



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Grand Staircase-Escalante National Monument

190 E Center Street

Kanab, UT 84741

<http://www.ut.blm.gov/monument>



In Reply Refer To:  
1793 (UT030)

September 13, 2011

Dear Reader/Interested Party:

The Bureau of Land Management (BLM) issued a decision September 7<sup>th</sup>, 2011 that will help bring reliable electrical power to the communities of Hatch, Bryce Canyon City, and Cedar Mountain.

The BLM's decision is presented in the attached Record of Decision (ROD) for the Tropic to Hatch (Garkane) 138 kV Transmission Line Environmental Impact Statement and the Approved Grand Staircase-Escalante National Monument Management Plan Amendment (MMPA). The supporting Environmental Impact Statement (EIS) was developed collaboratively with input from the public, tribes, and local, state, and Federal agencies, including the U.S. Forest Service, the lead Federal agency, and the National Park Service, in accordance with the Federal Land Policy and Management Act (FLPMA) and the National Environmental Policy Act (NEPA).

In order to accommodate an existing powerline and route, and the proposed transmission line, the Approved MMPA changes both a zoning and visual resources decision in the Monument's Management Plan to establish a 3.7 mile, 300-foot-wide Passage Zone. Amendment of the MMP and granting the right-of-way will have minimal effect on the landforms, cultural features, or other important values specifically enumerated in the Grand Staircase-Escalante National Monument Proclamation, as they would be minimized. The ROD also indicates the BLM's intent to grant a right-of-way across public lands in both the Monument and 3.4 miles of land managed by the Kanab Field Office for construction and maintenance of the proposed transmission line.

The ROD/MMPA is available to members of the public and will be sent to pertinent local, State, Tribal and Federal government entities. The ROD finalizes the proposed decisions presented in the Proposed MMPA/Final Environmental Impact Statement (FEIS) that was released April 8<sup>th</sup>, 2011 and subject to a 30-day protest period that ended on May 9<sup>th</sup>, 2011. No protest letters were received.

Information on the project may be viewed online at [http://www.blm.gov/ut/st/en/fo/grand\\_staircase-escalante.html](http://www.blm.gov/ut/st/en/fo/grand_staircase-escalante.html). Copies may also be viewed in electronic and printed form at the BLM Utah State Office in Salt Lake City, the BLM Kanab Field Office and the Grand Staircase-Escalante National Monument offices in Kanab and Escalante. Electronic documents may be downloaded from the Utah BLM Environmental Notification Bulletin Board website: <https://www.blm.gov/ut/enbb/index.php>

Any party adversely affected by the decision may appeal within 30 days of publication of this NOA in the *Federal Register*. If you wish to file a petition for a stay of effectiveness of the right-of-way decision during the time your appeal is being reviewed by the Interior Board of Appeals, the petition for a stay must accompany your Notice of Appeal (43 CFR 4.21 or 43 CFR 2801.10). The appeal and petition for a stay (if requested) must be filed with the Utah State Director at BLM, Utah State Office, P.O. Box 45155, Salt Lake City, Utah, 84145-0155, within 30 days of publication of this NOA. The appeal should state the

specific decision(s) in the ROD which is being appealed. Please consult the appropriate regulations (43 CFR Part 4, subpart E) for further appeal requirements.

Your interest in the management of your public lands is appreciated. If you have any questions or need further information, please contact Matt Betenson, Assistant Monument Manager for Planning and Support Services, (435) 644-4309, [Matthew\\_J\\_Betenson@blm.gov](mailto:Matthew_J_Betenson@blm.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Rene C. Berkhoudt", written over a printed name and title.

Rene C. Berkhoudt  
Monument Manager  
Grand Staircase-Escalante National Monument

**United States Department of the Interior  
Bureau of Land Management**

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**Environmental Impact Statement  
UT-030-08-017-EIS  
September 2011**

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**Record of Decision  
Tropic to Hatch (Garkane) 138 kV Transmission Line and the Approved Grand  
Staircase-Escalante National Monument Management Plan Amendment**

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**BLM**





# INTRODUCTION

Garkane Energy Cooperative (Garkane) filed applications for right-of-way (ROW) grants with the US Forest Service (USFS), Dixie National Forest (DNF), the Bureau of Land Management (BLM) Grand Staircase – Escalante National Monument (GSENM) and Kanab Field Office (KFO), and the National Park Service (NPS) Bryce Canyon National Park (BRCA) proposing construction of a new 138 kV transmission line that will replace some or all of an existing 69 kV transmission line between the communities of Tropic and Hatch and increase the capacity of Garkane’s electrical delivery system in this area of southern Utah.

Pursuant to the requirements of the National Environmental Policy Act (NEPA) and Council of Environmental Quality (CEQ) regulations found at 40 CFR 1500-1508, a Draft Environmental Impact Statement (EIS) and Final EIS for the Tropic to Hatch 138 kV Transmission have been prepared by the DNF to analyze the environmental effects of the proposed action and alternatives.

The BLM GSENM and KFO have participated as cooperating agencies in development of the EIS and have worked closely with the DNF and other cooperating agencies to identify resource issues and design alternatives that address or avoid areas of concern. In accordance with 40 CFR 1506.3, the BLM has determined that the Tropic to Hatch 138 kV Transmission Line EIS meets all CEQ, Department of Interior (DOI), and BLM requirements for preparation of an EIS. Therefore, the BLM has adopted the EIS for actions on BLM-administered lands.

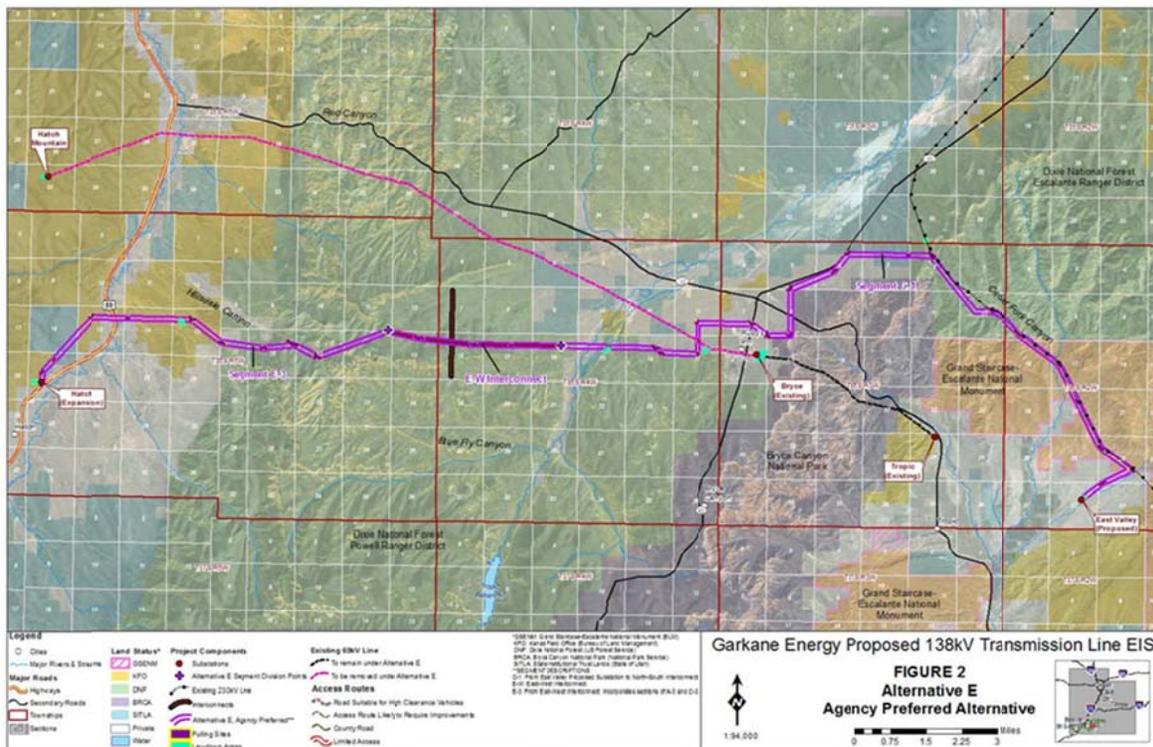


Figure 1

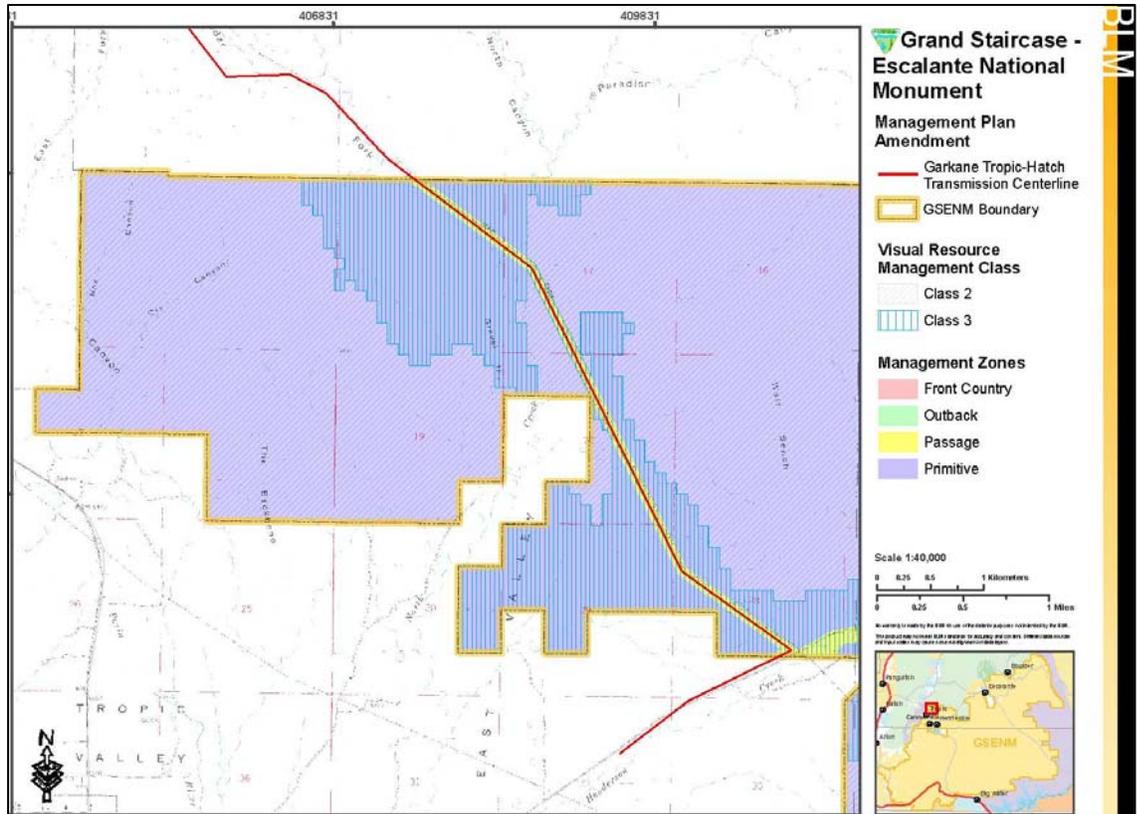
## **DECISION**

This Record of Decision (ROD) documents the BLM decision to offer and subsequently grant a 100-foot-wide ROW to Garkane Energy Cooperative for the construction of their proposed 138 kV transmission line, across public lands managed by BLM, as described in Alternative E of the Final EIS (hereafter referred to as the Selected Alternative) and following the route depicted generally in Figure 1, on public lands in the GSENM and KFO. The granting of the ROW is contingent upon payment of appropriate fees, submission of an acceptable Plan of Development (POD), and compliance with Terms and Conditions discussed in Appendix 1 of this decision.

