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Ashton/ Island Park
Ranger District

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Fall River Electric
Special Use Permit
Environmental Assessment

SUMMARY

The Ashton/Island Park Ranger District of the Caribou-Targhee National Forest is considering approval of a Special Use Permit for Fall River Electric to install a buried powerline to provide electrical services to a customer) in the Tom's Creek Subdivision. There have been four alternatives developed for the proposed project. Alternative 1 (No Action) would not approve the Special Use Permit and not bury the new powerline. Alternative 2 authorizes the Special Use Permit and allows for burying the powerline through the trees. Alternative 3 authorizes the Special Use Permit and allows for the burying of the powerline through the wet meadow. Alternative 4 (preferred alternative) authorizes the Special Use Permit and allows for the burying of the powerline through the trees, turning south along the existing Bonneville Power powerline easement, then east along Forest Service Road #333, then traveling north along Forest Service Road #183 to the southeast corner of the private parcel.

The project area is located on U.S. Forest Service (Forest Service) managed lands just south of the Buffalo River in Fremont County, Idaho. The nearest powerline connection point that is available to connect the private property to existing buried powerline is located along the Railroad Trail 001 west of the private property. In order to connect the private property to the existing powerline, Fall River Electric has submitted an application for a Special Use Permit to the Ashton-Island Park Ranger District. The proposed powerline would be buried to a depth of approximately 3 feet for all alternatives. The proposed powerline route associated with Alternatives 2 and 3 is approximately 2,100 feet in length on Forest Service lands. Alternative 4 is approximately 4,200 feet in length on Forest Service lands.

The purpose of the proposed action is for Fall River Electric to be able to install a powerline that would provide electricity to private residences which currently do not have a reliable electric service. The proposed action would benefit the private landowners within the Tom's Creek Subdivision by allowing them to connect to the current electrical grid. There would be no benefit to the Forest Service or general public.

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List of Acronyms

ACOE	Army Corps of Engineers
BMU	Bear Management Unit
BMPs	Best Management Practices
BCC	Birds of Conservation Concern
BCR	Bird Conservation Regions
BE	Biological Evaluation
BP	Bonneville Power
DBH	Diameter at Breast Height
ESA	Endangered Species Act
EA	Environmental Assessment
EO	Executive Order
FPA	Forest Plan Amendment
GMU	Game Management Unit
GYE	Greater Yellowstone Ecosystem
GBRZ	Grizzly Bear Recovery Zone
IDEQ	Idaho Department of Environmental Quality
MIS	Management Indicator Species
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OHV	Off Highway Vehicles
PCA	Primary Conservation Area
SHPO	State Historic Preservation Office

1 PURPOSE AND NEED

1.1 Document Structure

The U.S. Forest Service (Forest Service) has prepared this Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. This EA discloses the direct, indirect, and cumulative environmental impacts that would result from the proposed action and alternatives. The document is organized into four parts:

- *Purpose and Need:* This chapter includes information on the history of the project proposal, the purpose of and need for the project, and the proposal for achieving that purpose and need. This chapter also details how the Forest Service informed the public of the proposal and how the public responded.
- *Alternatives:* This chapter provides a more detailed description of the proposed action. There are four alternatives being considered including the no action alternative. The discussion in this chapter also includes possible mitigation measures. Finally, this chapter provides a summary table of the environmental consequences associated with each alternative.
- *Environmental Consequences:* This chapter describes the environmental effects of implementing the no action and proposed action alternatives. This analysis is organized by resource area. Within each section, the existing conditions are described first, followed by the effects of each alternative.
- *Consultation and Coordination:* This section provides a list of preparers and agencies consulted during the development of the EA.

Additional documentation, including more detailed analyses of project-area resources, may be found in the project planning record located at the Ashton/Island Park Ranger District Office in Ashton, Idaho.

1.2 Background

Fall River Electric has submitted an application for a Special Use Permit to install a new powerline across Forest Service lands. The Forest Service informed Fall River Electric that an EA would be required to analyze the potential impacts to the environment from the proposed action.

1.3 Purpose of and Need for Action

The Ashton/Island Park Ranger District is responding to an application submitted by Fall River Electric to obtain a Special Use Permit for installation of a buried powerline to provide electricity to a private landowner within the Tom’s Creek Subdivision. The purpose of the Special Use Permit application is to authorize to Fall River Electric to install a buried powerline on National Forest System Lands to provide power to private lands. The special use permit would be granted to Fall River Electric stating the conditions of powerline installation.

1.4 Proposed Action

Fall River Electric has submitted an application for a Special Use Permit that would allow them to install a buried powerline on Forest Service managed lands in Fremont County, Idaho (Township 13 North, Range 43 East, Section 24). The powerline is needed to provide power to a private residence. The powerline would be buried for its entire length from a connection point along the Railroad Trail 001 to a parcel of private land located east of Railroad Trail 001 (Figure 1).

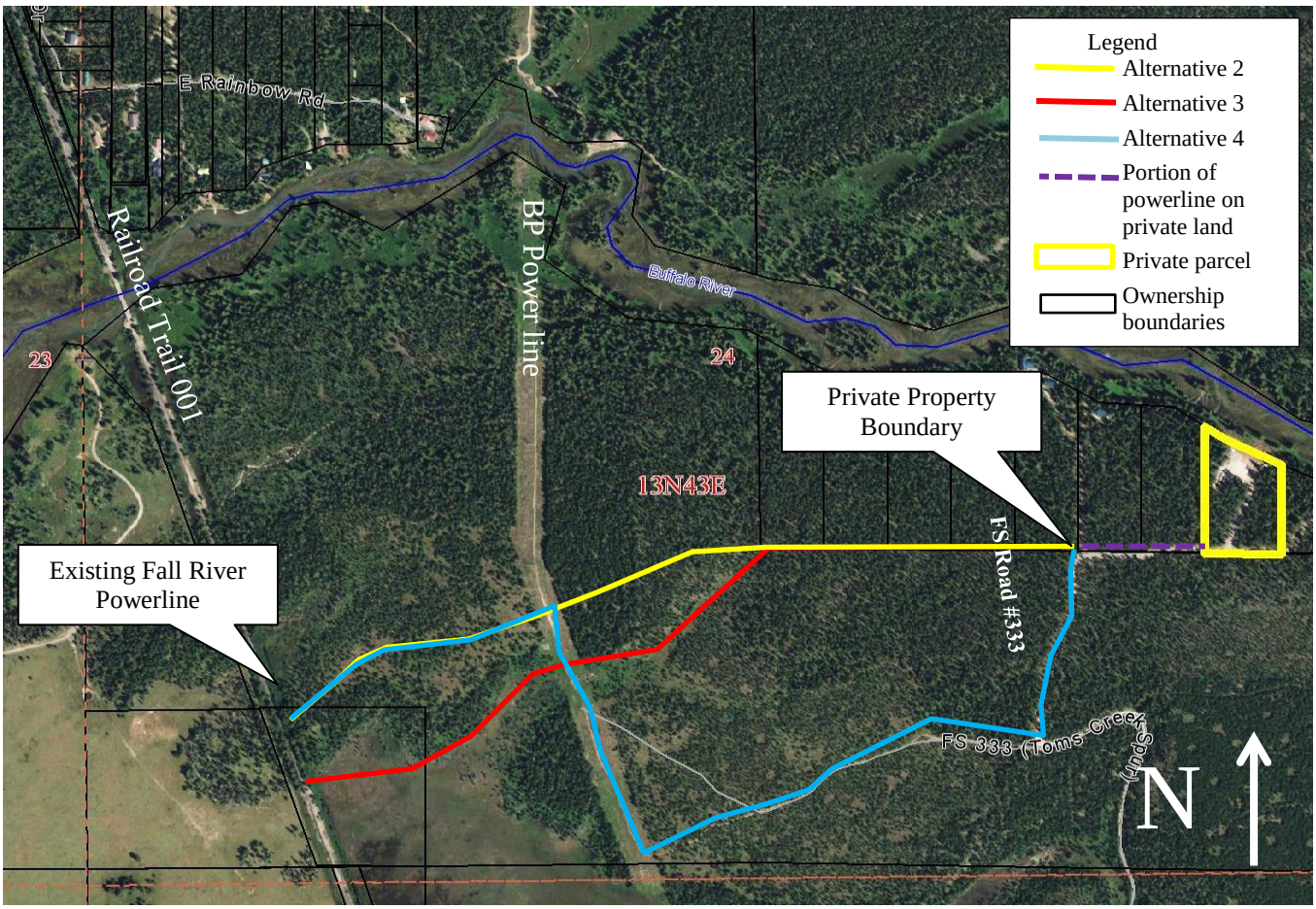

Figure 1. Proposed Project Location.

1.5 Decision Framework

Given the purpose and need, the District Ranger will review the proposed alternatives in order to make the following decisions:

1. Which of the proposed alternatives will be premited to be implemented or how alternatives would be modified to allow for implementation.
2. What mitigation measures and monitoring requirements will be required.

1.6 Public Involvement

The proposal was provided to the public, other agencies and organizations, including the Shoshone-Bannock Tribes for comment during a public scoping period. Scoping letters were mailed January 12, 2015 requesting comments on the project by February 12, 2015. Two

comments were received during the scoping period from cooperating agencies which stated that they did not have any objections to the proposed action. The Interdisciplinary Team developed the list of issues to address in this analysis based on that effort as well as internal Forest Service discussions. The issues identified are described below.

1.7 Issues

Issues serve to highlight effects or unintended consequences that may occur from the proposed action and no action alternatives, giving opportunities during the analysis to reduce adverse effects and compare trade-offs for the decision maker and public to understand. The proposed route was surveyed and a list of preliminary issues was developed in conjunction with Forest Service resource managers. The District Ranger approved the following six issues to be analyzed by the Interdisciplinary Team in this environmental analysis.

