TROPIC TO HATCH 138 kV TRANSMISSION LINE

Final Environmental Impact Statement and Proposed Grand Staircase-Escalante National Monument Management Plan Amendment

U.S. Department of Agriculture
Forest Service
Intermountain Region
Dixie National Forest

Cooperating Agency:
U.S. Department of the Interior
Bureau of Land Management
Grand Staircase-Escalante
National Monument
and the Kanab Field Office

Cooperating Agency:
U.S. Department of the Interior
National Park Service
Bryce Canyon National Park

April 2011

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Final Environmental Impacts Statement for the Tropic to Hatch 138 kV Transmission Line and Proposed Grand-Staircase-Escalante National Monument Management Plan Amendment

( ) Draft **(X) Final**

Lead Agency:	U.S. Forest Service Dixie National Forest
Cooperating Agencies:	U.S. Bureau of Land Management Kanab Field Office U.S. Bureau of Land Management Grand Staircase-Escalante National Monument National Park Service Bryce Canyon National Park
Project Location:	Garfield County, Utah
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Date Final EIS Filed with EPA:	April 2011
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ABSTRACT

In compliance with the National Environmental Policy Act, this Final Environmental Impact Statement evaluates the environmental effects of the construction, operation, and maintenance of the Tropic to Hatch 138 kV Transmission Line proposed by Garkane Energy Cooperative in Garfield County, Utah, on lands currently managed by the U.S. Forest Service, Dixie National Forest; U.S. Bureau of Land Management, Kanab Field Office, Grand Staircase-Escalante National Monument; State of Utah School and Institutional Trust Lands Administration; and potentially the National Park Service, Bryce Canyon National Park. The Final Environmental Impact Statement documents the Preferred Alternative route and proposed amendment of the Grand Staircase-Escalante National Monument Management Plan which would create a Passage Zone and change the Visual Resource Management classification in the Monument such that the right-of-way for the proposed 138 kV transmission line would conform to the Management Plan.

The Preferred Alternative and Action Alternatives include construction, operation and maintenance of a 138 kV electric transmission line from Tropic, Utah extending approximately 30 miles west to Hatch, Utah along with associated permanent and temporary project areas. Associated federal actions include Dixie National Forest issuance of a special use authorization, Bureau of Land Management issuance of a right-

of-way, proposed amendment to the Grand Staircase-Escalante National Monument Management Plan and issuance of a right-of-way, potential Bryce Canyon National Park issuance of a special use permit for a right-of-way, and Utah School and Institutional Trust Lands Administration issuance of a right-of-way for construction and operation of the project.

This Final Environmental Impact Statement and Proposed Plan Amendment responds to public comments received on the Draft Environmental Impact Statement and Draft Management Plan Amendment for the Grand Staircase Escalante National Monument. This document is expected to be used in conjunction with the Draft Environmental Impact Statement published in December 2009. The two documents, together, make up the Final Environmental Impact Statement for the Tropic to Hatch 138 kV Transmission Line. Protests to the Proposed Management Plan Amendment, pursuant to BLM's planning regulations at 43 CFR 1610.5-2, must be filed within 30-days of the date that the United States Environmental Protection Agency publishes the Notice of Availability in the Federal Register.

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Acronyms and Abbreviations

BLM	Bureau of Land Management
BRCA	Bryce Canyon National Park
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
DEIS	Draft Environmental Impact Statement
DNF	Dixie National Forest
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FEIS	Final Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act
GSENM	Grand Staircase-Escalante National Monument
KFO	Kanab Field Office
kV	Kilovolt
LRMP	Land and Resource Management Plan
MP	Management Plan
NEPA	National Environmental Policy Act
NPS	National Park Service
RMP	Resource Management Plan
ROD	Record of Decision
SITLA	School and Institutional Trust Lands Administration
UPD	Utah Prairie Dog
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
VRM	Visual Resource Management

1. INTRODUCTION

This Final Environmental Impact Statement (FEIS) for the Tropic to Hatch 138 kilovolt (kV) Transmission Line and Grand Staircase-Escalante National Monument (GSENM) Proposed Management Plan (MP) Amendment was prepared by the U.S. Forest Service (USFS), Dixie National Forest (DNF), with cooperation of the Bureau of Land Management (BLM), Kanab Field Office (KFO) and GSENM; the National Park Service (NPS), Bryce Canyon National Park (BRCA); and the Utah State Institutional Trust Lands Administration (SITLA).