Under the Selected Alternative, the approved transmission line will traverse an area of the GSENM designated as a Primitive Zone. The GSENM Monument Management Plan (MMP) decision LAND-7 (BLM 2000) states: “In the Primitive Zone, utility rights-of-way will not be permitted. In cases of extreme need for local (not regional) needs and where other alternatives are not available, a plan amendment could be considered for these facilities in the Primitive Zone.”

Additionally, a portion of the transmission line will be constructed in GSENM within an area designated as a Visual Resource Management (VRM) Class II, and placement of such facilities would not be consistent with Class II objectives (GSENM MMP decision VRM-1).

In order to allow for construction, operation, and maintenance of the approved transmission line, the GSENM MMP is hereby amended to change a 300-foot-wide 3.68-mile portion of Primitive Zone to Passage Zone to accommodate both the approved ROW and the existing 230 kV Rocky Mountain Power/PacifiCorp transmission line and its associated 130-foot ROW. The Plan amendment also changes the existing VRM Management Class designation within the 300-foot wide 3.68-mile-long area from Class II to Class III (See Figure 2).



**Figure 2**

## **Protests and Protest Resolution**

In accordance with BLM planning regulations found at 43 CFR 1610.5-2, a 30-day protest period was provided for the Tropic to Hatch 138 kV Final EIS and Proposed Management Plan Amendment between April 8<sup>th</sup>, 2011 and May 8<sup>th</sup>, 2011. During the 30-day protest period provided for the proposed MMP amendment, the BLM did not receive any protest letters.

## **Governor’s Consistency Review**

A 60-day governor’s consistency review was initiated on April 8<sup>th</sup>, 2011 in accordance with the planning regulations at 43 CFR Part 1610.3-2(e). During the review period, the Governor’s Office did not identify any inconsistencies with state or local plans, policies, or programs.

## **WHAT THE DECISION PROVIDES**

### **Selected Alternative**

The 100-foot-wide ROW for the Selected Alternative begins with Segment C1 (17.36 miles), the East-West Interconnect option (3.70 miles), and a combination of portions of Segments A-3 and C-3 (referred to as E-3). Segment E-3 will then follow Segment A-3 for 1.6 miles to the point where it intersects Segment C-3 and will follow the remainder of Segment C-3, terminating at the Hatch Substation for 6.76 miles. The total length of the selected route is 29.41 miles.

The proposed 100-foot ROW for Segment E-3 is located in:

- Sections 14, 15, 16 and 17, T36S, R5W
- Sections 13, 14, 15, 16 and 21 T36S, R4 1/2W

Approximately 16.23 miles of the existing 69 kV transmission line infrastructure from the Bryce Canyon Substation to the Hatch Mountain Substation will be removed using the techniques discussed in Appendix 1.

### ROW Grant

The BLM ROW grant will authorize the use of public lands for a 138kV transmission line for a term of 30 years, with a right to renew. Construction, operation, and maintenance of the approved transmission line will include:

7.1 miles of transmission line across BLM (3.7 miles in GSENM, 3.4 in KFO)

#### Ancillary facilities

- 10 pulling and splicing areas of approximately 1.15 acres each
- 6 pulling sites in KFO
- 4 pulling sites in GSENM
- 1 laydown site in KFO
- Access Roads
- Only existing roads on GSENM, minor improvements
- Access road construction and minor improvements to KFO existing roads

See Appendix 1 for detailed terms and conditions of approval to be included in the right-of-way grant.

### Plan Amendment

As previously mentioned, the Approved MMP Amendment allows for the issuance of this ROW by changing a zoning decision in the MMP from a Primitive Zone to a 300-foot-wide Passage Zone to accommodate an existing 230kV transmission line and route, as well as the Applicant's proposed transmission line. The MMP Amendment also changes the Visual Resource Management classification from a Class II to a Class III to allow for additional modifications to the landscape within the 300-foot-wide zone.

## **MANAGEMENT CONSIDERATIONS AND RATIONALE FOR THE DECISION**

### **Purpose and Need for Action**

Implementation of the selected alternative meets the BLM's purpose and need for action, which is to increase electrical transmission capacity between Tropic and Hatch to meet present and future electrical demands.

There is need for additional electrical capacity in the Hatch area. This has been caused by population growth in the area, resulting in increased loads which exceed the existing system capacity. Customers currently experience rolling blackouts and use backup diesel generators to meet excess demand. Use of diesel generators contributes to air quality concerns in the area.

### **Conformance with the Kanab Field Office Resource Management Plan**

The Selected Alternative is in conformance with the Kanab Field Office Record of Decision and Approved Resource Management Plan (Approved RMP), which was signed in October 2008.

While this action is not specifically identified in the Approved RMP, the decision is clearly consistent with the goals and objectives of the plan, including the following Lands and Realty decisions:

- Make public lands available for community growth and public purposes as well as other infrastructure needs.

The Management Action section further addresses this type of action:

LAR 8-New and reconstructed power lines must meet non-electrocution standards for raptors. If electrocution or line strike issues develop with existing power lines, corrective actions to meet these non-electrocution standards would be taken.

### **Consistency with the Purposes of the Monument and Conformance with the Monument Management Plan**

The proposed transmission line is consistent with the purposes of the Monument. The Proclamation which established the Monument does not prohibit new rights-of-way. It directs that lands within the Monument are withdrawn only from disposition through entry, location, sale, etc. Other uses are to be managed according to a management plan to be prepared within three years of the Proclamation.

The Grand Staircase – Escalante National Monument Management Plan was completed in November 1999 and made effective in February 2000. The area of the proposed ROW was designated a “Primitive Zone.” The Primitive Zone is a ROW exclusion area. However, the plan explicitly provides for amendment to meet local needs. Plan decision LAND-7 states: “In the Primitive Zone, utility rights-of-way will not be permitted. In cases of extreme need for local (not regional) needs and where other alternatives are not available, a plan amendment could be considered for these facilities in the Primitive Zone.”

### **Protection of Objects of the Monument**

The proposed ROW will have minimal effect on the landforms and cultural features specifically enumerated in the Proclamation. The Proclamation also names certain resource values as important to the purpose of the Monument, including visual, cultural, paleontological, and biological resources, especially Threatened and Endangered species and cryptobiotic soils. Impacts to these resources will be minimized through implementation of measures described in Appendix 1 (Terms and Conditions). To minimize impacts to visual resources in the Monument, the approved 138 kV line will be placed adjacent to the existing 230 kV line. Pre-construction surveys and avoidance will prevent impacts to known cultural and paleontological resources.

### **Resource Considerations**

The Selected Alternative provides for electrical transmission and protection of affected environmental resources. While the Selected Alternative includes terms and conditions that will minimize impacts to all resources that were discussed in the EIS, the primary resource concerns

that were taken into consideration by all Federal agencies when identifying the Selected Alternative were impacts to species of special status, such as Utah prairie dog (UPD) and greater sage grouse habitat, impacts to distinctive land areas, such as Bryce Canyon National Park and BLM lands with wilderness characteristics, and impacts to visual resources. Other concerns were impacts to wildlife habitat, land use and vegetation.

Specifically, the Selected Alternative was the Agencies' Preferred Alternative considering the following issues and resource impacts:

**Segment C-1** was selected as part of the Selected Alternative because it

- Parallels the existing 230kV Rocky Mountain Power/PacifiCorp transmission line through GSENM. Visual contrast created by the project would not draw the attention of the casual observer because the project would be located directly adjacent to an existing transmission line, which has similar visual elements.
- Crosses the GSENM onto the DNF through Cedar Fork Canyon to take advantage of paralleling the existing 230 kV line and the John's Valley/Upper Valley planning window area. (This window area was designated in the 1986 DNF LRMP as a critical segment of terrain through which energy transportation and utility rights-of-way could pass in traversing the Forest).
- Has fewer impacts to UPD and sage grouse than Alternative A or B:
  - Alternative C was developed by the interdisciplinary team to reduce impacts to greater sage grouse and UPD on the Paunsaugunt Plateau.
  - Segment C-1 was selected to avoid a significant sage grouse lek complex in John's Valley.
  - Although Segment C-1 is within suitable and occupied UPD habitat, it takes advantage of traversing the forest boundary and therefore skirting the edge of UPD territories rather than bisecting large open areas.

**The East-West Interconnect** was selected as part of the Selected Alternative because it

- Has fewer impacts to wildlife resources and vegetation than portions of segments C-2 and C-3.
- Avoids more unique bristlecone pines and sensitive plant populations than Segments C-2 and C-3.

**The section of Segment A-3** was selected as a part of the Selected Alternative to reconnect Segment C-1 to Segment C-3. It was selected because it

- Takes advantage of the planning window area (Hillsdale Canyon-Ahlstrom Hollow) identified in the DNF LRMP (1986).
- While it crosses the Red Canyon South unroaded /undeveloped area, no roads will be built to construct the line. This portion of the line will be *limited access* and will require construction using horses, mules, or helicopters. This will reduce the size of the undeveloped character of the area but the remaining unroaded /undeveloped area would still be large enough to consider for management of unroaded and undeveloped values (DEIS page 4-126, Section 4.11).

**Segment C-3** south of Hillsdale Canyon private property was selected as part of the Selected Alternative because it

- Impacts fewer acres of private land and DNF land than Segment A-3.
- Is shorter and has impacts to fewer acres than Segment A-3.