1. Effects to vegetation, including concerns about invasive species, are analyzed because installation of the buried powerline would involve ground disturbance that would remove some vegetation. The effects analysis for vegetation resources considers the potential of the proposed project to: harm or destroy threatened, endangered, candidate, or sensitive plants; negatively affect suitable habitat that may be present in the project area; and facilitate invasion or spread of noxious or invasive nonnative weeds.
2. Effects to soil resources are analyzed because installation of the buried powerline would result in soil disturbance. The effects analysis for soil resources considers the potential of the proposed project to increase risk of soil disturbance including surface erosion and compaction in the project area.
3. Effects to wildlife are analyzed because the proposed project could disturb wildlife during construction activities. The effects analysis for wildlife resources focuses on anticipated changes to habitat extent, quality and condition that would occur as a result of the proposed project on federally protected species, Region 4 sensitive species, species of interest, and Management Indicator Species (MIS).
4. Effects to cultural resources are analyzed because construction activities have the potential to disturb these resources. The effects analysis for cultural resources considers the potential of the proposed project to impact prehistoric or historic sites within the project area.
5. Effects to wetlands and water resources are analyzed because of the potential for the proposed project to affect these resources. The effects analysis for wetland and water resources considers the potential of the proposed project to impact wetlands, riparian areas, or hydrological processes within the project area.
6. Effects to Wild and Scenic Rivers are analyzed because of the potential for the proposed project to affect areas within the designated quarter mile buffer around the Buffalo River, which is designated as a Wild and Scenic River.

2 ALTERNATIVES

This chapter describes and compares the alternatives considered for the Fall River Electric Special Use Permit project. It includes a description of each alternative considered. This section

also presents the alternatives in comparative form, defining the differences between each alternative and providing a clear basis for choice among options by the decision maker and the public.

2.1 Description of Alternatives

2.1.1 Alternative 1 – No Action

The No Action Alternative provides a baseline against which to measure relative changes that would result from implementation of the action alternative. Under this alternative, the proposed project would not take place. There would be no installation of the powerline between Railroad Trail 001 and private property associated with Tom's Creek Subdivision. There would continue to be no source of power for the private parcel, and the private landowner would have to install a generator system to supply electricity to the residence or find an alternate route to supply power to the private parcel. This alternative is consistent with 1997 Revised Forest Plan direction.

2.1.2 Alternative 2

The proposed powerline would be buried to a depth of 3 feet, traveling east 1,140 feet from the junction box along Railroad Trail 001(Photo 3) through a stand of lodgepole pine (Photo 1) to a point where it intersects the existing Bonneville Power (BP) easement. From this point it would continue east across Forest Service land through a revegetated clear-cut area (Photo 2) until it reaches the southwest corner of a row of privately owned parcels. At the southwest corner, the powerline intersects an existing Forest Service easement which is located along the southern edge of the privately owned parcels. At this point it would continue east until it reaches the parcel owned by the special use proponent. The total distance of the proposed powerline would be approximately 3,950 feet of which 2,060 feet would be located on Forest Service land (see Figure 1). This alternative would require the removal of trees to enable the installation of the powerline. The proposed route would impact a portion of eight private parcels along the existing Forest Service easement.

Installation of the powerline would require a small bulldozer equipped with a rip plow and a backhoe. Cable and other required equipment would be brought to the work site by pickup and utility trucks. Approximately three to four people would be on-site during construction. The route may be pre-ripped using a rip plow in some locations to facilitate installation of the cable where lava rock is present. The project area is predominantly lodgepole pine habitat, although some Douglas fir and aspen are present. This alternative is consistent with 1997 Revised Forest Plan direction.

2.1.3 Alternative 3

As with Alternative 2, the proposed powerline would be buried to a depth of 3 feet, traveling east from Railroad Trail 001(Photo 3), along the northern edge of an open wet meadow (Photo 4) to a point where it intersects the existing BP easement. From this point it would turn slightly north to intersect the southwest corner of the private parcels discussed under Alternative 2 (Photo 2) at which point it would follow the same route along the Forest Service easement. The total distance of the proposed powerline would be approximately 4,015 feet with 2,280 feet occurring on Forest Service land (see Figure 1). This alternative would require the removal of trees and disturbance of wetland habitat to enable the installation of the powerline. The proposed route would impact a portion of eight private parcels along the existing Forest Service easement. The

project area is predominantly lodgepole pine habitat, although some Douglas fir and aspen are present. This alternative is consistent with 1997 Revised Forest Plan direction.

2.1.4 Alternative 4

Under Alternative 4, Fall River Electric would bury the proposed power line to a depth of 3 feet, traveling east 1,140 feet from the junction box along Railroad Trail 001 (Photo 3), through a stand of lodgepole pine (Photo 1) to a point where it intersects the existing BP easement. At this point the buried powerline would turn south along the western edge of the BP powerline easement boundary. At the intersection with Forest Service Road 333, the powerline would turn east and be installed along the shoulder of Forest Service Road 333. At the intersection with Forest Service Road 188, the powerline would turn north until it reaches the southwest corner of the private parcel. This alternative would require the installation of approximately 5,325 feet of powerline (see Figure 1). After leaving Forest Service lands the powerline would connect to the private lands, and the installation of the powerline on private land is not addressed under this analysis.

No private lands would be affected by the implementation of Alternative 4 up to the point where Forest Service Road 188 enters Toms Creek Subdivision. Installation equipment would be the same as described for the other alternatives. The project area is predominantly lodgepole pine habitat which has been cleared for the existing roads and trails.

Photo 1. View of proposed route associated with Alternative 2 facing west from overhead powerline access road.

Photo 2. View of past clearcut area which occurs between the overhead powerline and parcel of private land facing east.

Photo 3. View of the Railroad Trail 001 facing north.

Photo 4. View of the wet meadow facing west toward Railroad Trail 001 (showing proposed route of Alternative 3).

2.1.4.1 Design Features Associated with Alternatives 2, 3, and 4

A number of best management practices (BMPs) and other mitigation measures that are typically incorporated as standard operating procedures would be implemented as part of this project to reduce or eliminate the potential for adverse impacts to the human and natural environment. Although no substantial impacts are anticipated from implementation of the proposed project, the following measures have been identified to enhance protection of certain resources that could potentially be affected by installation of the proposed powerline and would be implemented as part of the proposed project.

- To help limit the spread and establishment of a noxious weed community within the area disturbed during implementation of the project, prompt seeding shall be required. Seeding shall occur at the appropriate season following the completion of construction activities and be of a mix recommended by the Forest Botanist. Certified "noxious weed-free" seed shall be used on all areas to be seeded. In addition, treatment of existing weeds along the route shall occur prior to ground disturbing activities to prevent their spread. Any new infestations would be treated following disturbance to prevent additional spread or introduction of noxious weeds.
- Prior to initiation of construction operations, vehicles should be washed (exterior and under carriage) to remove weed seeds prior to entering National Forest lands (FS 990-A, Road 3) to reduce the risk of the spread of noxious weeds.
- Schedule powerline installation during periods when the probabilities for rain and runoff are low. Avoid all ground disturbing activities when areas are wet to avoid detrimental rutting and displacement of soil resource (FS 990-A, Road 2). Rutting should not exceed 6 inches in depth.
- Minimize the disturbance area and re-grade disturbed areas back to natural conditions.
- Disturbed areas would be covered with approved ground cover such as slash or the disturbed areas would be re-vegetated to minimize erosion.

- No new roads or trails shall be constructed. Existing roads and trails shall be maintained to applicable standards. Damage to existing roads and trails, or any associated improvements, such as ditches, culverts, signs, and underground utilities and facilities, shall be repaired to conditions equal to or superior to those prior to any damage or disturbance.
- To minimize rutting and compaction, timber clearing would not occur unless soils are dry or frozen as determined by the Forest Service (practice 13.06).
- Timber removal would avoid wet areas.
- To minimize rutting and compaction, postpone off-road tractor use when soil moisture is high and use is causing soil disturbance consistent with Soil Disturbance Class 3 (defined in the Soil Disturbance Field Guide (Page-Dumroese et al. 2009).Ensure that the powerline corridor does not become an unauthorized motorized route by blocking the entrances to discourage motorized use. Properly close, obliterate, or scatter large woody debris around the powerline entrances to open roads or trails.
- A minimum of one vehicle should contain a spill mitigation kit of adequate capacity to address spills of gas, diesel, oil, hydraulic fluid, chemicals, etc. (FS 990-A Facilities 6)
- Whenever possible, do not excavate shrub/grass roots to provide for stabilization. (FS 990-A, Road 3)
- Disturbed areas would be rehabilitated and covered with logs or other items which would discourage the use of the powerline route for recreation activities such as an off highway vehicles (OHV) trail.
- Trees which need to be removed to allow access to equipment would remain on site to act as slash. This slash would be positioned so that it is in direct contact with the ground surface and not suspended by branches, to aid in soil protection.
- Vehicle staging, cleaning, maintenance, refueling, and fuel storage will be 150 feet or more from any stream, waterbody, or wetland and in a location where surface runoff from the site is incapable of being delivered to perennial or intermittent channels.
- A field survey of the proposed routes was conducted to identify archaeological resources that may occur in the powerline corridor (North Wind 2014). In the event that any inadvertent discovery of cultural resources is made during construction, construction activities shall immediately cease and the Forest archeologist shall be notified to make the determination of appropriate measures to identify, evaluate, and treat these discoveries.
- All lines shall be buried except where aboveground tie-ins to the existing structure are required.
- Make every effort to keep proposed activities within areas already disturbed by existing infrastructure (same corridor and right of ways) (FS-990a 2012).
- Emergency cessation or modification of activities will occur when those activities are in conflict with grizzly bear management objectives (1997 RFP Rx 5.3.5 Standard page III-149).

