bighorn sheep: Use of high intensity motorized disturbance (such as heavy equipment or helicopter use) will not occur between April 1 and June 30 within the Kootenai Falls Wildlife Management Area during the bighorn sheep lambing period. This includes the areas along Sheep Range Road between existing structures 21/6 to 24/7. 	During construction
<ul style="list-style-type: none"> • Osprey: Use of high intensity motorized disturbance (such as heavy equipment or helicopter use) will not occur between April 1 and August 31 within the primary use area of an active nest. This includes the areas between: existing structures 27/7 to 28/6 (the current nest is located on top of structure 28/2); existing structures 22/1 to 23/1 (the current nest is located near structure 22/4). 	During construction
<ul style="list-style-type: none"> • Report and record bird strikes or electrocutions during regular line maintenance activities as resources and funding permit. 	After construction

Mitigation Measure	Time of Implementation
Fish, Amphibians, and Reptiles	
<ul style="list-style-type: none"> Implement any mitigation measures for white sturgeon and bull trout that may be required by the USFWS through Section 7 consultations for the Proposed Action. Measures could include provision of buffer zones to avoid sediment generated during construction from entering project area streams and leaving woody debris in certain areas. 	During construction
<ul style="list-style-type: none"> Implement Riparian Habitat Conservation Areas (RHCA) around all project area rivers, streams and wetlands located on Kootenai NF lands. For the following fish bearing streams, 300 feet on each side of the stream would be buffered: Kootenai River, Pipe Creek, Bobtail Creek, Quartz Creek, and China Creek. 	During construction
<ul style="list-style-type: none"> Remove trees within the RHCAs without the use of heavy equipment. 	During construction
<ul style="list-style-type: none"> Leave low growing brush species uncut within the RHCAs, if possible. 	During construction
<ul style="list-style-type: none"> Leave large-diameter trees felled within corridor RHCAs. This would leave recruitable (trees that are ready to fall into the stream) large woody debris within the RHCAs of project area streams. 	During construction
<ul style="list-style-type: none"> Conduct surveys for presence of Coeur d'Alene salamanders during wet weather in May or June during the year when transmission line construction would occur. The areas which have a high probability of occurrence are located on the south side of the Kootenai River in Section 18 (T31N, R32W) for the Kootenai River Crossing realignment and in Sections 13 and 14 (T31N, R33W) for the Kootenai River Crossing realignment and existing corridor. High probability areas would be searched in the immediate area planned for disturbance, such as structure locations. The outer boundary of the habitat areas will be identified, marked on the ground, and avoided. 	Prior to and during construction
Visual Resources	
<ul style="list-style-type: none"> Use existing vegetation and topography whenever possible to limit views of the line and structures. 	During design and construction
<ul style="list-style-type: none"> Preserve vegetation within the 80-foot or 100-foot-wide right-of-way that would not interfere with the conductor or maintenance access needs, such as low-growing shrubs. 	During construction
<ul style="list-style-type: none"> Locate construction staging and storage areas away from locations that would be clearly visible from Kootenai River Road or Highway 2. 	During design and construction
<ul style="list-style-type: none"> Colorize all steel structures a dark gray color. 	During design and construction
<ul style="list-style-type: none"> Use non-reflective conductors. 	During design and construction
<ul style="list-style-type: none"> Use non-reflective insulators (i.e., non-ceramic insulators or porcelain). 	During design and construction
<ul style="list-style-type: none"> Locate access roads within previously disturbed areas, wherever possible. 	During design and construction