**Other issues:**

- Alternative B through BRCA involved the building of an additional substation on the Paunsaugunt Plateau and the decommissioning of the existing Bryce Canyon substation, resulting in the rerouting and construction of three new circuits of distribution lines of approximately three miles each and the establishment of accompanying 50-foot rights-of-way (DEIS page 2-33, Section 2.5).
- The Selected Alternative is consistent with the BLM's multiple use mandate.
- The Selected Alternative provides a practicable alternative to those alternatives that would disturb BRCA resources and thereby be inconsistent with the mission of the NPS.
- Visual impacts were considered in respect to the State Route 12 Scenic Byway (All American Road), and all agency visual resource objectives (DEIS Section 4.13).
- The Selected Alternative allows the removal of the 69 kV line through scenic Red Canyon on the DNF, which is managed for High scenic integrity. The existing line and poles dominate foreground views along the Golden Wall Trail within this area (DEIS page 3-135, Section 3.13.2) and removal would resolve this issue.
- More than 10 miles of the 69 kV line would be removed through both sage grouse and UPD habitat on public lands managed by the BLM and USFS.
- The proposed ROW will affect approximately 134 acres of lands that have been inventoried by the BLM and found to have wilderness characteristics. Implementation of the Selected Alternative will not preclude the BLM from considering protection of the approximately 3,000-acre Box Canyon wilderness characteristics area as part of future planning process. The Box Canyon wilderness characteristics area is contiguous to approximately 2,760 acres of land in BRCA that have been recommended for wilderness. The approved transmission line parallels a larger existing 230kV transmission, which forms the boundary of the wilderness characteristics area. Because the power line will be located near the boundary of the wilderness characteristics area, the Selected Alternative will only have a minor impact the size of the wilderness characteristics area (2.3 percent). This will not disqualify the area from consideration of future protections.

## OVERVIEW OF THE OTHER ALTERNATIVES CONSIDERED

Other alternatives (see Figure 3) were not selected based upon resource considerations discussed in the rationale for the decision. Other alternatives analyzed in the Draft EIS/Final EIS consisted of:

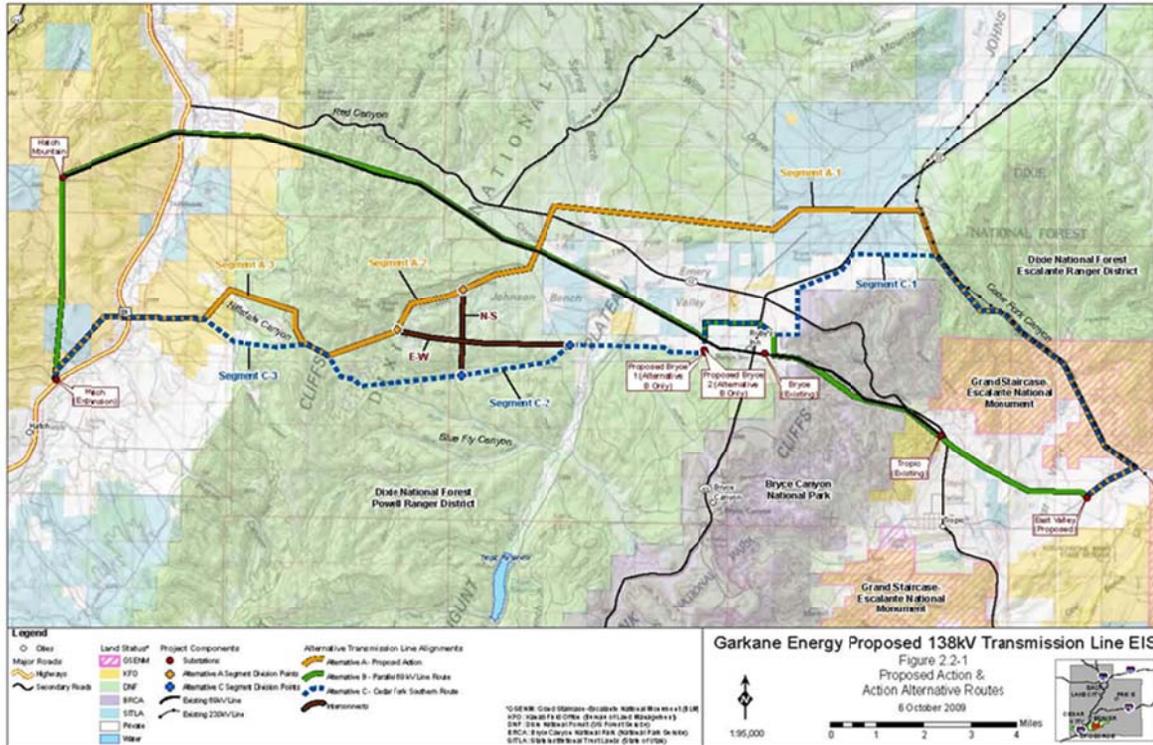


Figure 3

### Alternative A: Proposed Action

The Alternative A 100-foot-wide ROW would extend 30.41 miles. The route would begin at the proposed East Valley Substation located east of Tropic and extend northeast to adjoin the Rocky Mountain Power/PacifiCorp 230 kV transmission line ROW. The route would then parallel the west side of the Rocky Mountain Power/PacifiCorp transmission line route to the northwest across GSENM land and through Cedar Fork Canyon through a planning window for a utility ROW identified in the 1986 Dixie National Forest Land and Resource Management Plan (LRMP). The route would diverge from the 230 kV line access route and extend west across John's Valley and skirt just to the north of the Bryce Canyon Airport. The route would continue west for approximately 4 miles and turn south, crossing SR 12, and extend southwest across the Johnson Bench area, passing to the south of Wilson Peak. The route would continue west down Hillside Canyon through a planning window for a utility ROW identified in the 1986 LRMP and turn north for approximately 0.5 mile. The route would continue to the west, crossing private property (Sunset Cliffs), and extend west to cross U.S. 89 where it would turn to the southwest for approximately 2 miles to the Hatch Substation. The proposed route would cross 17.35 miles of DNF, 3.31 miles of KFO, 3.68 miles of GSENM, 4.23 miles of SITLA, and 1.84 miles of private lands.

The portion of the existing 69 kV line between the current Bryce Canyon Substation and the Hatch Mountain Substation would be removed (approximately 16.23 miles) and that portion of the ROW (including existing centerline access) would be rehabilitated.

Implementation of the Proposed Action would also require the amendment of the GSENM Management Plan (2000) by changing the designation of a 100-foot-wide 3.68-mile stretch (44.58 acres) of the Primitive Zone to Passage Zone, and within this area, changing the existing VRM Management Class designation from Class II to Class III.

This alternative would have resulted in greater impacts to sensitive species such as Utah prairie dogs and greater sage grouse, as it would have traversed large open habitat areas.

### **Alternative B: Parallel 69 kV Line Route**

The Alternative B 100-foot-wide ROW would extend 29.11 miles (Figure 3). This alternative route would begin at the proposed East Valley Substation located east of Tropic and extend west through the Tropic Substation (the Tropic Substation would be decommissioned) and then cross SR 12 and continue across BRCA (deviating slightly from the existing ROW for approximately 1.5 miles) to a point near the current Bryce Canyon Substation near Ruby's Inn. For this Alternative, the Bryce Canyon Substation would be decommissioned and a new replacement substation would be built at a new location approximately 1 mile to the west to allow for needed expansion. The route would extend approximately 0.5 mile to the north around Ruby's Inn, west across SR 63 and then parallel Garkane's existing 69 kV line ROW predominately across private and SITLA lands. The alternative route would parallel the existing ROW just to the south across the plateau in a northwest direction to Red Canyon, where it would generally follow the existing ROW through Red Canyon into Long Valley where it would cross U.S. 89 and continue to the Hatch Mountain Substation. From there the route would follow the existing line south to the Hatch Substation. This route would cross 5.58 miles of DNF, 8.29 miles of KFO, 2.81 miles of BRCA, 3.63 miles of SITLA, and 8.80 miles of private lands.

The entire existing 69 kV line from approximately 1 mile east of the existing Tropic Substation to the Hatch Mountain Substation would be removed (approximately 21.57 miles) and the ROW (including existing centerline access) would be rehabilitated. In addition, under Alternative B approximately 9 miles of distribution lines would need to be constructed primarily on private and SITLA lands in 50-foot rights-of-way in conjunction with the new substations.

Under this alternative the GSENM Management Plan would not be amended.

This alternative would have resulted in greater impacts to distinctive land areas, such as BRCA lands through extensive vegetation removal alongside the existing 69kV line.

### **Alternative C: Cedar Fork Southern Route**

The Alternative C 100-foot-wide ROW would extend 29.78 miles (See Figure 3). This alternative route would begin at the proposed East Valley Substation located east of Tropic and extend northeast to adjoin the Rocky Mountain Power/PacifiCorp 230 kV transmission line ROW. The route would then parallel the west side of the Rocky Mountain Power/PacifiCorp transmission line access to the northwest across GSENM land and through Cedar Fork Canyon through a planning window for a utility ROW identified in the 1986 LRMP. The route would

diverge from the 230 kV line access and extend west across John's Valley and follow the south side of State Route 22 for just under 2 miles and then follow the western boundary of BRCA for approximately 1 mile. The route would then extend west to the north of Ruby's Inn and across State Route 63. The route would continue west across the southern portion of Johnson Bench and to the upper reaches of Right Fork Blue Fly Creek. The route would drop off the plateau at this point and traverse an unnamed canyon to Hillsdale Canyon and would extend south of private property and continue west, crossing U.S. 89, where it would turn to the southwest for approximately 2 miles to the Hatch Substation. This route would cross 13.58 miles of DNF, 3.43 miles of KFO, 3.68 miles of GSENM, 2.06 miles of SITLA, and 7.03 miles of private lands.

The portion of the existing 69 kV line between the current Bryce Canyon Substation and the Hatch Mountain Substation would be removed (approximately 16.23 miles) and that portion of the ROW (including existing centerline access) would be rehabilitated.

Alternative C would also require the amendment of the GSENM Management Plan (2000) by changing the designation of a 300-foot-wide 3.68-mile stretch (133.81 acres) of the Primitive Zone to Passage Zone to accommodate both the proposed ROW and the existing 230 kV Rocky Mountain Power/PacifiCorp transmission line, as well as provide for future utility needs; and within this area, changing the existing VRM Management Class designation from Class II to Class III.

Although most of Alternative C was incorporated into the Selected Alternative, Segment C-2 would have required further road construction for the powerline construction and operation activities, resulting in greater resources impacts than those identified in Segment A-3.