- All personnel involved with on the ground implementation of the project must comply with the food storage order, Order Number 04-15-0063, to protect grizzly bears. These include items found in Exhibit A #4. "Acceptably stored" means: a and b:

    a) Stored in a bear-resistant container certified through the Interagency Grizzly Bear Committee Courtesy Inspection Program. A container may be certified by the local district ranger or their designated representative(s) if it meets the Interagency Grizzly Bear Committee criteria, or

    b) Stored in a closed vehicle where the storage compartment is constructed of solid, non-pliable material that, when secured, will have no openings, hinges, lids, or coverings that would allow a bear to gain entry by breaking, bending, tearing, biting, or pulling with its claws (any windows in the vehicle must be closed).

2.1.5 Other Alternatives Considered

The four alternatives presented above were deemed the most logical alternatives for the installation of the proposed powerline. One additional alternative was considered but eliminated from further consideration. This included using an unauthorized OHV trail as the installation route between the Railroad Trail 001 and the BP powerline. This alternative was dismissed due to the extensive wetlands present along this route.

2.2 Comparison of Alternatives

This section provides a summary of the effects of implementing each alternative. Information in Table 1 is focused on activities and effects where different levels of effects or outputs can be distinguished quantitatively or qualitatively among alternatives.

Table 1. Comparison of Effects between Alternatives.

Indicator	Alternative 1 No Action	Alternative 2	Alternative 3	Alternative 4
Provide power to the private parcel	No change	Yes, a powerline would be installed which would enter the private parcel in the southwest corner and meets the purpose and need.	Yes, a powerline would be installed which would enter the private parcel in the southwest corner and meets the purpose and need.	Yes, a powerline would be installed which would enter the private parcel in the southeast corner and meets the purpose and need.
Vegetation	No change; existing noxious weeds may spread if left untreated	No impacts to sensitive plant species; multiple saplings, and middle age trees would be cut; noxious weeds would be treated	No impacts to sensitive plant species; multiple saplings, and middle age trees would be cut; noxious weeds would be treated	No impacts to sensitive plant species; multiple saplings, and middle age trees would be cut; fewer trees would be cut than associated with Alternatives 2 and 3; noxious weeds would be treated

Soil resources	No effect	Small temporary disturbance where rip plowing occurs but no increased erosion or soil loss	Small temporary disturbance where rip plowing occurs but no increased erosion or soil loss	Temporary disturbance where rip plowing occurs but no increased erosion or soil loss. Impacts from this alternative would be almost twice that of Alternatives 2 and 3
Fish and Wildlife resources	No effect	Short-term disturbance effects could result; no-long term effects to wildlife	Short-term disturbance effects could result; no-long term effects to wildlife	Short-term disturbance effects could result; no-long term effects to wildlife
Cultural resources	No effect	No effect	No effect	No effect
Recreation	No effect	Short-term disturbance effects could result during connection to powerline along Forest Service Trail 001; no-long term effects to recreation.	Short-term disturbance effects could result during connection to powerline along Forest Service Trail 001; no-long term effects to recreation.	Short-term disturbance effects could result during connection to powerline along Forest Service Trail 001; no-long term effects to recreation.
Wetlands and Water Resources	No effect	There are no wetlands or surface waters along the proposed route	Temporary disturbance of wet meadow wetlands.	There are no wetlands or surface waters along the proposed route
Wild and Scenic River	No effect	The proposed route would be situated within an area which is proposed for designation as a Proposed Scenic River.	Portions of the proposed route would be situated within an area which is proposed for designation as a Proposed Scenic River.	The route associated with Alternative 4 is outside of the quarter mile buffer associated with the Proposed Scenic River.

3 AFFECTED ENVIRONMENTA AND ENVIRONMENTAL CONSEQUENCES

This section summarizes the physical, biological, social and economic environments of the affected project area and the potential changes to those environments due to implementation of the alternatives. It also presents the scientific and analytical basis for comparison of alternatives presented in Table 1 in Chapter 2 above. Effects considered in this analysis include:

- Vegetation including sensitive, threatened, and endangered plants, and invasive species.
- Soils.
- Fish and wildlife including sensitive, threatened, and endangered species.
- Cultural resources.
- Recreation.
- Wild and Scenic Rivers.
- Wetlands and water quality.

Direct, indirect, and cumulative impacts are considered in the analysis. Cumulative impacts result "from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7). The past, present, and future actions in the project area are fairly limited and include access road and powerline construction, forest management activities, livestock grazing, and dispersed recreation.

3.1 Vegetation

3.1.1 Existing Conditions

The project area is comprised primarily of a forested ecosystem with a mountain shrub understory and open wet meadow habitats. The eastern portion of the proposed project area has been previously disturbed when it was harvested using a clear cut method then replanted. The forested habitat along all of the proposed routes is comprised primarily of lodgepole pine (*Pinus contorta*), and some scattered aspen (*Populus tremuloides*) and Douglas fir (*Pseudotsuga menziesii*). An understory of shrubs, forbs, and grasses includes snowberry (*Symphori carpos* spp.), willow (*Salix* spp.), yarrow (*Achillea millefolium*), Sandberg bluegrass (*Poa secunda*), timothy (*Phleum pretense*), lupine (*Lupinus* spp.), arrow-leaf balsamroot (*Balsamorhiza sagittata*) and a few other forbs and grasses.

The wet meadow habitat located along the southern edge of Alternative 3 was dominated by beaked sedge (*Carex utriculata*) and Baltic rush (*Juncus balticus*) with areas of reed canarygrass (*Phalaris arundinacea*), Sandberg bluegrass and other grasses. The edges of the wet meadow supported some quaking aspen, and the remnants of encroaching conifers which were unable to survive due to high water levels. There was a narrow strip of wetland habitat along Railroad Trail 001 which appeared to be a result of excavation of material to complete the railbed; this habitat was dominated by willow and Rocky Mountain cow-lily (*Nuphar lutea*).

Executive Order 13122, Invasive Species, states that Federal agencies are to prevent the introduction of invasive species, provide for their control, provide for restoration of native species and habitat conditions in ecosystems that have been invaded, and minimize the economic, ecological, and human health impacts that invasive species cause. Invasive species are of concern because they can produce significant changes to vegetation, composition, structure, or ecosystem function by outcompeting native vegetation. Discovered populations of invasive or noxious species would be treated prior to ground disturbing activities to prevent the spread of seeds.

A survey of the project area was conducted in August 2014. There is no suitable habitat for the federally listed Ute ladies'-tresses (*Spiranthes diluvialis*) which grows in wetland habitats adjacent to flowing waters, or Forest Service sensitive plants within the project area, and no individuals or remnants of individuals were observed.

3.1.2 Environmental Effects

3.1.2.1 Alternative 1 – No Action

Direct and Indirect Effects

Under the No Action Alternative a new powerline would not be installed. There would be no disturbance of vegetation within any of the proposed routes on Forest Service land. Therefore, the establishment and risk of spread of noxious weeds and invasive species would not increase beyond those that currently exist within the project area and there would be no direct or indirect impacts to vegetation.

Cumulative Effects

Because the No Action Alternative would not result in effects to vegetation, there would be no potential for the alternative to contribute to cumulative effects on vegetation.

3.1.2.2 Alternative 2

Direct and Indirect Effects

The installation of a powerline would affect vegetation within the project area. The impacts would occur along the proposed route and would include vegetation removal and crushing. Less than 25 young lodgepole pine trees (6 inch or less diameter at breast height [dbh]) would be removed along the route to allow access by construction equipment. Driving of construction equipment along the proposed route would result in the crushing of understory vegetation.

All temporary surface disturbance activities associated with installation of the powerline may lead to new invasions or increased rates of spread of invasive, non-native weed species. In areas where ground disturbance is substantial, aggressive non-native species could become established. Canada thistle that is present in the general area would be the species most likely to become established within the newly disturbed sites. However, construction activities could also result in an introduction of new species to the area. Due to the small amount of disturbance that would occur in vegetated areas and the mitigation measures that would be employed to revegetate the disturbed areas, the risk of exotic species invasion is expected to be minor. To mitigate vegetation impacts, removal or disturbance of vegetation along the access route would be limited to the extent possible. Disturbed areas would be allowed to re-vegetate naturally or by seeding with a seed mix approved by the Forest Service botanist. The installation contractor would be

required to clean all vehicles accessing the installation route prior to the start of work. Cleaning vehicles prior to entering the project area and reseeding disturbed areas with a Forest Service seed mix would reduce the risk of spread of invasive or noxious species. Any new infestations would be treated following disturbance to prevent additional spread or introduction of noxious weeds.

There are no federally listed (i.e., threatened or endangered) plant species protected by the Endangered Species Act (ESA) or Forest Service sensitive plants present along the proposed route. During the August 2014 field surveys, no suitable habitat for the sensitive species with potential to occur in the project area was observed, and no individuals or remnants of individuals were observed. Therefore, installation of the powerline would not impact special status individuals or populations, and would not cause any species to trend toward the need for further protection. No further surveys for sensitive plants are anticipated to be necessary within the project area prior to installation activities.

Cumulative Effects

The potential for cumulative effects would be proportional to the amount of ground disturbance and native vegetation removal within the project area. No reasonably foreseeable future actions within the project area have been identified that have the potential to contribute to cumulative effects. Therefore, cumulative impacts to vegetation would be negligible.