Mitigation Measure	Time of Implementation
<ul style="list-style-type: none"> • Revegetate all disturbed areas with approved species. 	After construction
<ul style="list-style-type: none"> • Require that contractors maintain a clean construction site and that the corridor is kept free of litter after construction. 	During construction
Cultural Resources	
<ul style="list-style-type: none"> • Design the transmission line so that structure sites are placed to avoid cultural resources. 	During design
<ul style="list-style-type: none"> • Design new access roads to avoid cultural resources. 	During design
<ul style="list-style-type: none"> • Place geotextile fabric with rock/gravel overlay on the archaeological sites along Sheep Range Road to reduce or eliminate adverse impacts to those sites from vehicle traffic. 	During construction
<ul style="list-style-type: none"> • Improve the existing access road system in a manner that minimizes new roads and avoids cultural resource sites. If improvements are needed on existing access roads, such improvements would be limited to the existing roadbed if near a cultural resource site and would be confined to applying new material. No excavation would occur west of Black Eagle Rock on Sheep Range Road. 	During construction
<ul style="list-style-type: none"> • Excavation for roads will not occur within the known boundaries of cultural resource sites. 	During construction
<ul style="list-style-type: none"> • Remove the existing structures for the portion of existing transmission line that would be abandoned in the China Creek area by hand cutting off at the base. The remaining portion of the structures will then be removed by helicopter or lopped and scattered on the corridor. 	During construction
<ul style="list-style-type: none"> • Consult with the Kootenai NF, Montana State Historic Preservation Officer (SHPO), and the Confederated Salish and Kootenai Tribes (CSKT) Tribal Historic Preservation Officer (THPO) regarding National Register of Historic Places (NRHP) eligibility of cultural sites and Traditional Cultural Properties (TCPs). 	Prior to and during construction
<ul style="list-style-type: none"> • Develop an Inadvertent Discovery Plan that details crew member responsibilities for reporting in the event of a discovery during construction. 	Prior to construction
<ul style="list-style-type: none"> • Ensure tribal monitors from the CSKT and Kootenai Tribe of Idaho are present during excavation within prehistoric sites or TCPs and the Kootenai NF Archaeologist, if sites are on Kootenai NF lands. 	During construction
<ul style="list-style-type: none"> • Prevent unauthorized collection of cultural materials by ensuring a professional archaeologist and tribal monitor are present during any excavation within known sites. 	During construction
<ul style="list-style-type: none"> • Prepare a Mitigation Plan to protect sites if final placement of project elements results in unavoidable adverse impacts to a significant cultural resource. 	Prior to construction
<ul style="list-style-type: none"> • Stop work immediately and notify local law enforcement officials, appropriate BPA personnel, the Kootenai NF, Montana SHPO, and the CSKT THPO if cultural resources, either archaeological or historical materials, are discovered during construction activities. 	During construction

Mitigation Measure	Time of Implementation
<ul style="list-style-type: none"> Fall trees within known sites during the winter, on snow, if conditions permit. 	During construction
Recreation Resources	
<ul style="list-style-type: none"> Improve trail surfaces by applying small-diameter compactable crushed rock. 	During construction
<ul style="list-style-type: none"> Monitor gates to assure effectiveness as necessary. 	During and after construction
<ul style="list-style-type: none"> Develop a foot traffic plan for Bighorn Trail (Sheep Range Road) that minimizes restrictions to recreational use while still providing public safety. 	Prior to construction
Noise, Public Health and Safety	
<ul style="list-style-type: none"> Install sound-control devices on all construction equipment. 	Prior to construction
<ul style="list-style-type: none"> Muffled exhaust will be installed on all construction equipment and vehicles except helicopters. 	Prior to construction
<ul style="list-style-type: none"> Limit construction activities to daytime hours (i.e., only between 7:00 am and 7:00 pm). 	During construction
<ul style="list-style-type: none"> Notify landowners directly impacted along the corridor prior to construction activities, including blasting. 	Prior to construction
<ul style="list-style-type: none"> Prepare and maintain a safety plan in compliance with Montana requirements prior to starting construction. This plan will be kept on-site and will detail how to manage hazardous materials such as fuel, and how to respond to emergency situations. 	Prior to construction
<ul style="list-style-type: none"> Hold crew safety meetings during construction at the start of each workday to go over potential safety issues and concerns. 	During construction
<ul style="list-style-type: none"> Secure the site at the end of each workday to protect equipment and the general public. 	During construction
<ul style="list-style-type: none"> Train employees as necessary, in structure climbing, cardiopulmonary resuscitation, first aid, rescue techniques, and safety equipment inspection. 	Prior to construction
<ul style="list-style-type: none"> Fuel all highway-authorized vehicles off-site to minimize the risk of fire. Fueling of construction equipment that is transported to the site via truck and is not highway authorized will be done in accordance with regulated construction practices and state and local laws. Helicopters will be fueled and housed at local airfields or at staging areas. 	During construction
<ul style="list-style-type: none"> Ensure that helicopter pilots and contractors take into account public safety during flights. 	During construction
<ul style="list-style-type: none"> Ensure that safety measures for blasting will be consistent with state and local codes and regulations. All explosives will be removed from the work site at the end of the workday or placed under lock and key. 	During construction
<ul style="list-style-type: none"> Adhere to BPA's specifications for grounding fences and other objects on and near the existing and proposed rights-of-way during construction. 	During construction