### **Interconnect Options**

The locations of the North-South and East-West Interconnect options are shown on Figure 3. The purpose of the interconnect route options is to provide flexibility to decision makers to combine segments of the action alternatives to select the most appropriate route among the various alternatives to minimize impacts to resource values.

The North-South Interconnect option would extend 1.84 miles across DNF land west of Johnson Bench and could connect segments of Alternatives A and C together.

The East-West Interconnect option would extend 3.70 miles across DNF land south of Johnson Bench and could connect segments of Alternatives A and C together.

As mentioned above, Segment A-3 provided a better alternative to Segment C-3, so the East-West Interconnect option provided an interconnect to connect the two alternative segments.

### **Alternative D: No Action**

Under the No Action alternative, BLM would not issue a ROW for construction of the transmission line. The GSENM MMP would not be amended. Garkane's customers in the Hatch area would continue to be served by the existing 69 kV line. It is unknown how Garkane and their customers would respond to continued lack of adequate transmission capacity. It is possible they would continue to use diesel generators, overhaul the existing 69 kV line, implement new conservation measures, construct other local generation capability (possibly renewable), or some combination of these measures.

This alternative would not address the purpose and need of the project, and further would provide greater impacts to resources in terms of the impacts of diesel generator operation and potential future impacts related to powerline overhaul needs.

## **ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS**

### **Northern Circleville Alternative**

This alternative would parallel the existing Rocky Mountain Power/PacificCorp electrical grid east of Tropic northward to Antimony. There it would traverse the north end of the DNF paralleling SR 62 west to Kingston and then turn south and parallel U.S. 89 through Panguitch and then to Hatch.

There were several concerns associated with this alternative. It would increase the needed alignment length by approximately 90 miles, easily tripling the potential surface disturbance, including impacts to as much as 5 to 20 times more sage grouse and prairie dog habitat. Though it is not a central concern in selecting an alternative for analysis, the additional length would significantly increase proponent costs for analysis, construction, and maintenance. There would also be increased visual impacts as viewed from the Kanab Scenic Byway (U.S. 89). The alternative alignment would fall outside of Garkane's service area and require negotiation with other utility providers and many more private property owners.

This alternative would not reduce or resolve identified resource conflicts. It increases total surface disturbance and has the potential for equal or greater impacts to TES species and scenic quality than the proposed route. Though technically possible, the cost and location outside of Garkane's service area reduces project feasibility as it would increase the time required to meet customer demand. For these reasons, this alternative was eliminated from further analysis.

### **Southern Kanab Alternative**

This alternative would originate at the Buckskin Substation east of Kanab. From the substation the line would travel west, paralleling U.S. 89 to Kanab. There the line would turn north, paralleling U.S. 89 to Hatch. This alignment would cross GSENM, KFO, SITLA, and private lands.

One of the key issues associated with this alternative was that it would increase the needed alignment length by approximately 60 to 90 miles. This would double to triple the potential surface disturbance over the Proposed Action, including potential impacts to southwest willow flycatcher habitat. The alignment has the potential for equal or greater impacts to sage grouse and prairie dog habitat and increased visual impacts as viewed from about 40 miles of the Kanab Scenic Byway (U.S. 89). Though it is not a central concern in selecting an alternative for analysis, because of the length of the alignment, costs for analysis, construction, and annual maintenance would be significantly increased. This alternative would also require rebuilding the line from the Buckskin Substation to Kanab to handle the increased load, further adding to disturbance and costs.

This alternative would not meet purpose and need, as it would not extend the available energy supply at Tropic to Hatch and the surrounding area. Further, this alternative would not reduce or resolve resource conflicts, and in fact it has the potential for impacts to additional threatened, endangered, and sensitive species (southwestern willow flycatcher) and equal or greater impacts to other threatened, endangered, and sensitive species (sage grouse and prairie dog) and scenic quality. For these reasons and because of its limited feasibility, this alternative was eliminated from further analysis.

### **Buried Line Alternative**

Under this alternative, the transmission line from Tropic to Hatch or significant portions thereof would be buried.

The concern with this alternative was that underground lines of this voltage class last an average of 10 years before needing replacement. Underground lines of this magnitude (kV) are not feasible for this length and in this terrain. Buried lines of this length require redundancy (back-up service) should repairs be required. Any maintenance needs for an underground line would require a long shut-down period of electrical service from weeks to months, due in part to availability of materials. If lines were buried additional lines would be required to provide service during repairs.

This alternative would not meet purpose and need of the project, as it would not meet the needed service life. Nor does a buried line meet the purpose and need of this project to improve the reliability of the electrical system in a cost effective manner. Further, this alternative is not technologically feasible for the needed length or service during outages or maintenance, or in this terrain. For these reasons, this alternative was eliminated from further analysis.

### **Citizens' Proposed Segment Alternative North of Sunset Hills Property**

This proposed alignment segment originated from public scoping as a way to avoid crossing private property. The segment diverges from the proposed alignment at the mouth of Wilson Canyon, traverses DNF land to the east and north of the private property, and rejoins the proposed alignment just to the east of U.S. 89. One other citizen proposed alternative was considered and is analyzed as a part of Alternative C.

The primary concern with the proposed northern segment was that it was much longer than the proposed southern segment (Alternative C). This would increase costs and encumber more DNF lands. The northern alignment would cross 13,081 feet (30 acres) of the DNF and 16,526 feet (37.9 acres) of BLM land, whereas the southern alignment would cross 8,342 feet (19 acres) of DNF and 13,746 feet (31.6 acres) of BLM lands.

Because the proposed northern segment would increase impacts to resources as compared with an equally viable alternative (southern segment) that accomplishes the same objective of avoiding the private parcel, this alternative was eliminated from further analysis.

### **Retention of All or a Portion of the Existing 69 kV Line**

Should the existing 69 kV transmission line be retained – for any reason – it would require ongoing maintenance at an operational level. The National Electrical Safety Code requires that all lines be maintained at a level equal to or exceeding the code requirements at the time of construction or reconstruction. As described under the No Action alternative, the existing 69 kV transmission line would require overhaul in order to remain operational.

Retention of the existing 69 kV transmission line was considered to provide an alternate transmission line in case of outage. Based on outage records for the past 2 years, consumers served by the existing 69 kV transmission line would have experienced no less outage time had an alternate transmission route been available. Therefore the cost of maintenance of the existing 69 kV transmission line would not improve service to customers.

Retention of the existing 69 kV transmission line was also considered to provide transmission capacity in addition to the proposed 138 kV transmission line. Existing infrastructure transmitting electricity from Glen Canyon Dam to Tropic provides a maximum of 138 kV service. In order for the existing 69 kV transmission line to provide additional electrical service, the existing infrastructure would have to be upgraded to 230 kV service at a maximum cost of \$5 million, in addition to the cost of overhaul of the existing 69 kV transmission line, which would not be an economically viable option. (Garkane 2009) For these reasons, alternatives to retain a portion or all of the existing 69 kV transmission line were eliminated from further analysis.

### **Double-Stringing With Existing 230 kV Line**

An alternative was considered that would have combined the existing Rocky Mountain Power/PacifiCorp 230 kV transmission line with the proposed Garkane 138 kV transmission line into one single transmission line for approximately 3.68 miles through the GSENM. This option was considered impractical for many reasons that are listed below and was not carried forward for detailed analysis. Because a minimum 150-foot wide ROW would still be issued within the GSENM's Primitive Zone, this alternative would not eliminate the need to amend the GSENM Management Plan.

The existing 70-foot tall wooden pole structures used in the Rocky Mountain Power transmission line are not adequate to support the electrical capacity of both transmission lines. The Rocky Mountain Power transmission line would need to be replaced with steel mono-pole structures 125 to 150 feet in height, which could be twice as tall as the existing wooden pole structures and would be over twice as tall as the proposed 55-foot tall wooden pole structures. The single steel pole structures would likely cause a greater visual intrusion to the existing landscape.

This alternative would likely cause greater short and long-term disturbances within the GSENM. Large concrete foundations would need to be installed to support the larger steel pole structures. Heavy equipment would be needed to excavate much greater amounts of soil for the transmission line pole structure foundations. This, as well as removal of the existing Rocky Mountain Power transmission line, would require the construction of additional temporary access roads and work areas, some of which would remain long-term for inspection and maintenance activities.

This alternative would likely disrupt electrical service to customers in Utah. Even though a combined transmission line could be constructed parallel to the existing transmission line, it

would be necessary to temporarily take the existing line out of service as the electricity is “swapped” to the new line at appropriate intersections. This would involve turning off a critical element of the bulk electric system that connects Utah to Arizona. Other paths of electrical conveyance entering Utah from Arizona would also be disrupted.

Because this alternative would likely cause greater visual impacts to the GSENM’s landscape, greater short-term surface disturbance, and greater disruption of electrical service throughout Utah, this alternative was eliminated from detailed analysis.

## **ENVIRONMENTALLY PREFERRED ALTERNATIVE**

NEPA regulations require agencies to specify the alternative or alternatives considered to be environmentally preferable [40 CFR 1505.2(b)]. The consensus amongst the land management agencies (i.e., BLM, NPS, and USFS) is that the Selected Alternative is the Environmentally Preferred Alternative. The environmentally preferred alternative is the one that best meets the goals of Section 101 of NEPA. Section 101 emphasizes the protection of the environment for future generations; the preservation of historic, cultural, and natural resources; and attainment of the widest range of beneficial uses. The Selected Alternative does not cross BRCA, therefore avoiding potential impairment of park resources. The Selected Alternative is comprised of segments and portions of segments of Alternatives A and C, which were originally designed to avoid or minimize adverse impacts to wildlife, threatened and endangered species and their habitat, land use, and visual resources.

## **CONSULTATION AND COORDINATION**

### **Endangered Species Act (ESA) Section 7 Consultation**

Consultation with the United States Fish and Wildlife Service (USFWS) is required under Section 7 of the ESA. Section 7 directs all federal agencies to use their existing authorities to conserve threatened and endangered species and, in consultation with the USFWS, to ensure that their actions do not jeopardize listed species or destroy or adversely modify critical habitat. Section 7 applies to management of federal lands as well as other federal actions that may affect listed species, such as federal approval of private activities through the issuance of federal permits, licenses, or other actions.

Informal consultation with USFWS began on May 5, 2008 during the alternative development phase. During this development phase it was determined that the USFS would be the lead agency with regards to consultation. Requirements for Utah Prairie Dog (UPD) and Mexican spotted owl surveys were discussed along with design criteria for access roads within UPD habitat. Surveys for both species were initiated in spring and summer of 2009.