3.1.2.3 Alternative 3

Direct and Indirect Effects

The installation of a powerline would affect vegetation within the project area. The impacts would occur along the proposed route and would include vegetation removal and crushing. Less than 10 young lodgepole pine trees (6 inch or less dbh) would be removed along the route to allow access by construction equipment. Driving of construction equipment along the proposed route would result in the crushing of understory vegetation. This alternative would also result in impacts to wetland vegetation and habitat. Implementation of Alternative 3 would impact wetland habitats, through disturbance of hydrophytic vegetation species.

All temporary surface disturbance activities associated with installation of the powerline may lead to new invasions or increased rates of spread of invasive, non-native weed species as discussed under Alternative 2. The same risks of infestation and mitigations as discussed under Alternative 2 would also apply for Alternative 3.

There are no federally listed (i.e., threatened or endangered) plant species protected by the ESA or Forest Service sensitive plants present along the proposed route. During the August 2014 field surveys, no suitable habitat for the sensitive species with potential to occur in the project area was observed, and no individuals or remnants of individuals were observed. Therefore, installation of the powerline would not impact special status individuals or populations, and would not cause any species to trend toward the need for further protection. No further surveys for sensitive plants are anticipated to be necessary within the project area prior to installation activities.

Cumulative Effects

The potential for cumulative effects would be proportional to the amount of ground disturbance and native vegetation removal within the project area. No reasonably foreseeable future actions

within the project area have been identified that have the potential to contribute to cumulative effects. Therefore, cumulative impacts to vegetation would be negligible.

3.1.2.4 Alternative 4

Direct and Indirect Effects

The installation of a powerline under Alternative 4 would result in greater ground disturbance due to the increased length of powerline to be installed; however, there would be less impact to vegetation because the majority of the route associated with Alternative 4 occurs in previously disturbed areas. The impacts associated with installation would include vegetation removal and crushing, and this alternative would remove less than 10 young trees (approximately 6 inch dbh). Driving of construction equipment along the proposed route would result in the crushing of understory vegetation which occurs along the route.

All temporary surface disturbance activities associated with installation of the powerline may lead to new invasions or increased rates of spread of invasive, non-native weed species as discussed under Alternative 2. The same risks of infestation and mitigations as discussed under Alternative 2 would also apply for Alternative 4.

There are no federally listed (i.e., threatened or endangered) plant species protected by the ESA or Forest Service sensitive plants present along the proposed route. During the August 2014 field surveys, no suitable habitat for the sensitive species with potential to occur in the project area was observed, and no individuals or remnants of individuals were observed. Therefore, installation of the powerline would not impact special status individuals or populations, and would not cause any species to trend toward the need for further protection. No further surveys for sensitive plants are anticipated to be necessary within the project area prior to installation activities.

Cumulative Effects

The potential for cumulative effects would be proportional to the amount of ground disturbance and native vegetation removal within the project area. No reasonably foreseeable future actions within the project area have been identified that have the potential to contribute to cumulative effects. Therefore, cumulative impacts to vegetation would be negligible.

3.2 Soils

3.2.1 Existing Conditions

The project area is located on the flats of the Island Park Caldera, east of Highway 20. The Island Park Caldera that encompasses the project area was formed by the collapse of a larger rhyolite shield volcano. Following the collapse, volcanic activity continued resulting in basalt flows covering much of the caldera floor (USDA Forest Service 2005). The entire area has been overlaid with windblown silts varying in thickness. There are two soil types identified as occurring along the proposed route. These include: Map Unit 1700-ABLA/VASC, CARU Koffgo, 4 to 15 percent slopes, and Map Unit 2040-PICO Perfa-ABLA/CACA4, CACA4 Bootjack association, 0 to 4 percent slopes(USDA NRCS 2012). Map Unit 1700 soils are derived from Loess and mixed alluvium over Colluvium derived from igneous rock. These soils are well drained, and are shallow with a low water capacity. These soils occur primarily in the forested habitat and are comprised of ashy silt loam, gravelly silt loam, extremely cobbly sandy loam, and cobbles.

Soils associated with Map Unit 2040 are derived from mixed alluvium. These soils vary from poorly drained to well drained, and are moderately deep with a very low to low water capacity. Perfa, Pico soils are comprised of sandy loam in the upper 12 inches and gravelly coarse sand between 12 and 62 inches and the Bootjack ABLA/CACA4, CACA soils are a composition of silt loam overlaying loam that overlays stratified fine sand to coarse sand. Both soil types are overlain with moderately decomposed plant material (USDA NRCS 2012).

To overcome the limitations of the shallow soils or presence of basalt rock, proposed construction areas would be pre-ripped using a rip plow, backhoe, and/or vibratory hammer connected to a backhoe in some locations to facilitate installation of the cable. The flat topography of the terrain reduces the risk of water erosion; and implementation of BMPs and other mitigation measures would further limit the risks of impacts associated with water erosion. There are no prime or unique farmlands in the project area.

3.2.2 Environmental Effects

3.2.2.1 Alternative 1 – No Action

Direct and Indirect Effects

Under the No Action Alternative, the Forest Service would not issue the permit for the installation of the proposed powerline. The existing condition would remain unchanged under the No Action Alternative, allowing existing processes above and below ground to continue.

The No Action Alternative would cause no soil compaction, rills, gullies, or soil displacement. Debris from dead trees and natural pruning of live trees would continue to accumulate and contribute to soil productivity under this alternative. Soil compaction along Forest Service Trail 001, Forest Service Road 333 and Forest Service Road 183 would continue to exist.

Cumulative Effects

Because the No Action Alternative would not result in impacts to the soil resource there is no potential for this alternative to contribute to cumulative effects.

3.2.2.2 Alternative 2

Direct and Indirect Effects

Soil disturbance would occur as a result of installation of the buried powerline. The proposed route associated with Alternative 2 would impact soils associated with Map Unit 1700. Effects to the soil resource from the proposed project include increased potential for rutting, erosion and compaction by construction activities.

Soil rutting from installation of the proposed project can occur within the project area. Soil characteristics within the project area have a severe susceptibility to the occurrence of ruts. Adverse rutting effects include decreased porosity and increased erosion due to channelization of surface water runoff within ruts. However, implementation of project design features, including installation only when soils are adequately dry, would reduce potential effects related to soil rutting. The risk of compaction is associated with the use of tracked equipment which would disturb the soils during the installation of the powerline. The combined area of potential compaction under the tracks of the equipment would be approximately 4 feet wide for the length of the project area, impacting approximately 0.36 acres. It is estimated that the construction methods proposed (i.e., rip plow and direct burial) would result in a disturbance corridor that is

less than 3 feet wide. Using that conservative estimate the maximum amount of disturbance would be approximately 0.27 acres. Overall there would be 0.63 acres of disturbance associated with this alternative.

Disturbance of the soils associated with installation of the powerline would temporarily decrease vegetation cover and has the potential to increase erosion until vegetation becomes reestablished.

Standard construction BMPs for minimizing impacts on soil resources would be employed during installation. These would include practices such as minimizing the construction footprint to the extent possible and protecting undisturbed areas with silt fencing and straw bales if needed. To mitigate the risk of erosion, removal of vegetation would be limited as much as possible to reduce the amount of soils disturbed during construction. Following construction, all temporarily disturbed areas would be reseeded using a seed mix approved by the Forest Botanist to lessen the risk of soil erosion. Additional project specific BMPs would be identified after coordination with the Forest Service and before implementation of the project if conditions beyond those normally experienced are anticipated.

Cumulative Effects

As with impacts to vegetation, potential for cumulative effects would be proportional to the amount of ground disturbance and length of the powerline to be installed. No reasonably foreseeable future actions within the project area have been identified that have the potential to contribute to cumulative effects. Therefore, cumulative impacts to vegetation would be negligible.

3.2.2.3 Alternative 3

Direct and Indirect Effects

Soil disturbance would occur as a result of installation of the buried powerline along the route associated with Alternative 3. The proposed route associated with Alternative 3 would impact soils associated with both Map Unit 1700 and Map Unit 2040. These impacts are anticipated to be the same as those discussed for Alternative 2 because the length of the powerline is similar for both alternatives. The impacts to soils in the wetland area on the western side of the project area associated with this alternative are anticipated to take longer to recover. This is related to the higher soil moisture content in the wetland area which would cause equipment to sink deeper in the soils. Soil rutting from installation of the proposed project can occur within the route associated with Alternative 3. Soil characteristics within the route associated with Alternative 3 have a severe susceptibility to the occurrence of ruts. Adverse rutting effects include decreased porosity and increased erosion due to channelization of surface water runoff within ruts. The combined area of potential compaction under the tracks of the equipment would impact approximately 0.37 acres. It is estimated that the construction methods proposed (i.e., rip plow and direct burial) would result in a disturbance of approximately 0.28 acres. Overall there would be 0.65 acres of disturbance associated with this alternative.

Disturbance of the soils associated with installation of the powerline would temporarily decrease vegetation cover and has the potential to increase erosion until vegetation becomes reestablished. As with Alternative 2 Standard construction BMPs for minimizing impacts on soil resources would be employed during installation.

Cumulative Effects

As with impacts to vegetation, potential for cumulative effects would be proportional to the amount of ground disturbance and length of the powerline to be installed.

No reasonably foreseeable future actions within the project area have been identified that have the potential to contribute to cumulative effects. The proposed project is not anticipated to contribute further to the network of roads, soil compaction, organic matter removal or displacement, loss of woody residue, and dispersed recreation. No other projects are planned near the project area which would cumulatively impact soils. The existing BP powerline and Forest Service Trail 001 have previously impacted soils within the project area. Cumulative impacts to vegetation would be negligible.