Mitigation Measure	Time of Implementation
<ul style="list-style-type: none"> Construct and operate the rebuilt transmission line in accordance with the National Electrical Safety Code, as required by law. 	During and after construction
<ul style="list-style-type: none"> Restore reception quality if radio or television interference occurs as a result of the rebuilt transmission line. Reception will be as good as or better than before the interference. 	After construction
<ul style="list-style-type: none"> Carry fire suppression equipment including (but not limited to) shovels, buckets, and fire extinguishers on all operation and maintenance vehicles. 	During construction
<ul style="list-style-type: none"> Use established access roads during routine operation and maintenance activities. 	After construction
<ul style="list-style-type: none"> Clear vegetation according to BPA standards to avoid contact with transmission lines. 	During and after construction
<ul style="list-style-type: none"> Use pressure treated wood poles or poles treated with preservatives that do not contribute contaminants to nearby water bodies. 	During and after construction
<ul style="list-style-type: none"> Contact the appropriate BPA representative if hazardous materials, toxic substances, or petroleum products are discovered within the project area that would pose an immediate threat to human health or the environment. Other conditions such as large dump sites, drums of unknown substances, suspicious odors, stained soil, etc. will also be reported immediately to BPA. 	Prior to, during or after construction
Social and Economic Resources	
<ul style="list-style-type: none"> Compensate landowners at market value for any new land rights required for corridor easements or to acquire new, temporary or permanent access roads on private lands. (Mitigation measure also listed under Land Use) 	Prior to construction
Transportation	
<ul style="list-style-type: none"> Coordinate routing and scheduling of construction traffic with state and county road staff. 	Prior to and during construction
<ul style="list-style-type: none"> Employ traffic control flaggers and post warning signs of construction activity and merging traffic when necessary. 	During construction
<ul style="list-style-type: none"> Repair damage to roads caused by the project. 	After construction
<ul style="list-style-type: none"> Install gates on access roads when requested by property owners to reduce unauthorized use. 	After construction
<ul style="list-style-type: none"> Spray and seed access roads in order to reduce erosion and control noxious weeds. 	After construction
<ul style="list-style-type: none"> Protect cultural resources in the Kootenai River area by using borrowed fill material for road building instead of cut and fill practices. 	During construction
Air Quality	
<ul style="list-style-type: none"> Use water trucks to control dust during construction operations. 	During construction
<ul style="list-style-type: none"> Ensure construction vehicles travel at low speeds on gravel roads and at the construction sites to minimize dust. 	During construction

Mitigation Measure	Time of Implementation
<ul style="list-style-type: none"> • Comply with Montana State tailpipe emission standards for all on-road vehicles. 	During construction
<ul style="list-style-type: none"> • Use low sulfur fuel and subject to availability, ultra low sulfur diesel for all on-road diesel vehicles. 	During construction
<ul style="list-style-type: none"> • Ensure all vehicle engines are in good operating condition to minimize exhaust emissions. 	During construction
<ul style="list-style-type: none"> • Lop, chip, and scatter wood debris on site to decay. No burning of wood debris will occur as a result of the proposed activities. 	During construction
<ul style="list-style-type: none"> • Replant/reseed where needed, as soon as reasonably possible following construction activities. 	After construction
<ul style="list-style-type: none"> • Use of vehicles will be limited if data collected at Montana’s Department of Environmental Quality Libby Air Quality Monitoring Site indicates that the air quality is in the “Unhealthy” health effect category. Vehicle miles traveled will be limited on unpaved roads to the extent possible and consultation with the Montana DEQ Air Program staff will occur. 	During construction
<ul style="list-style-type: none"> • Stabilize construction entrances where construction traffic will access the project sites along Kootenai River Road, Highways 2 and 56 or any other paved roads. 	During construction
<ul style="list-style-type: none"> • Prevent tracking of mud and dirt onto paved roads or highways. Visible mud and dirt will be cleaned by hand from vehicle tires and treads using a broom, shovel, or stick as practical before vehicles leave the site. If any sediment is transported onto the paved road surface, it will be cleaned from the road immediately. 	During construction
<ul style="list-style-type: none"> • Manage and control dust and fugitive dust at temporary and permanent soil/spoil stockpile areas, construction vehicle travel ways, grading and footing excavation activities, staging and support locations using water or an approved chemical dust palliative. Dust palliatives approved for use must be non-toxic chemical stabilizers or other material that is not prohibited for ground surface or agricultural application by state and federal agencies or any applicable law or regulation. 	During construction