On November 10, 2010 the final Biological Assessment (BA) was submitted to USFWS with an addendum to the final filed on December 16, 2010. On February 2, 2011 the USFWS issued a Biological Opinion (BO) that included terms and conditions and an incidental take statement (Appendix 2). The terms and conditions identified in the BO are incorporated into the decision (Appendix 1) and will be fully implemented.

## **National Historic Preservation Act Section 106 Consultation**

Section 106 of the NHPA of 1966 requires federal agencies to take into account the effects of their undertakings on historic properties. Historic properties are properties that are included in the NRHP or that meet the criteria for the National Register. A Cultural Report was submitted to the State Historic Preservation Office (SHPO) for consultation and concurrence. The Utah SHPO concurred with the determination of eligibility and effects for this project (March 25, 2009). A copy of the letter from the Utah SHPO is available in the project record.

## **Tribal Consultation**

Tribal consultation is required by Executive Order 13175, which states, “Each agency shall have a process to ensure meaningful and timely input by Tribal officials in the development of regulatory policies that have Tribal implications.”

No concerns were raised by tribes concerning the project, as no impacts to cultural resources were identified. Tribal consultation included presentation of the project proposal to the Hopi and Kaibab Paiute during the GSENM June 2007 tribal consultation meetings, as well as notification letters sent to the Ute Indian Tribe, Hopi Tribal Council, Paiute Indian Tribe of Utah, Kaibab Band of Paiute Indians, Navajo Nation, and Pueblo of Zuni. Early consultation letters were sent to the tribes June 9, 2009, and follow-up contacts via phone were made with each tribe on June 25, 2009. Tribes consulted included:

Ute Indian Tribe Betsy Chapoose Director, Cultural Rights and Protection P.O. Box 190 Fort Duchesne, Utah 84026	Benjamin Nuvamsa Chairman Hopi Tribal Council P.O. Box 123 Kykotsmovi, Arizona 86039
Paiute Indian Tribe of Utah Dorena Martineau Cultural Resource Manager 440 North Paiute Drive Cedar City, Utah 84720	Kaibab Band of Paiute Indians Ona Segundo, Chairperson HC 65 Box 2 Pipe Spring, Arizona 86022
Navajo Nation President Joe Shirley, Jr. P.O. Box 9000 Highway 264, Tribal Hills Drive Window Rock, Arizona 86515	Pueblo of Zuni Norman Coeeyate, Governor P.O. Box 339 Zuni, New Mexico 87327

## **Consistency with State and Local Plans**

No inconsistency was identified with the Garfield County Economic Development Plan (December 2007) or the Garfield County General Plan (January 1998.)

## **PUBLIC INVOLVEMENT**

The public was provided a scoping period at the beginning of the EIS process to identify potential issues and concerns associated with the Proposed Action and Alternatives. The Notice of Intent for the EIS was published in the Federal Register on February 21, 2008.

Public scoping meetings were held at the following locations:

- Panguitch Library, March 12, 2008
- Cannonville Visitor Center, March 13, 2008

Public scoping meetings were advertised in a variety of formats at least two weeks prior to their scheduled dates. A notice was published in the Spectrum Newspaper. In addition, flyers were posted at post offices in the towns of Panguitch, Hatch, Tropic, Cannonville, Henrieville, Escalante, Glendale, and Orderville. Additional notices were posted at the Garfield County Courthouse, the Chevron gas station in Escalante, the Garkane Hatch office; and at Honey's and Glazier's grocery stores in Kanab.

A total of 38 comments were received in response to scoping. Of the comments received, 33 were from respondents in Utah, 6 of those from Garfield County. The remaining 5 letters were received from Arizona, California, and Idaho. The majority of comments received were from individuals; however, letters were also received from government agencies, non-governmental organizations, and businesses.

The Draft EIS was filed with the Environmental Protection Agency (EPA) on December 11, 2009. The comment period for the Draft EIS was from December 11, 2009 through March 12, 2010. A Notice of Availability was published in the Federal Register specifying the dates for the comment period and the date, time, and location of the public comment meetings. In addition, legal notices were published in the same area newspapers as the initial public scoping announcement. Interested parties identified in the updated EIS mailing list were notified of the publication of the Draft EIS. Hard copies were provided to those who requested them and electronic copies were made available via CD and the Internet. During and following the 90-day public review period, 19 letters from individuals, organizations, and agencies were received. The comments in each submittal were identified, analyzed, and addressed in the Final EIS.

## **APPEAL OF THE ROW DECISION**

The ROW decision shall take effect immediately upon issuance of a "Right-of-Way Grant Issued" decision by the Authorized Officer (Monument Manager, Grand Staircase Escalante National Monument). The ROW decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR Part 4. The ROW decision shall remain in effect while any appeal is pending unless the Interior Board of Land Appeals issues a stay (43 CFR 2801.10). Within 30 days of the ROW decision, a notice of appeal must be filed in the office of the Authorized Officer, Grand Staircase Escalante National Monument, 190 E. Center Street, Kanab, UT 84741. If a statement of reasons for the appeal is not included with the notice, it must be filed with the Interior Board of Land Appeals, Office of Hearings and Appeals, U.S. Department of the Interior, 801 Quincy Street, Suite 300,

Arlington, VA 22203 within 30 days after the notice of appeal is filed with the Authorized Officer.

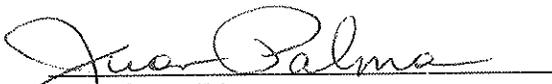
If you wish to file a petition for stay pursuant to 43 CFR Part 4.21(b), the petition for stay should accompany your notice of appeal and shall show sufficient justification based on the following standards:

1. The relative harm to the parties if the stay is granted or denied,
2. The likelihood of the appellant's success on the merits,
3. The likelihood of irreparable harm to the appellant or resources if the stay is not granted, and
4. Whether the public interest favors granting a stay.

If a petition for stay is submitted with the notice of appeal, a copy of the notice of appeal and petition for stay must be served on each party named in the decision from which the appeal is taken, and with the Interior Board of Land Appeals at the same time it is filed with the Authorized Officer.

A copy of the notice of appeal, any statement of reasons and all pertinent documents must be served on each adverse party named in the decision from which the appeal is taken, and also served on the Office of the Regional Solicitor, U.S. Department of the Interior, 6201 Federal Building, 125 South State Street, Salt Lake City, UT 84138-1180, not later than 15 days after filing the notice of appeal with the Authorized officer and/or Interior Board of Land Appeals.

### Approval Signatures

  
Utah State Director  
USDI – Bureau of Land Management

9/7/2011  
Date

### Contact Person

Matt Betenson  
Assistant Monument Manager for Planning and Support Services  
Bureau of Land Management  
Grand Staircase-Escalante National Monument  
190 E. Center St.  
Kanab, Utah 84741  
(435) 644-4309



## **APPENDIX 1 –TERMS AND CONDITIONS OF APPROVAL**

### **USFWS Conservation Measures**

The following terms and conditions must be implemented in addition to the Applicant Committed Conservation Measures outlined in the Description of the Proposed Action:

a) The BLM must designate one or more individuals to be responsible for overseeing compliance with the applicant committed conservation measures listed in the project description section and the terms and conditions contained in this biological opinion, and providing coordination with the USFWS.

b) A qualified biologist (A biologist with a bachelor's degree or graduate degree in biology, ecology, wildlife biology, mammalogy, or related fields. In addition, he/she must have a minimum of 20 hours of documented field experience surveying, monitoring or researching prairie dogs OR have completed the official FWS UPD Survey Training every 4 years) approved by the USFWS must be on site during construction within 350-feet of occupied UPD habitat:

- The qualified biologist will have the authority to halt activities which may be in violation of these terms and conditions.
- The qualified biologist must ensure that all construction activity is closely monitored to comply with these terms and conditions.
- The qualified biologist must monitor and document take and suspected take of UPDs.
- The qualified biologist must provide USFWS with a post-construction compliance report containing information concerning the construction (daily construction times) how the Terms and Conditions of this biological opinion were implemented, and how many UPDs were taken or suspected of being taken, along with their locations and times. This report must be submitted to us within one month of project completion.

c) Construction and maintenance vehicles must be operated in a manner to minimize impacts to UPD, including limiting vehicle speeds to 5 mph in occupied habitat in the project area. All construction related equipment, machinery, and activities will be permitted only in the designated staging areas within the project right-of-way during the life of the project. Vehicles used to access the project site or equipment used on the project must not be driven or parked within any UPD habitat outside of the project right-of-way. To implement reasonable and prudent measure number 2, the following terms and conditions must be implemented in addition to the Applicant Committed Conservation Measures outlined in the Description of the Proposed Action:

All construction related equipment, machinery, and activities will be permitted only in the designated staging areas within the project right-of-way during the life of the project. Vehicles used to access the project site or equipment used on the project must not be driven or parked within any UPD habitat outside of the project right-of-way.

The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, during the course of the action, this level of incidental take is exceeded, such incidental take represents new information requiring re-initiation of consultation and review of the reasonable and prudent measures provided or an amendment to this BO. You and Garkane must immediately provide an explanation of the causes of the taking and review with us the need for possible modification of the reasonable and prudent measures.

The following measures will be implemented by the project proponent for all construction and maintenance activities:

***General Project Conservation Measures***

- All construction and maintenance personnel will be required to attend an environmental training. The training will address environmental concerns, applicable environmental laws, and requirements for compliance. The training will highlight the UPD so that personnel are aware of the species and measures to be implemented to reduce potential impacts.
- All project employees shall be advised as to the definition of "take" and the potential penalties (up to \$50,000 in fines and one year in prison) for taking a species listed under the Endangered Species Act. Take is defined as, "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct; and may include significant habitat modification or degradation if it kills or injures wildlife by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering".
- To avoid the spread of noxious weeds, the following measures will be implemented:
  - A pre-construction weed inventory and treatment of weed-infested areas will be required.
  - To minimize the potential for the spread of noxious weeds, all equipment used during construction will be power washed off-site prior to entering the project area for the first time.
  - Ongoing monitoring and treatment of noxious and invasive species will be incorporated into Garkane's Operation and Maintenance, Plan. If necessary, Garkane will survey and treat, on a bi-annual basis (during the growing season), the right-of-way for noxious weeds for the first 10 years following completion of construction, and submit bi-annual reports to the BLM and DNF as requested.
  - If chemical weed control is used, only BLM and DNF-approved chemicals will be used by certified applicators.
  - Vegetation will be left in place and driven over by equipment wherever possible to avoid excessive damage and allow for re-sprouting.
  - After work is completed, Garkane will reseed areas where vegetation was disturbed. The seed mixture will be approved by the surface management agency or private landowner, using recommended planting methods to facilitate the restoration of habitat.
  - Seed mixes used for rehabilitation purposes will be certified noxious weed free. Revegetation of disturbed areas will be subject to BLM and DNF monitoring and inspection (at agency discretion) to ensure revegetation success. Based on findings, the BLM and DNF may require additional revegetation if the initial seeding is unsuccessful. The BLM and DNF will provide revegetation objectives to Garkane prior to project initiation.
  - Reseeded areas within grazing allotments may require additional measures to assure revegetation success. These areas may attract livestock that could graze on the reclamation areas. The individual surface management agency or land owner may require special measures such as herding, salting, and placement of water sources to attract cattle away from reclamation areas as needed. Larger areas

(such as lay-down yards and pulling sites) may require temporary fencing to exclude livestock.