3.2.2.4 Alternative 4

Direct and Indirect Effects

The act of burying the powerline and the associated tree removal within the proposed project area would result in the disturbance of soils. Soils within the project area have characteristics which cause them to have a moderate risk of erosion. This rating is based on the soil characteristics which would be altered once soils are exposed due to powerline installation activities. Installation would be conducted in such a way as to limit tree removal and soil disturbance. By leaving the majority of the understory vegetation species in place during implementation of the proposed project the amount of soils which are exposed would be limited thus reducing the risk of erosion activity on these soils to slight. The topography within the project area is also relatively flat (1 to 2 percent slopes) which would limit the potential for erosion associated with runoff.

Soil rutting from installation of the proposed project can occur within the project area. Soil characteristics within the project area have a severe susceptibility to the occurrence of ruts. Adverse rutting effects include decreased porosity and increased erosion due to channelization of surface water runoff within ruts. However, implementation of project design features, including installation only when soils are adequately dry, would reduce potential effects related to soil rutting.

Soil compaction can result when heavy equipment (such as a tracked cable puller) is being used to pull in the buried powerline. Soil characteristics within the project area have a "low resistance" to compaction. However, implementation of project design features including installation only when soils are adequately dry would reduce potential effects related to soil compaction.

Cumulative Effects

To the extent possible the proposed powerline will be pulled in using the appropriate equipment to lessen the amount of potential ground disturbance. There is the potential that small segments of the powerline would need to be installed via trenching which would result in greater ground disturbance in these areas. In areas where trenching is required the width and depth of the trench will be kept at a minimum to reduce the amount of soils disturbance.

The proposed project is not anticipated to contribute further to the network of roads, soil compaction, organic matter removal or displacement, loss of woody residue, and dispersed recreation which these other activities have caused. No other projects are planned near the project area which would cumulatively impact soils. The existing BP powerline, Forest Service

Trail 001, Forest Service Road 333, and Forest Service Road 183 have previously impacted soils within the project area. The installation of the proposed powerline would have a temporary impact on 5,325 feet with an approximate width of 8 feet, resulting in roughly 0.98 acres of soil disturbance in the area. Cumulative impacts to vegetation would be negligible.

3.3 Fish and Wildlife

3.3.1 Existing Conditions

There are three categories of wildlife species that were analyzed for this project. The first category contains the threatened, endangered, and candidate species designated by the U.S. Fish and Wildlife Service under the ESA. There are four such wildlife species in Fremont County (Canada lynx (*Lynx canadensis*; threatened), grizzly bear (*Ursus arctos horribilis*; threatened), yellow-billed cuckoo (*Coccyzus americanus*; candidate), and greater sage-grouse (*Centrocercus urophasianus*; candidate)). The second category consists of the 20 Forest Service sensitive species present on the Targhee National Forest. Sensitive species are designated by the regional forester on a forest-wide basis under the National Forest Management Act. The third category contains the approximately 150 migratory bird species that breed on the forest, including the Birds of Conservation Concern (BCC) designated by the U.S. Fish and Wildlife Service. Migratory birds are protected by the Migratory Bird Treaty Act.

Both a biological assessment addressing species protected under the ESA (Derusseau 2015) and a biological evaluation (BE) addressing Forest Service special status species (Derusseau 2015) have been completed and are on file at the Ashton/Island Park Ranger District Office. These two documents were summarized and combined in a wildlife report which also included information on Forest Service MIS; this report is also on file at the District Office.

Only those species that were determined to be affected by the project are discussed further. Excerpts of the analysis of effects for these species from the Wildlife Specialist Reports (Derusseau 2015) are included below to address effects (direct, indirect, and cumulative) of the alternatives. Refer to the biological assessment (species associated with the ESA) and biological evaluation (all other species and migratory birds), as appropriate, for those species that were determined to not be affected by the project.

Grizzly Bear (*Ursus arctos horribilis*)

The project area is within the Primary Conservation Area (PCA) or Grizzly Bear Recovery Zone (GBRZ). The GBRZ pertains to a listed grizzly bear, while the PCA pertains to a de-listed grizzly bear. Specifically, the project area is in the Plateau 1 Bear Management Unit (BMU). This unit it on the east side of the district and includes Yellowstone National Park.

Approximately 10 percent of the Greater Yellowstone Ecosystem (GYE) grizzly bear population is radio-collared. However, this percentage may be greater in Island Park because of intensive trapping efforts. In summary, not all bear movements and activity areas are known.

The project area is within the lifetime activity radii of all cohorts of grizzly bears, including females with cubs, solitary females, adult and sub-adult males. The lifetime activity radius is the average estimated range that a grizzly bear uses over a lifetime of monitoring. It is the 80th percentile of the average distances from all radio transmission locations for each bear to the center of activity. It is 8.1 miles (13 kilometers) for female grizzly bears and 14.9 miles (24 kilometers) for male grizzly bears. Overall, there is consistent and long-term use of the general

area by grizzly bears. Most of the human-grizzly bear conflicts are in the center of the district. The project area is also located in the center of the district. The majority of these conflicts are related to unnatural food rewards (Landenburger et al. 2015).

From 1983 to 2001, the estimated growth rate of the GYE grizzly bear population was 4 to 7 percent annually (Haroldson 2012, Haroldson 2014). However, from 2002 to 2011, demographic characteristics of the GYE population had changed. Since 2002, the population is stable to slightly increasing (Haroldson and van Manen 2014).

Management direction for grizzly bears on the Targhee National Forest is derived from three sources. The 1997 Revised Forest Plan for the Targhee National Forest direction pertains to the grizzly bear with a listed species status and was based on the current knowledge of grizzly bear conservation in 1997. The 2007 Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area pertains to a de-listed bear and is based on the most current conservation knowledge. The 2006 Forest Plan Amendment (FPA) for Grizzly Bear Habitat Conservation for the Greater Yellowstone Area National Forests also pertained to a de-listed bear, but was based on the conservation knowledge in the 2007 Strategy. The Targhee National Forest follows management direction from all three sources because the grizzly bear is in listed status, but the strategy and FPA are based on the most current conservation knowledge. Refer to the biological assessment for an analysis of how this project meets all management direction for grizzly bears.

Columbia Spotted Frog (*Rana luteiventris*)

Forest-wide, decadal surveys for amphibians have occurred in 1992, 2002, and 2012; at over 90 standard sites. Results from these surveys demonstrate that there is geographic and temporal variability in amphibian use of sites, but there is no indication that amphibians species are declining on the forest. Of the 47 standard survey sites on the Ashton-Island Park District, spotted frogs were detected at 32 of these sites (Clark et al. 2012). Overall, spotted frogs are considered common on the Targhee National Forest. No decline in spotted frog populations is evident in nearby Yellowstone and Grand Teton National Parks. However, declines in spotted frog populations have been documented in southwestern Idaho, Nevada, Oregon, and Utah (Patla and Kenaith 2005).

One of the standard survey sites, the Buffalo River Wetlands, is within 1,090 feet of the project area. This site was only surveyed in 1992 and 1993. All life phases of spotted frogs were detected here. Since spotted frogs are considered common on the forest and the maximum overland movement of a spotted frog in Idaho was 1,090 feet, it is reasonable that spotted frogs may be present in the project area.

The Columbia spotted frog is a sensitive species and MIS on the Targhee National Forest. There are no standards and guidelines in the 1997 Revised Forest Plan for the Targhee National Forest for this species. Hence, there is no further discussion here.

Migratory Birds

Over 150 migratory bird species breed on the Targhee National Forest (USFS 1997). In addition, the Ashton-Island Park District is within Bird Conservation Regions (BCR) 9 and 10 and there are 33 BCC within these two regions (USFWS 2008). Nineteen of the BCC have been documented on the Targhee National Forest. No BCC are expected to nest within the project area.

Habitat in the project area is approximately 80 percent roadsides in immature lodgepole pine and 20 percent un-roaded in immature lodgepole pine forest. There are no riparian zones and wetland habitat is located adjacent to the project area. No migratory bird surveys have been conducted in the project area.

The Migratory Bird Treaty Act of 1918 prohibits the killing, taking, or possessing of native birds, nests, or eggs. Executive Order (EO) 13186, signed by President Clinton in 2001, outlined the responsibilities of federal agencies to protect migratory birds. Refer to the biological evaluation for an analysis of how this project meets the management direction for migratory birds.

3.3.2 Environmental Effects

3.3.2.1 Alternative 1 – No Action

Direct, Indirect, and Cumulative Effects

Grizzly Bear

The determination of effects is "no effect" for grizzly bears. Since there are no direct or indirect effects, there are no cumulative effects.

Columbia Spotted Frog

The determination of effects is "no impact" for Columbia spotted frogs. Since there are no direct or indirect effects, there are no cumulative effects.

Migratory Birds

The no action alternative would not result in any direct, indirect, or cumulative effects to migratory birds.

3.3.2.2 Alternatives 2, 3, and 4

Grizzly Bear

Direct and Indirect Effects

The determination of effects is "may affect, not likely to adversely affect." The following are direct and indirect effects to grizzly bears:

- Project activities, which involve one or two weeks of powerline burial, have the potential to disturb or displace grizzly bears. However, these effects are expected to be minimal for the following reasons: First, the project is entirely within non-secure habitat (less than 500 meters from open roads). This is lower quality habitat for grizzly bears and grizzly bears are expected to avoid these areas. Second, the project area is not in any high-quality grizzly bear habitats that contain food resources, such as whitebark pine forests or wetlands. Third, there are alternate, available, higher-quality habitats to the south in the Last Chance and Mesa Falls Byway areas. Fourth, the project would occur in a short period of time (one or two weeks), which is a fraction of the non-hibernal period of grizzly bears.
- Approximately 80 percent of the line burial would occur adjacent to existing open roads. However, approximately 20 percent of the line burial would occur in an un-roaded immature lodgepole pine stand. If it is assumed that the corridor is 10 feet wide, then an

estimated 0.3 acre of immature lodgepole pine forest may be degraded from line burial. While this may be a degradation of 0.3 acre of grizzly bear habitat, this habitat is not high-quality grizzly bear habitat that provides forage or denning resources. High-quality grizzly bear habitats include whitebark pine forests, wetlands, riparian areas, avalanche chutes, etc.

Cumulative Effects

For the cumulative effects analysis, the analysis area is the Plateau 1 BMU on the Ashton-Island Park District of the Caribou-Targhee National Forest. The project area is within this BMU. The BMU is 86,150 acres on the district.

Secure habitat (large tracts of public land where human contact is infrequent) is important for grizzly bear production (female grizzly bears and their young). Secure habitat is largely determined by motorized roads (ICST 2007). Past road construction decreased habitat quality for grizzly bears, but the 1997 Revised Forest Plan for the Targhee National Forest has decreased motorized road density and maintains a stasis into the future.

Grizzly bear-livestock conflicts may occur with cattle, but are more likely with sheep (ICST 2007). Relocation or removal of grizzly bears is possible when livestock conflicts occur. However, there are no open livestock allotments in the Plateau 1 BMU.

Human-grizzly bear conflicts are an important conservation issue, and human recreation, private developments, and human populations are increasing in the Greater Yellowstone Ecosystem (Hansen et al. 2002). In Idaho, grizzly bear-human conflicts continue to rise. In 2013 (most recent available data), most grizzly bear-human conflicts were associated with food rewards at campgrounds and private residences. Grizzly bears face higher mortality rates on private lands than public lands (Hansen et al. 2002).

This project would provide electricity to one current private residence and to seven additional potential future residences. Providing electricity to these private property parcels would increase the likelihood of their eventual development or sale. The presence of eight total private residences would increase the potential for human-grizzly beer conflicts related to unnatural food rewards.

Overall, the expected level of effects for the project would not contribute to overall cumulative effects in a way which is detrimental to grizzly bear recovery.

Columbia Spotted Frog

Direct and Indirect Effects

The determination of effects is "may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or loss of viability to the population or species." The following is a direct effect to spotted frogs:

- During June and July, and then in late August to mid-October, spotted frogs may move to summer habitats and over-winter sites, respectively (Bull 2005, Patla and Kenaith 2005, Pilliod et al. 2002). Movements occur in dry or wet stream corridors, or overland if the route is more direct (Patla and Kenaith 2005, Pilliod et al. 2002). Overland routes are possible in the project area, but are not known. However, movements may occur coincident with project activities such as burying line, ripping lava rock to lay line,

driving trucks along roads and corridors, etc. Frogs undergoing movements could be killed by project activities. No indirect impacts would occur with these alternatives.

Cumulative Effects

For the cumulative effects analysis, the analysis area is the Buffalo River Watershed (28,523 acres) because the project area is within this watershed. Activities that may impact spotted frogs include alterations to aquatic habitats, road construction, introduced fish, and beaver eradication. Beavers create spotted frog habitat (breeding ponds, dams for wintering sites, and slower streamside areas for summer foraging areas) and a recent study suggested an increase in spotted frog populations after beaver re-introduction (Patla and Kenaith 2005).

It is estimated that 95 percent of western mountain lakes were historically fishless; fish have been introduced into many lakes and streams. Indirect effects include prevention of movement through riparian corridors and lower habitat quality in deep lakes used for over-wintering. However, a study of over 2000 western lakes suggests that spotted frogs are able to co-exist successfully with fish (Pilliod et al. 2010).

A literature review on road effects on amphibians indicates that amphibians receive primarily negative effects from roads because of vulnerability to road mortality (Fahrig and Rytwinski 2009). The 1997 Revised Forest Plan for the Targhee National Forest reduced road density throughout the forest and this may have provided benefits to frogs.

Aquatic habitat alteration such as diversions, damming, and recreation; may have removed or impacted spotted frog habitat. Livestock grazing has differing effects on frogs, which include nitrogen pollution, compaction of streambank refugia (adverse), increases in basking sites, and algal tadpole food resources (beneficial). Research on the effects of cattle grazing at spotted frog breeding habitats suggests neutral to beneficial impacts (Bull and Hayes 2000, Adams et al. 2009). Overall, the expected level of effects for the project would not contribute to overall cumulative effects in a way which is detrimental to spotted frogs.

Migratory Birds

Direct and Indirect Effects

The following are direct and indirect effects to migratory birds in the project area:

- Project activities would begin in June, July, August, or September. However, the most likely time period for project activities to begin is in July. The migratory bird breeding season is April or May to August 15. Thus, project activities would occur during the migratory bird breeding season. However, the project area is 80 percent roadside in an immature lodgepole pine forest and 20 percent un-roaded in an immature lodgepole pine forest. So, the project area does not represent high-quality migratory bird breeding habitat. Further, no migratory birds of conservation concern are expected to be nesting in the project area. Because of the lower quality habitat, less disruption and destruction of migratory bird breeding activities is expected, especially for migratory birds of conservation concern.
- Project activities may alter migratory bird breeding habitat. Powerline burial would occur for 1200 feet through an un-roaded immature lodgepole pine forest. If a 10-foot wide corridor is assumed, then less than 0.3 acre of this habitat would be degraded. However, immature lodgepole pine forests are not high-quality migratory bird breeding habitats.

High-quality migratory bird breeding habitats include aspen forests, riparian areas, wetlands, etc. Only 0.3 acre of this habitat would be degraded.

Cumulative Effects

The cumulative effects analysis area is the Ashton-Island Park District (669,726 acres). Past, present, and future activities that are important for forest birds in the inland Rocky Mountains are grazing in riparian areas, decline in whitebark pine stands from insects and disease, presence of snags, increase in urban interface, and climate change (NABCI 2011). There has been an increase in urban interface within the cumulative effects analysis area and further increase is expected in the future. There are private land inholdings within the district and the population growth rate of the Greater Yellowstone Ecosystem was 55 percent between 1970 and 1997, although Fremont County was one of the slower-growing counties (Hansen et al. 2002). Snags are well-represented in the analysis area from insect-related tree mortality. Snag presence is between 40 and 70 percent biological potential, which meets or exceeds recommendations for cavity-nesting species (Bull et al. 1997). Whitebark pine stands are present primarily in the Centennial Mountains, on Sawtell Peak, and the Two Top Mountain Area within the analysis area. Declines have been consistent with that in other areas in the Greater Yellowstone Ecosystem. Grazing in riparian areas is present within the analysis area. There is less grazing pressure currently than in the past. Grazing pressure may decline in the future.

Climate change may be the primary effect on birds in the analysis area. Climate change may produce asynchrony in the arrival of long-distance migratory bird species and the peak of food resources, lowering reproductive success and survival. Also, climate change may alter the hydroperiod, resulting in a decrease in wetland habitats, which are important habitats for migratory birds. Further, extreme weather events, such as drought, increase with climate change and can cause bird population declines. Climate change also requires range shifts, northward or to higher elevations, for bird species, but range shifts may not be possible because of migration impediments or habitat loss. Further, range shifts may result in new unfavorable ecological relationships with prey, predators, or disease (Wormworth and Mallon 2006). Overall, the expected level of effects for the project would not contribute to overall cumulative effects in a way which is detrimental to migratory birds.

3.4 Cultural Resources

3.4.1 Existing Conditions

Cultural resources are defined by the National Historic Preservation Act (NHPA) of 1966 (16 USC 470 et seq., as amended) as prehistoric and historic sites, structures, districts, or any other physical evidence of human activity considered important to a culture, a subculture, or a community for scientific, traditional, religious, or any other reason. Archaeological and architectural resources (buildings and structures) are protected through the NHPA (16 USC 470f) and its implementing regulations, Protection of Historic Properties (36 CFR 800), the Archaeological and Historic Preservation Act of 1974, and the Archaeological Resources Protection Act of 1979.

Native American use of the area extends back approximately 11,000 years. The Henry's Fork of the Snake River has been used as a corridor for at least that long to access montane resources from the Snake River Plain and to travel to the Yellowstone area and Great Plains. Fur traders entered the region shortly after the Corps of Discovery Expedition (1805-1806) and the region

was explored by John Colter in following years. After the fur trade ended, few Euro-Americans entered the area until gold was discovered in Montana in the 1850s. The present route of the Yellowstone Park Highway (US-20) in this area roughly corresponds to the Idaho Gold Road. Settlers and ranchers followed the gold rush and several patented land in the area. Railroad entrepreneur Averell Harriman owned a ranch north of the project area, which is now Harriman State Park.

A file search was conducted using Idaho State Historic Preservation Office (SHPO) files in Boise, Idaho. The file search revealed that 10 projects have occurred within 1 mile of the area of potential effects for this project. Six previously recorded sites were recorded within 1 mile of the survey area, and no sites or isolated finds were recorded as a result of the current inventory of the proposed route conducted on September 8, 2014 (North Wind 2014).

3.4.2 Environmental Effects

3.4.2.1 Alternative 1 – No Action

Direct and Indirect Effects

Because no ground disturbance would occur under the No Action Alternative there would be no potential for effects to cultural resources.

Cumulative Effects

Because the No Action Alternative would not result in impacts to cultural resources there is no potential for this alternative to contribute to cumulative effects.

3.4.2.2 Alternatives 2, 3, and 4

Impacts to cultural resources were determined to be the same for all three alternatives so they are discussed collectively below.