- All construction trash and other waste will be properly contained, removed from the site, and disposed of at the proper facilities after construction. No open burning of trash will occur.
- Construction and maintenance personnel will not possess firearms or pets within the rights-of-way.
- Upon locating a dead or injured Federally listed species, initial notification must be made within one business day to the USFWS Division of Law Enforcement in Cedar City, Utah at telephone (435) 865-0861, the USFWS Ecological Services Office at telephone (801) 975-3330, and the Cedar City office of the Utah Division of Wildlife Resources at telephone (435) 865-6120. The DNF and BLM will also be notified if the take has occurred on their lands.

#### ***Access Related Conservation Measures***

- All vehicle and equipment movement outside of the right-of-way will be restricted to predesignated access areas, contractor acquired access, or public roads.
- Construction routes will be reclaimed.
- Access routes used solely for maintenance and operation of the transmission line will be closed to all other vehicle traffic.
- Vegetation will be left in place wherever possible to minimize ground disturbance and allow for natural recovery.

#### ***Utah Prairie Dog Conservation Measures***

- A protocol UPD survey will be conducted in the year of construction to ensure colonies have not expanded beyond their previously mapped boundaries. In addition to previously surveyed areas, this survey will assume an 80-foot radius around each structure and a 350 buffer around each structure and temporary use area. Results of the survey will be provided to the USFWS, BLM and DNF for approval prior to construction activities occurring in these areas.
- Where possible, structures will be placed outside of UPD colonies, with the conductor spanning them as much as feasible to minimize ground disturbance.
- Soil sterilants will not be used at structure sites within 350 feet of occupied UPD habitat.
- All maintenance of construction equipment will be performed at a suitable offsite location. In the event maintenance of equipment is required onsite it will not be performed on or within 350 feet of identified UPD colonies.
- A biological monitor will be present where construction activities occur within 350 feet of a UPD colony. The monitor will ensure UPD and their burrows are not crushed by personnel or equipment and that disturbance is limited to the minimum necessary to complete project activities. The monitor will walk equipment into active colonies, picking an access route that avoids active burrows and will ensure that crews are aware of active burrows and are trying to avoid them when installing new structures. Prior to crews installing structures in active colonies, all active burrows will be marked with pin flags to increase their visibility. The biological monitor will have the authority to halt construction if prairie dogs are in imminent danger from construction activities or equipment. Construction may proceed once the prairie dogs are no longer in danger, or if equipment is rerouted to avoid endangering prairie dogs. Routine maintenance activities will not require a biological monitor.

- Construction activities for the 138kV transmission line will be limited as much as feasible within active UPD colonies. An 80-foot radius work area will be flagged around each structure site and vehicles and equipment will not operate outside of this radius, with the exception of travel along the temporary centerline access route and designated temporary use areas. Limited foot traffic may still occur outside of the flagged area.
- No access roads will be constructed within active UPD colonies. Access within active UPD colonies will be limited to vehicle travel overland along the project centerline, and subsequent vehicles will follow these established tracks to minimize disturbance.
- Site-specific improvements (i.e. drainage crossings) will be kept to the minimum necessary to complete the project.
- To the extent feasible, once ground disturbing activities within a UPD colony begin, they will continue without interruption until completion to reduce the overall time of activity within active UPD colonies.
- Construction equipment and materials will not be staged within 350 feet of a UPD colony.
- Vehicle and equipment traffic within active UPD colonies will be restricted to the minimum necessary to complete construction activities.
- Vehicles and equipment operating within an active UPD colony will observe a speed limit of 5 mph or less.
- Vehicles, equipment, and materials will not be operated, parked or stored within an active UPD colony. Where feasible, a seasonal construction window will be observed for activities resulting in new ground disturbance in an active UPD colony. These activities will occur within the time when juvenile prairie dogs are active and moving about on their own (June 1 through August 31). If this window is not feasible, a qualified biologist will perform a survey within active UPD colonies prior to construction in the area to determine if juveniles and adults are still active. Results of this survey will be discussed with the USFWS and BLM or DNF to determine whether construction may proceed, or if additional consultation is required.
- Coordination with the USFWS and BLM or DNF will occur for major maintenance activities occurring within 350 feet of an active UPD colony. The result of this coordination may require additional surveys, monitoring, or other conservation measures prior to major maintenance activities.
- The BLM, USFS and/or Garkane will notify the USFWS within 48 hours of emergency maintenance activities within 350-feet of an active UPD colony, to discuss potential impacts.
- Raptor perch deterrents/discouragers will be used on poles to minimize perching in areas inhabited by the UPD as required by each surface management agency.
- Pay compensation at ratios and costs as outlined below:
- Garkane will mitigate for permanent impacts within potential UPD habitat (occupied or historic) by providing funding to purchase land that will be set aside in perpetuity for the conservation of UPD and their habitat. Land will be purchased at a ratio of 3: 1, or a cost of \$17,400 per acre disturbed. The total payment will be \$522 based on 0.03 acres of impact.
- Garkane will mitigate for temporary impacts within occupied UPD habitat by rehabilitating UPD habitat at a ratio of 2: 1, or a cost of \$4,000 per acre disturbed. The total payment will be \$36,640 based on the 9.16 acres of impact.

- A total of \$37,162 will be paid to the National Fish and Wildlife Foundation Utah prairie dog account. We are working with our partner organizations to identify suitable lands that we can purchase to set aside in perpetuity for UPD. Garkane's mitigation will be used to augment our land acquisition.

#### ***Mexican Spotted Owl Conservation Measures***

- Vegetation removal in the Cedar Fork region will be limited to the minimum necessary to facilitate construction, and maintain safe clearances for the proposed transmission line.
- If construction occurs in Cedar Fork Canyon during or after 2013, protocol Mexican spotted owl surveys will need to be repeated. Results of these surveys will be provided to the USFWS and DNF. If Mexican spotted owls are detected, consultation may need to be reinitiated.

#### ***Greater Sage Grouse***

- To minimize impacts to the sage grouse, construction activities within a 0.5-mile radius of an active lek will be avoided during the peak lek attendance period (April 1 through May 7).
- Raptor perch deterrents/discouragers will be used on poles to minimize perching in areas inhabited by the greater sage grouse as required by each surface management agency.
- Structures will be designed and installed in accordance with the Avian Protection Plan Guidelines developed by the USFWS' Avian Power Line Interaction Committee (2006) to minimize avian conflicts.

#### ***Migratory Birds***

- Migratory Birds, to meet the Migratory Bird protocol construction of the transmission line will not occur between (March 15-July 15).

#### ***Operations and Maintenance Conservation Measures***

Potential impacts resulting from maintenance activities have been broken down based on the type of maintenance activity (routine, major, or emergency), as defined in the Proposed Action section. Similar activities to those described below currently occur along the 69kV alignment. After construction, these activities will cease along the 69kV and commence along the 138kV alignment, thus offsetting some of the maintenance related impacts.

##### **Routine Maintenance Conservation Measures**

- All Garkane employees involved in maintenance patrols and repairs will be required to participate in a threatened and endangered species education program. This program will focus on the UPD and will provide identification information and outline appropriate Best Management Practices for working within UPD habitat.
- Where feasible, Garkane will limit vehicle ground patrols and routine maintenance work within 350 feet of occupied UPD colonies to the inactive period for UPD (September 1 through March 31). Only ATVs will be used for ground patrols within occupied colonies.
- Where applicable, trash and food items will be contained in closed containers and removed daily.
- Pets and firearms will be prohibited from the maintenance sites.
- Upon completion of maintenance activities, all unused equipment and material shall be removed from the project site.
- Garkane will notify the USFWS, DNF, and BLM within 24 hours of encountering any dead UPDs, regardless of the source of mortality.
- It will be Garkane's responsibility to ensure that a qualified biologist will perform a UPD survey within 350 feet of any routine maintenance requiring new ground disturbance

(e.g., road repair or vegetation removal). This will also require coordination with the USFWS and BLM or DNF depending on where the action will take place. A biological monitor will be present for any routine maintenance requiring significant new ground disturbance within an active colony.

#### ***Major Maintenance Conservation Measures***

- In addition to measures listed for routine maintenance, the following measures apply to major maintenance activities:
- Coordination with the USFWS and BLM or DNF will occur prior to any major maintenance activities depending on where the action will take place. The result of this coordination may require additional conservation measures not outlined here.
- A qualified biologist will perform a UPD survey within 350 feet of any major maintenance location within 350 feet of suitable habitat.
- A biological monitor will be present during any major maintenance activity within 350 feet of UPD occupied habitat.

#### ***Emergency Maintenance Conservation Measures***

- These activities are expected to have similar impacts as other maintenance activities; however, due to the urgent nature of these activities, conservation measures cannot always be employed. Garkane will notify the USFWS, BLM and DNF within 48 hours from the initiation of emergency maintenance activities within 350 feet of occupied UPD habitat.

### **AGENCY TERMS AND CONDITIONS OF APPROVAL**

#### ***Cultural Resources***

- Should any of the following be discovered during construction, such activities will cease in the immediate area of discovery and the BLM authorized officer will be notified immediately: (1) previously unidentified surface or subsurface cultural resources and/or (2) human remains and/or objects or materials subject to the Native American Graves Repatriation and Protection Act, as amended. An evaluation of the discovery will be made by the BLM authorized officer or agency representative to determine appropriate actions and avoidance measures that will prevent the loss of any significant cultural or scientific values. The authorized officer will make any decisions pertaining to mitigation measures after consulting with appropriate agencies. No operations will resume in the immediate area of the discovery until written authorization to proceed is issued by the BLM authorized officer or representative.
- Cultural resources will be protected by limiting access to known archaeological sites, educating employees about the importance of cultural resources, and implementing a strict management policy prohibiting collection of artifacts.
- Garkane will adhere to the requirements of the Cultural Resource Treatment Plan (CRTP) June 2011.