Direct and Indirect Effects

One cultural resource site – the Union Pacific Railroad between St. Anthony, Idaho and West Yellowstone, Montana – is present within the project area and has been determined to be eligible for listing on the National Register of Historic Places (NRHP). Five additional sites which include lithic scatters and cabin remains have been identified within 1 mile of the proposed project area. The isolate was determined to be ineligible for the NRHP. All of these sites except for one isolated flake have an undetermined eligibility for the NRHP. The single flake was determined to be not eligible for the NRHP. The proposed powerline installation would have no impact on the integrity of any of these sites. A finding of no effect to this resource has received concurrence from SHPO on March 5, 2015 and a copy of the concurrence letter is included in the project file.

No other cultural resources are known to occur within the proposed project area. If during project activities, any cultural, historical, or prehistoric resources are discovered, the Forest Service Archeologist would be notified, and all work in the area would cease. An inspection by the Forest Service would be conducted and a mitigation plan developed, if necessary, in consultation with the Idaho SHPO and interested Tribes.

Cumulative Effects

Through the implementation of mitigation measures, the Proposed Action would not result in impacts to cultural resources. No reasonably foreseeable future actions within the project area have been identified that have the potential to contribute to cumulative effects. Therefore, cumulative impacts to cultural resources would be negligible.

3.5 Recreation

3.5.1 Existing Conditions

The Island Park area offers recreation for a variety of sportsmen and tourists and National Forest System lands surrounding Island Park are popular as a recreation destination. The Henrys Fork of the Snake River is located east of US-20 and draws tourists as well as nearby residents to the area. Recreation use typical of the area includes hunting, fishing, OHV use, snowmobiling, horseback riding, camping, picnicking, wildlife viewing, and sight-seeing. Forest Service Trail 001 is located along the western edge of the project area. Portions of the proposed project would be accessed via Forest Service Road 033. This trail is open to vehicles with a wheel base less than 50 inches in width, two-wheeled vehicles, hikers, and horseback riders during the summer months with all trails and roads open to all licensed vehicles. Forest Service Road 033 is open to all licensed vehicles.

The project area is within Idaho Fish & Game, Game Management Unit (GMU) 61 which provides opportunity for open and controlled hunts for big game species (elk, deer, bear, lion, and moose) as well as multiple upland bird species and waterfowl. However, due to the close proximity to residential properties the area is anticipated to receive very little use by hunters.

3.5.2 Environmental Effects

3.5.2.1 Alternative 1 – No Action

Direct and Indirect Effects

Under the No Action Alternative, the proposed powerline would not be installed. There would be no impacts to the recreation activities or access within the proposed project area.

Cumulative Effects

Because the No Action Alternative would not result in impacts to recreation activities there is no potential for this alternative to contribute to cumulative effects.

3.5.2.2 Alternative 2

Direct and Indirect Effects

During the installation of the proposed powerline at the connection point along Forest Service Trail 001 and at the point where it crosses the BP powerline there is the potential for temporary impacts to recreation users. These impacts would cause OHV users to slow and use caution within the construction area. The construction activities would not prohibit use during installation; it would only cause slight restrictions. Following the installation of the powerline, the installation route would be rehabilitated to deter recreation use along the powerline away from the trail. These rehabilitation efforts would include actions such as revegetation, and placement of logs and cut trees across the installation route. Once construction is complete, the presence of the powerline would not have any impact on recreation activities or access to the project area.

Cumulative Effects

Continued recreation use of Railroad Trail 001, unauthorized OHV trail, and Forest Service Roads would continue at the current rate and would not be altered by the proposed project. No additional reasonably foreseeable actions have been identified within the project area with the potential to contribute to cumulative effects. Current land use will continue to have similar impacts on recreation activities on surrounding properties. Therefore, cumulative impacts to recreation would be minor.

3.5.2.3 Alternative 3

Direct and Indirect Effects

As with Alternative 2, the installation of a buried powerline has the potential to affect recreation. Impacts would be nominal and temporary in nature. Installation of the powerline across the wet meadow has the potential to entice unauthorized use of the installation route by OHV users due to the open nature of the meadow making the disturbance area more visible to recreation users. Rehabilitation efforts similar to those proposed under Alternative 2 would be implemented to discourage use by those recreating in the area.

Cumulative Effects

Recreation use of Railroad Trail 001 and Forest Service Roads would continue at the current rate and would receive only temporary impacts by the proposed project. No additional reasonably foreseeable actions have been identified within the project area with the potential to contribute to cumulative effects. Current land use will continue to have similar impacts on recreation activities on surrounding properties. Therefore, cumulative impacts to recreation would be minor.

3.5.2.4 Alternative 4

Direct and Indirect Effects

Disturbance to recreation associated with the Alternative 4 would be greater than the other two alternatives, due to the longer length of powerline which would be installed under this alternative, and the powerline being installed along Forest Service Road 033. Impacts to recreation would be temporary and would be isolated to installation periods. Use of Forest Service Road 033 for recreation activities is limited. Disturbance to recreation users along Forest Service Trail 001 would be the same as those mentioned under Alternatives 2 and 3. During installation activities, construction equipment has the potential to block or restrict use along Forest Service Road 033. These restrictions would be temporary and recreation users in the area would likely be able to get around equipment during activity. Rehabilitation efforts would be implemented along the proposed installation route. The area between Forest Service Trail 001 and the BP powerline would be revegetated and logs and debris would be placed over the route to hinder use by OHV users. Due to previous disturbance of the areas along Forest Service Road 033, and narrowness of the road corridor, the area would only be revegetated and no debris would be placed within the roadway.

Cumulative Effects

No additional reasonably foreseeable future actions have been identified within the project area with the potential to contribute to cumulative effects. Current land use will continue to have similar impacts on recreation activities and access on surrounding properties.

3.6 Wild and Scenic River

3.6.1 Existing Conditions

A five mile segment of the Buffalo River from Buffalo River Springs to the confluence with Elk Creek has been designated as being eligible as a "Scenic River" in the National Wild and Scenic River System. The Forest Service is tasked with maintaining and protecting the free-flowing character and the "outstandingly remarkable" values which qualify the river to be considered eligible as a Scenic River pending a suitability determination.

Proposed Scenic Rivers are managed to protect and enhance the outstandingly remarkable fish and wildlife, scenic, recreational, historic, cultural, or other values identified for the river, within, as a minimum, one quarter mile of the ordinary high water mark on each side of the river. Moderate levels of existing development, including roads which cross the river but are generally screened for the river banks, are allowed. New development and uses must not degrade the values which qualify the river for consideration as eligible.

Under the Scenic River classification nonrecreation special use structures may occur if they meet visual quality objectives and do not degrade the outstandingly remarkable values (USFS 1997). The Forest Service goal for this resource is to "Maintain and protect the free-flowing character and the outstandingly remarkable values of the river and corridor which qualify it as a scenic river" (USFS 1997). There are no specific standards and guidelines for actions associated with the proposed action.

3.6.2 Environmental Effects

3.6.2.1 Alternative 1 – No Action

Direct and Indirect Effects

Under the No Action Alternative, the proposed powerline would not be installed. There would be no impacts to the quarter mile buffer associated with the proposed scenic river which occurs within the project area.

Cumulative Effects

Because the No Action Alternative would not result in impacts to proposed scenic river characteristics there is no potential for this alternative to contribute to cumulative effects.

3.6.2.2 Alternative 2 and 3

Impacts associated with Alternatives 2 and 3 would be the same for the proposed Scenic River so they are discussed together in this section.

Direct and Indirect Effects

During the installation of the proposed powerline within the route associated with Alternatives 2 and 3, there would be some disturbance within the quarter mile buffer of the proposed scenic river. These impacts are associated with the disturbance of soils and vegetation along the proposed routes. Impact to soils and vegetation would be minimized by implementation of BMPs and temporary in nature while vegetation becomes reestablished. The proposed BMPs would include actions such as revegetation and placement of logs and cut trees across the installation route. All actions associated with these alternatives would be screened from the river

by existing vegetation. Once construction is complete, the presence of the powerline would not have any impact on scenic characteristics within the project area.

Cumulative Effects

Continued recreation use of within the quarter mile corridor of the Buffalo River would continue to alter the scenic characteristics of the segment of the river proposed as wild and scenic. No additional reasonably foreseeable actions have been identified within the project area with the potential to contribute to cumulative effects. Current land use will continue to have similar impacts on wild and scenic river characteristics.

3.6.2.3 Alternative 4

Direct and Indirect Effects

The route associated with Alternative 4 is located outside of the quarter mile buffer around the Buffalo River associated with the proposed scenic river. Implementation of Alternative 4 would have no impact on scenic characteristics.

Cumulative Effects

No additional reasonably foreseeable future actions have been identified within the project area with the potential to contribute to cumulative effects. Current land use will continue to have similar impacts on scenic characteristics.

3.7 Wetlands and Water Quality

3.7.1 Existing Conditions

The Idaho Department of Environmental Quality (IDEQ) identifies surface water use designations (beneficial uses) and the water quality standards (IDEQ 2015). The beneficial uses of the Buffalo River include: Coldwater Aquatic Life, Salmonid Spawning, Primary Contact Recreation, Domestic Water Supply, and Special Resource Water (IDEQ 2010).

Through a MOU with the State of Idaho, the Forest Service is responsible for implementing nonpoint source pollution control measures during all management activities (USDA Forest Service 2013). The Idaho antidegradation policy, contained in Section 051 of Idaho's water quality standards (IDAPA 58.01.02.051), states that the designated uses and the level of water quality necessary to protect those uses, shall be maintained and protected. It is also Forest Service policy to maintain or improve water quality (Targhee RFP and FSM 2500 (2520.3)). IDEQ recognizes BMPs as an effective process for protecting beneficial uses and ambient water quality.

The proposed route was selected to avoid surface water bodies and wetlands that are in close proximity to the project area. The closest major surface water to the area is the Buffalo River which is located approximately 0.15 to 0.35 miles north of the proposed route. The Buffalo River is the main collector for the Upper Henry's Fork Subbasin, which encompasses 1,077 square miles and is identified as hydrologic unit code (HUC) 17040202.

The Buffalo River has a TMDL for sediment (IDEQ 2010 & 2014). The forest is required to ensure that cost effective BMPs are implemented to prevent further degradation to the stream channel or water quality within the impaired stream and that these characteristics are improved. As part of the Subbasin Assessment and TMDL, "*IDEQ has reached an agreement with the*

Forest Service for implementing road maintenance to improve stream bank stability in the entire watershed:

- *The load allocation for Buffalo River was based on a half-mile reach where the width/depth ratio has been altered due to historical recreational access. A direct volume calculation of the eroding stream banks in the altered reach shows that the load allocation would be 18 tons of sediment per mile per year for a reduction to the load capacity of 4 tons of sediment per mile per year DEQ determined the river would be able to assimilate without impairing beneficial uses. Thus, a 76% reduction is needed in the Buffalo River watershed to meet the stream bank stability target*" (IDEQ 2010).

A shallow pond occurs along Railroad Trail 001 in the area where Alternative 3 would enter the wet meadow. The shallow pond appears to be a result of material being excavated to form the railroad bed. The water present within this ponded area is seasonal and fed by ground water with no inlet or outlet.

An initial check for the presence of wetlands within the project area was conducted using National Wetland Inventory (NWI) maps (USFWS 2014) followed by a site visit to confirm the findings on the NWI map. A survey of the proposed routes was conducted in August and October 2012 and August 2014 to determine the presence of any wetlands. There is multiple wetland areas confirmed within or in close proximity to the proposed routes observed during the survey. The route associated with Alternative 3 would cross the northern portion of a large wet meadow; which was found to contain all three of the wetland characteristics required to be classified as a wetland under the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (U.S. Army Corps of Engineers May 2010). The routes associated with Alternatives 2 and 4 avoided disturbance of wetland habitat.

3.7.2 Environmental Effects

3.7.2.1 Alternative 1 – No Action

Direct and Indirect Effects

Under the No Action Alternative, the proposed powerline would not be installed. Therefore, there would be no potential impact to surface water quality or wetlands.

Cumulative Effects

Because the No Action Alternative would not result in impacts to wetlands or water quality there is no potential for this alternative to contribute to cumulative effects. The Buffalo River would continue to have a TMDL for sediment and efforts by the IDEQ and Forest Service would continue to be implemented to remedy the situation.

3.7.2.2 Alternative 2

Direct and Indirect Effects

There is no open or flowing water present within the proposed project area. The segment of the route associated with Alternative 2 is located approximately 0.15 to 0.2 miles from the Buffalo River. The distance of surface water from the proposed project area limits the risk of potentially impacting these water bodies with increased sediment or other contaminants associated with the project area. Implementation of BMPs during installation of the powerline also reduces the risk

of sediment and contaminants from entering surface water. The strategic location of the powerline location to avoid wetland areas and surface water has eliminated the potential impacts to these resources.

Ground water contamination could occur with the Alternative 2. These risks are associated with ground disturbance which would occur during the installation of the powerline. Design features have been added to the proposed project to prevent installation of the powerline when soils are moist. Installation of the powerline would not occur at the times when ground water levels are high (during spring melt and run off). In addition to design features, BMPs associated with heavy equipment operation (i.e., fuel storage, fueling procedures, spill prevention/clean-up kits present, and proper functioning of machinery) would be implemented to prevent spills which have the potential to impact water quality. Due to the small scope of the project, refueling and fuel storage is not expected to be needed within the project area. The contractor would be required to comply with all Federal, State, and local laws and regulations controlling pollution and contamination of the environment.

Cumulative Effects

There are no water resources or wetlands along the proposed route; therefore Alternative 2 would have no effect on these resources. Because Alternative 2 would not result in impacts to the wetlands or water quality there is no potential for this alternative to contribute to cumulative effects.

3.7.2.3 Alternative 3

Direct and Indirect Effects

There is no open or flowing water present within the proposed project area. The segment of the route associated with Alternative 3 is approximately 0.15 to 0.2 miles from the Buffalo River. The distance of surface water from the proposed project area limits the risk of potentially impacting these water bodies with increased sediment or other contaminants associated with the project area. Implementation of BMPs during installation of the powerline also reduces the risk of sediment and contaminants from entering surface water.

Ground water contamination could occur with the Proposal Action alternative. These risks are associated with ground disturbance which would occur during the installation of the powerline. Design features have been added to the proposed project to prevent installation of the powerline when soils are moist. Installation of the powerline would not occur at the times when ground water levels are high (during spring melt and run off). In addition to design features, BMPs associated with heavy equipment operation (i.e., fuel storage, fueling procedures, spill prevention/clean-up kits present, and proper functioning of machinery) would be implemented to prevent spills which have the potential to impact water quality. Due to the small scope of the project, refueling and fuel storage is not expected to be needed within the project area.

The route associated with Alternative 3 will directly impact wetlands within the project area. If Alternative 3 is selected the installation of the powerline would occur after the surface water along Railroad Trail 001 has dried up for the season (late fall). The route associated with this alternative would be along the northern bounds of the wet meadow. This route was initially included for assessment to reduce the number of trees that would be required to be removed for powerline installation. However, the location of the proposed route would result in temporary impacts to wetlands found within the wet meadow. These impacts would be associated with the

driving of tracked vehicles across the wetlands resulting in compaction and ripping the powerline through the wetland area. Using the ripping installation method is anticipated to result in less impact than excavating a trench through the wetland for the installation of the powerline.

More BMPs would be needed to protect water quality under Alternative 3 than for Alternative 2. These BMPs include silt fencing around disturbed areas, installation of straw bales or waddles to prevent surface flow into open water, and revegetation of disturbed areas. The contractor would be required to comply with all Federal, State, and local laws and regulations controlling pollution and contamination of the environment. Some items that may be required include a Stormwater NPDES permit which is issued by the EPA, as well as a 404 permit issued by Army Corps of Engineers (ACOE) in association with the Clean Water Act.

A formal wetland delineation would need to be performed and submitted to the ACOE prior to the initiation of any construction activity which would disturb the wet meadow or other wetland areas in close proximity to the proposed route associated with Alternative 3. A preliminary survey was conducted to identify the location and boundary of wetland habitat. Following the completion of a formal delineation, the ACOE would respond with review/concurrence of the delineation findings and provide a formal determination of jurisdiction. If the wetlands are deemed to be jurisdictional by the ACOE, a 404 permit would be needed to perform work within the delineated wetland areas. Additional mitigation measures may be required by the ACOE to offset impacts to these wetlands.

Cumulative Effects

No foreseeable actions are known for the project area which may result in impacts to wetland habitat or which may impact water quality in the project area. Without foreseeable potential projects that would impact wetlands and water quality, the impacts associated with Alternative 3 would not combine with other actions to result in a cumulative effect.

3.7.2.4 Alternative 4

Direct and Indirect Effects

There is no open or flowing water present within the proposed project area. The closest segment of the proposed route associated with Alternative 4 is 0.35 miles from the Buffalo River. The distance of surface water from the proposed project area limits the risk of potentially impacting this water body with increased sediment or other contaminants associated with the project. Implementation of BMPs during installation of the powerline also reduces the risk of sediment and contaminants from entering surface water. The location of the powerline location to avoid wetland areas and surface water has eliminated the potential impacts to these resources.

Ground water contamination could occur associated with Alternative 4. These risks are associated with ground disturbance which would occur during the installation of the powerline. Design features have been added to the proposed project to prevent installation of the powerline when soils are moist. Installation of the powerline would not occur at the times when ground water levels are high (during spring melt and run off). In addition to design features, BMPs associated with heavy equipment operation (i.e., fuel storage, fueling procedures, spill prevention/clean-up kits present, and proper functioning of machinery) would be implemented to prevent spills which have the potential to impact water quality. Due to the small scope of the project, refueling and fuel storage is not expected to be needed within the project area.

The location of the proposed route was chosen to avoid potential impacts to wetlands and areas with wetland characteristics. There would be no need for a formal delineation or joint application 404 permit for the proposed project. The contractor would be required to comply with all Federal, State, and local laws and regulations controlling pollution and contamination of the environment

Cumulative Effects

There are no water resources and wetlands along the proposed route. There are no known foreseeable actions planned along the route associated with Alternative 4 which would compound any potential impacts that may occur associated with the implementation of Alternative 4. Implementation of BMPs is anticipated to reduce if not eliminate the risk of impacts to water quality and wetlands along the route associated with Alternative 4.

4 CONSULTATION AND COORDINATION

The following individuals, Federal, State, and local agencies, tribes and non-Forest Service persons were contacted during the development of this EA.

4.1 ID Team Members

Elizabeth Davy, District Ranger

Sabrina Derusseau, Wildlife Biologist

Rose Lehman, Botanist

Ali Abusaidi, Forest Archeologist

David Mar, Forest Soil Scientist

Bill Davis, District Recreation Staff Officer, Team Leader

Brad Higginson, Hydrologist

4.2 Federal, State, and Local Agencies

Environmental Protection Agency, Region 10

Idaho Department of Environmental Quality

Idaho Department of Fish & Game

Idaho Department of Water Resources

Idaho State Historic Preservation Office

U.S. Army Corps of Engineers

U.S. Fish & Wildlife Service

4.3 Tribes

Shoshone-Bannock Tribes

4.4 Others

The project proposal was sent to several others including individuals with land ownership or property in the vicinity of the proposed project. An official mailing list is on file with the Ashton Island Park Ranger District.

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