#### ***Paleontology***

- Should any paleontological resources be found during construction, work will be halted and the BLM authorized officer will be notified immediately. The authorized officer will make any decisions pertaining to mitigation measures after consulting with appropriate agencies. No operations will resume in the immediate area of the discovery until written authorization to proceed is issued by the BLM authorized officer or representative.

### ***Visual***

- No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate limits of survey or construction activity.
- When use of wood pole structures is not practicable, and the use of fiberglass or steel structures is approved, dark colored, non-reflective surfaces will be used.
- To the extent practicable, siting of individual structures will take advantage of both topography and vegetation as screening devices to restrict views of structures from visually sensitive areas.
- Vegetation openings for facilities, structures, routes, etc., will mimic the size, shape, and characteristics of naturally occurring openings to the extent practicable.
- Vegetation clearing design in highly visible forested areas will include feathering of right-of-way edges, i.e., progressive, selective thinning of trees from the edge of the right-of-way, mixing tree heights from the edge of the right-of-way, and creation of an irregular vegetation outline.
- Visual impact mitigation objectives and activities will be discussed with equipment operators prior to commencement of construction activities.
- Methods for disposal of slash from vegetation removal will be site dependent. Slash may be mulched and spread to cover fresh soil disturbances (preferred), hauled off site for disposal.
- Restoration activities specified here or in project-related documents will be undertaken by Garkane immediately after disturbances.
- Disturbed areas will be covered with stockpiled topsoil or mulch and revegetated using a mix of native species selected for visual compatibility with existing vegetation.
- Edges of revegetated areas will be feathered (strategically removing vegetation along the margins of the right-of-way at agency direction) to reduce form and line contrast with existing landscape.

### ***Water***

- Water needed during construction will be limited to that needed for dust control. The conditions of the Storm Water Pollution Prevention Plan will be imposed on all construction activities to avoid or limit sedimentation to surface waters.
- Equipment operation will be excluded from wetlands, stream channels, and wet meadows to limit soil damage, turbidity, and sediment production resulting from compaction, rutting, runoff concentration, and subsequent erosion. This practice is designed to prevent soil puddling, compaction, and displacement, and the concentration of surface water and soil erosion, which may lead to rill or gully erosion and subsequent water quality degradation. This measure is intended to prevent or reduce the need for corrective measures to solve water concentration problems due to equipment use.
- When applying herbicides, an untreated 300-foot buffer strip from each side of surface water, wetlands, or riparian areas will be left to minimize the risk of a pesticide entering surface or subsurface waters or affecting riparian areas, and wetlands.

### ***Land Use***

- Range improvements (e.g., fences, water developments, corrals, cattle guards) will be identified and protected from any damage associated with project activities.
- Proper signage will be posted in affected areas prior to and during construction if temporary road closures or restricted access were anticipated.

- In the event of property damage caused by construction and operations activities, Garkane will quickly investigate and reasonably attempt to settle with the party who incurred property damages.

### **Soils**

- Ingress and egress to pole locations will be on approved access routes as mapped and on right-of-way centerline to minimize disturbance to soil and biological soil crusts, especially in sparsely vegetated areas.
- Soil from pole and guy wire hole excavations will be used to refill the hole and any remainder evenly distributed over the disturbance area around the hole. In sensitive visual areas where different soil colors could distract from the view, excess soils will be removed from the site. Excess fill material will not be wasted down slope to avoid color contrast with existing vegetation/soils.
- Herbicide use for the control of noxious weeds will be applied in accordance with label requirements and comply with National and State policies and directives.
- Where temporary minor changes in contours occur during construction along the route, the area will be returned to near pre-construction contours through reshaping, as required by the authorizing agency. If any areas outside the *limited access areas* have slopes greater than 35 percent, tractor/equipment operation will not be permitted. This measure limits surface disturbance and keeps surface runoff water from concentrating. This *practice restricts* tractor operation to slopes where corrective measures for proper drainage such as water bars are easily installed and effective. Criteria that may be used to determine slope restrictions are soil stability, mass stability, infiltration rate, and soil water holding capacity. These data may be interpreted from soil and land type inventories, geologic maps, and climatic and hydrologic information. Subsequent field verification may be necessary.
- Tractor/equipment operation will be limited during times of high soil moisture levels to minimize soil compaction, puddling, rutting, and gullyng with resultant sediment production and loss of soil productivity. This measure minimizes surface disturbance during high soil moisture conditions which will result in compaction, puddling, rutting, and gullyng problems. This practice reduces the need to correct these soil and water resource problems later.

### **Weeds**

- A pre-construction weed inventory will be required, and early treatment of weeds if identified will occur prior to construction vehicles entering infested areas.
- To minimize the potential for the spread of noxious weeds, all equipment used during construction will be power washed off-site to remove all soil and plant material prior to entering the Project Area.
- Ongoing monitoring and treatment of noxious and invasive species will be incorporated into the Operation and Maintenance Plan. Garkane will bi-annually (during the growing season) survey and treat, if necessary, the right-of-way for new noxious weeds infestations for the first 10 years following end of construction if it is determined that construction or maintenance caused the growth. Garkane will submit bi-annual reports to the authorized officer if requested.
- Control and follow-up treatment of new invasive species specific to this project within the right-of-way is the responsibility of Garkane.

- If chemical weed control is used, only agency-approved chemicals will be used and applied by certified applicators.

### ***Revegetation***

- Where re-contouring is not required, vegetation will be left in place wherever possible to avoid excessive root damage and allow for re-sprouting.
- Re-vegetation of the Project Area, where necessary, is Garkane's responsibility and will be coordinated with the BLM authorized officer.
- Areas identified by the BLM will be seeded following construction activities using an agency-approved seed mixture and adhering to standards described in the right-of-way grant. Seed mixes used for rehabilitation purposes will be certified noxious weed free. Revegetation of the Project Area will be subject to agency monitoring and inspection (at agency discretion) to ensure adequate revegetation establishment. Based on these findings, BLM may require additional seeding or re-vegetation from Garkane if revegetation objectives are not adequately met. The BLM authorized officer will provide revegetation objectives to Garkane prior to project initiation.
- Reseeded areas within grazing allotments may require additional measures to assure effective revegetation. Reseeded areas around structures and other disturbances within grazing allotments may attract cattle to graze on new growth. Herding, salting, and placement of water sources may be used to attract cattle away from revegetated areas to allow vegetation to mature and become established. Larger reseeded areas (such as lay-down yards or pulling sites) may require temporarily fencing cattle out to allow for effective revegetation.

### ***Fire***

- Blasting along with use of mechanical equipment may be limited/restricted during drought conditions if fire restrictions are implemented. A waiver may be granted if Garkane can provide required mitigation measures such as hours of work, available water, and fire lookouts.

### ***General***

- The limits of construction activities will be predetermined, with activity restricted to and confined within those limits. The right-of-way boundary will be flagged in environmentally sensitive areas described in the Plan of Development to alert construction personnel that those areas will be avoided.
- Where feasible, structures will be placed or rerouted not less than 100 feet outside floodplains and wetlands to avoid sensitive features such as, but not limited to, riparian areas, water courses, and cultural sites to allow conductors to clearly span the features, within limits of standard tower design.
- Enclosed containment will be provided for all hazardous materials (if needed) and trash. All construction waste including trash, litter, garbage, other solid waste, petroleum products, and other potentially hazardous materials will be removed to a disposal facility authorized to accept such materials. Open burning of construction trash will not be conducted.
- Garkane will respond to complaints of line-generated radio or television interference by investigating the complaints and implementing appropriate mitigation measures. The transmission line will be patrolled regularly so that damaged insulators or other line materials that could cause interference are repaired or replaced.

- During construction and operation of the transmission line, the rights-of-way will be maintained free of construction-related debris.

#### *Access*

- Ground vehicles for material transportation and construction activities will not be used in limited access areas.
- All construction vehicle movement outside of the right-of-way will be restricted to pre-designated access, contractor acquired access, or public roads.
- Modifications to existing access routes and addition of centerline access will be limited to the minimum necessary for construction and maintenance.
- No long-term blockages of existing roads and trails as a result of project construction will be anticipated. Temporary traffic delays on existing roads and trails will be limited to 15 to 30 minutes. Delays impacting weekend and holiday traffic will be avoided.
- If damaged by construction activities, fences and gates will be repaired or replaced to their original pre-disturbed condition as required by the landowner or agency. Sixteen-foot steel stock gates will be permanently installed at intersections of the right-of-way with existing fences to facilitate access by Garkane and reduce improper All-Terrain Vehicle (ATV) use of the centerline route.
- Construction access routes will be reclaimed back to the minimum necessary for maintenance.
- Access routes solely for maintenance and operation of the transmission line will not be open to public travel. Administrative routes will be determined by authorizing agencies.
- Existing access and centerline routes used for the operation and maintenance of the existing 69 kV transmission line will be used to the extent possible for removal of the line. Access routes for the portion of the line to be removed will be reclaimed following removal activities as directed by authorizing agencies.

#### *Helicopter Use*

- Helicopters may be used for construction and maintenance where necessary for areas with steep terrain and roadless characteristics.
- An appropriate helispot will be identified prior to construction and will likely be located at the Bryce Canyon Airport if approved by the airport and the FAA.
- Contract helicopter use during an active fire operation must be authorized by the responding agency. Use of helicopters in the Project Area will be subject to all flight restrictions in effect for fire and emergency purposes. Wildfire response will take precedence. If there is a conflict because of fire management activities, the contract helicopter may be grounded for a period of time.
- During an active fire operation, Garkane will be required to contact Color Country Dispatch each morning to get the frequencies of all air attack aircraft in the area and notification of any temporary flight restrictions.
- Helicopter flights over recommended or designated wilderness areas will be avoided or limited to the existing right-of-way. They will follow the right-of-way and remain outside wilderness or recommended wilderness. Garkane will abide by the stipulations in the existing agreement between Garkane and BRCA.
- Only one helicopter at a time will be allowed in the Project Area and staging areas unless otherwise authorized.

- Activities related to helicopter use (e.g., traffic control, dust abatement) will be the sole responsibility of the contractor.

### ***Safety***

- The design, construction, operation, and maintenance of the transmission line and associated facilities will meet the requirements of the National Electrical Safety Code and U.S. Department of Labor Occupational Safety and Health Standards, as well as Garkane Energy's requirements for the safety and protection of landowners and their property.
- Garkane and any associated contractor will provide a safe work environment at all times. This includes barricading/covering/flagging holes when left for the day. At the end of the day all tools will be gathered, cached, and secured to prevent safety problems and vandalism.
- In FAA-controlled airspace, Garkane will follow all mitigations as required by the agency. These may include painting poles, placing balls on the line for visibility, and placing beacons or strobe lights on poles.

### ***Surveying and Engineering***

- Survey and preliminary engineering work will locate the transmission line centerline, determine accurate topographical profiles along the centerline, and determine the exact location of structures. Topographic profiles will determine specific transmission line structure design and location. The substation sites will also be surveyed for site layout and drainage.

### ***Right-of-Way Clearing***

- Portions of the right-of-way will require tree clearing. Industry standards and guidance were followed to calculate appropriate right-of-way widths and vegetation clearance requirements (RUS 2005, NERC 2008). Tree clearing and trimming is crucial for maintaining reliable service, especially during severe weather or disasters. Tree limb and branch contact with charged lines is a potential cause of power outages and a possible ignition source for fires. Removal of hazards and clearing of vegetation from the right-of-way assists in decreased wildfire risk and increased personnel safety. Clearance between conductors and vegetation must be maintained at all times in all conditions (e.g., sway, sag, snow loading). For a 138 kV transmission line, the required clearance is between 10 and 15 feet from conductors. Trimming will be done before limbs and branches grow to within these distances and will result in greater than the minimum distances to allow for new growth. In addition, the clearances between lines and vegetation must be visible from the ground so personnel working around lines can keep themselves and their tools away from danger. For these reasons, during construction of the line trees will be removed from the right-of-way in two distinct zones: the right-of-way zone and the hazard tree zone. Figure 2.3-3 on page 2-13 of the Draft EIS depicts vegetation and tree clearances.
- The right-of-way zone is within the designated right-of-way where lines, poles, and related facilities are located. The actual right-of-way width, and subsequently the vegetation management area, may vary, particularly at mid-span, to accommodate the maximum sway of the conductors. This zone will be kept clear of trees that can grow into the lines and cause power interruptions and wildfires.
- The second vegetation management area is called the hazard tree zone (Refer to Figure 2.3-3 of the Draft EIS). This zone is variable in width and extends out from the edge of the right-of-way. The width of the hazard tree zone is determined by terrain, tree height,

and sway of the transmission line. Any tree that can fall and hit the line is a potential hazard. Hazard trees will be felled or topped to avoid outages and to reduce fire hazard.

- Tree removal will be performed by a contractor familiar with logging practices. Trees will be removed with a tracked feller-buncher and skidded to a nearby staging or pulling area. Removal of merchantable timber will be approved by the DNF or relevant management agency.
- During a wildfire, electrical transmission lines can be damaged and taken out of service in three ways: (1) burning of the structures and hardware; (2) excessive heat from the fire below causing sag, melt, or alteration of the wire conductor; and/or (3) ionization caused by the heat and smoke which leads to flashover or arcing between the conductors. Experience has shown that managing the vegetation within the right-of-way to create light fuel conditions reduces the heat and smoke below the line during a wildfire and can avoid the long electrical outage associated with rebuilding a transmission line. In addition to tree removal within the 100-foot-wide right-of-way, all brush vegetation over 4 feet tall will be trimmed and mulched. Mulch could be stockpiled within the right-of-way for post-construction rehabilitation. Trimmings or slash in excess of mulch needs will be buried or removed from the site and disposed of. In areas of steep terrain, the height of the conductors may require little to no vegetation clearing.

#### ***Structure Site Clearing and Preparation***

- Clearing of vegetation will be required for construction purposes at structure site. It may also be required in the long term for electrical safety, maintenance, and transmission reliability. At each new structure site, an approximate radius of 80 feet will be disturbed by the movement of vehicles, assembly of structure elements, and necessary crane maneuvers. Assembly of structures will occur within the right-of-way. An area of 3 to 4 feet around each pole location will be treated with herbicides approved for use by the agency or landowner, except for structures located within 300 feet of riparian areas or BRCA. The herbicides typically leach into the surrounding soil and could affect a radius of 10 feet from the pole location. Disturbed soils in the vicinity that do not receive these herbicides will be reseeded and reclaimed after the structures are in place.

#### ***Substation Site Clearing, Grading, and Construction***

- The substation sites (2 to 3 acres) will be cleared of vegetation and construction equipment will rough-grade the site, establishing drainage for subsurface infrastructure (conduits, foundations, and grounding grids). Conduits, foundations, and grounding grids will be installed and enclosed with an 8-foot chain-link security fence. A 15-foot-wide access road will be cleared and graded for each substation site from the existing road and the substation gate. The substation and access road will be graveled to control vegetation and assist in drainage. Finally, the equipment and control building will be installed. The equipment used for the development of the substation will include graders, excavators, cement trucks, a tractor trailer, bucket trucks, pickup trucks, and a crane. Vegetation trimmings and/or mulch will be handled as described above under “Right-of-Way Clearing.”

#### ***Temporary Work Space Disturbance and Restoration (Lay-Down Yards and Pulling and Splicing Sites)***

- Mobilization activities and unloading of construction materials will occur for short periods of time at specific points along the project alignment called “lay-down yards.” Lay-down yards will likely be cleared of vegetation, and will be extensively disturbed,

but for a shorter period of time than construction yards. The number of lay-down yards that will be located along the alignment at approved and existing access roads. Each will occupy an area of approximately 200 by 600 feet. Lay-down yards will be located on both public and private property. Locations for lay-down yards are identified on figures in the Draft EIS.

- Conductor pulling and splicing sites, approximately 125 by 400 feet in size, will be established along the proposed alignment. The location and number of pulling and splicing sites are identified in figures within the Draft EIS. Reels of conductor and overhead shield wire will be delivered to these designated areas spaced about every 2 to 3 miles along the transmission line alignment and at each turning structure. Level locations will be selected so little or no earth moving will be required; however, these sites may have to be cleared of vegetation and will be disturbed by the movement of vehicles and other activities.
- Vegetation trimmings and/or mulch from any required clearing of lay-down yards and pulling and splicing sites will be handled as described above under “Right-of-Way Clearing.” Upon completion of the project lay-down yards and pulling and splicing sites will be rehabilitated to standards agreed upon with the agency or landowner.

#### ***Construction Materials Hauling***

- Construction materials will be hauled to the construction yards using the local highway network. Materials will be distributed from construction yards to lay-down yards for temporary storage, and ultimately delivered to structure sites using approved access routes.

#### ***Structure Foundation Excavation and Installation***

- Vertical excavations for both direct bury and concrete structure foundations (see Table 2.3-1 on page 2-6 of the Draft EIS) will be made with power augering equipment. A vehicle-mounted power auger or backhoe will be used where soils permit. In rocky areas, the foundation holes will be excavated by drilling or by installing special rock anchors. Spoil material (excavated soil) will be used for fill where suitable, and the remainder will be spread at the structure site.
- For wood and fiberglass structures, foundation excavation and installation will require access to structure sites by truck-mounted power augers or drill rigs, cranes, material trucks, and crew trucks. In limited access areas or areas too steep for trucks and heavy equipment, foundations will be excavated using power auger, hand tools, and/or dynamite as approved by authorizing agencies. Larger equipment (i.e., mini-excavator) will be flown in by helicopter and placed within 50 feet of the excavation site. Steel structures will require concrete foundations. Foundations will be excavated with track-mounted equipment and the concrete poured in place. In limited access areas, guys will be used to limit foundation depth and will be dug by hand or with a mini-excavator.

#### ***Structure Assembly and Erection***

- Structure placement activities include (1) mobilizing construction vehicles, equipment, and structure components along existing access routes and (2) assembling and erecting the structures. Sections of the new structures and associated hardware will be delivered to each structure site by flatbed truck. Erection crews will assemble new structures on the ground within the proposed right-of-way and lay-down yards. Using a large crane, crews will position the structures in the augered foundation holes and backfill around each pole. Structure placement activities will occur within the 100-foot-wide right-of-way and

within temporary work spaces. In limited access areas where cranes cannot be used, structures will be positioned using a helicopter.

#### ***Conductor Placement and Shield Wire Stringing***

- The conductors and shield wires will be pulled into place from the pulling and splicing locations. Stringing and tensioning sites will be selected to avoid environmentally sensitive resources. Pulling and splicing sites are proposed within the right-of-way or temporary work spaces.
- Crews will install insulators and sheaves at the end of each supporting structure cross arm. Sheaves are rollers that will be temporarily attached to the lower end of the insulators. The sheaves allow crews to pull sock lines (rope or wire used to pull transmission line conductors into place). Once the equipment is set up, a lightweight vehicle will pull the sock line from one supporting structure to the next where access along the line is available. At each structure, the sock line will be hoisted to the cross arm and passed through the sheaves on the ends of the insulators. The sock line will be used to pull the conductor through the sheaves. The conductors will then be attached to the sock line and pulled through each supporting structure under tension. After the conductors are pulled into place, they will be pulled to a pre-calculated sag and tension clamped to the end of each insulator. The final step of the conductor installation process is to remove the sheaves and install vibration dampers and accessories.
- Prior to pulling and splicing, workers will install temporary guard structures at crossings of roads and energized electric lines to prevent the sock line or conductors from sagging onto the roadway or other energized lines during the stringing operation.

#### ***Right-of-Way Cleanup and Restoration***

- Garkane will ensure construction sites, lay-down yards, pulling and splicing sites, and access routes are kept in an orderly condition during the construction period. Crews will collect excess mulch and trimmings, waste construction materials, and rubbish from all construction areas, haul them away, and dispose of them at approved sites. All construction areas not needed for normal maintenance will be returned to their original condition, where feasible, as specified by the agency or landowner. Any damaged gates and fences will be repaired. Garkane will be responsible for reseeding all temporarily disturbed areas, as determined by the agency or landowner, and monitoring for weed infestation.

#### ***Removal of Segment of Existing 69 kV Transmission Line***

- Rubber-tired vehicles will use existing access routes. Helicopter and/or pedestrian access will be used to access the pole structures in *limited access areas*, as approved by the authorizing agencies. Removal of the wood pole structures will involve cutting the wood poles at or slightly below the ground surface. The ground surface will be restored to its original grade, and the wood poles will be hauled away or disposed of at an approved landfill. Conductors will be pulled onto reels using a pulling truck and removed. Access routes no longer used for the old right-of-way will be reclaimed or left in place as defined by the policies of the managing agencies. Cleanup and restoration of the 69 kV transmission line right-of-way will be completed as described under “Right-of-Way Cleanup and Restoration” above.

## **APPENDIX 2 –BIOLOGICAL OPINION**