This FEIS has been developed in accordance with Council of Environmental Quality (CEQ) regulation 40 Code of Federal Regulations (CFR) 1503.4(c), which provides the methodology for preparing an "abbreviated" FEIS. This approach was selected because the comments received on the Draft EIS required only minor changes. None of the public and agency comments question the analysis in the Draft Environmental Impact Statement (DEIS) or require additional analysis. Because an abbreviated FEIS was prepared, the Tropic to Hatch 138 kV Transmission Line and GSENM MP Amendment DEIS released in the *Federal Register* on December 11, 2009, is incorporated by reference into this document and is made part of the FEIS.

It is the intent of the BLM and the NPS, as cooperating agencies, to adopt this EIS in accordance with 40 CFR 1506.3. Each cooperating agency will issue a separate decision on whether to grant a right-of-way permit based on the analyses contained in this EIS.

1.1. BACKGROUND

Garkane Energy Cooperative (Garkane) delivers propane and electrical service to more than 11,000 customers in northern Arizona and southern Utah. Garkane owns, operates, and maintains an existing electrical delivery system currently serving communities in Garfield and Kane counties, Utah, including Tropic, Cannonville, Henrieville, Bryce Canyon City, Hatch, and portions of Panguitch, Spry, Alton, Cedar Mountain, and Long Valley. Growth in the local communities has resulted in increased electrical loads that exceed Garkane's existing system capacity. Consequently, Garkane has filed applications for rights-of-way grants with the DNF, GSENM, KFO, and BRCA proposing construction of a new 138 kV transmission line that would replace some or all of the existing 69 kV transmission line and increase the capacity of Garkane's electrical delivery system in this area of southern Utah.

The purpose of the project is to:

- Increase electrical transmission capacity to 138 kV between Tropic and Hatch to meet present and future electrical demands west of Tropic in the Hatch area.
- Eliminate the need for routine use of back-up diesel generators to produce electricity to meet system demands in the Hatch area.
- Improve reliability of the electrical system.
- Provide a cost-effective means to convey sufficient electricity to meet the growing needs of Hatch and the surrounding area.

The DEIS analyzes the potential environmental impacts from installation of the proposed 138 kV transmission line and associated infrastructure; and removal of some or all of the existing 69 kV transmission line for three Action Alternatives in addition to the No Action: Alternative A, the Proposed Action; Alternative B, Parallel the Existing 69 kV route; and Alternative C, the Cedar Fork Southern Route (**Figure 1**).

Analysis was also provided for the North-South and East-West Interconnect route options, the purpose of which was 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.

Alternative E, the Agency Preferred Alternative, was developed through a joint effort of all agencies (USFS, BLM, NPS) taking into consideration the impacts of all of the resources along the routes. Alternative E, the Agency Preferred Alternative, is comprised of Segment C1, the East-West Interconnect option, and a combination of portions of Segments A-3 and C-3 also referred to as Segment E-3.

The DEIS also addresses amending the GSENM MP. All but one of the Action Alternatives would place the proposed transmission line in an area of the GSNEM designated as Primitive Zone. GSENM Management Plan 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 would occur in an area designated in the plan as a Visual Resource Management (VRM) Class II, and placement of such facilities would not be consistent with Class II objectives (GSENM Plan decision VRM-1). Therefore, the Action Alternatives crossing GSENM would not conform to the GSENM Management Plan; a plan amendment would be required for the agency to implement any of the Action Alternative routes crossing GSNEM.

Alternative E, the Agency Preferred Alternative, includes a proposed amendment of the GSENM MP (2000) to change the designation of a 300 foot wide 3.68 mile portion of the a Primitive Zone to Passage Zone to accommodate both the proposed right-of-way and the existing 230 kV Rocky Mountain Power/PacifiCorp transmission line and its associated 130 foot right-of-way. The Plan amendment would also change the existing VRM Management Class designation from Class II to Class III.

1.2. DRAFT ENVIRONMENTAL IMPACT STATEMENT

The DEIS was filed with the Environmental Protection Agency (EPA) on December 11, 2009. The comment period for the DEIS 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 DEIS. Hard copies were provided to those who requested them and electronic copies were made available via CD and the Internet.

The DEIS contains analysis of three Action Alternatives, the North-South and East-West Interconnect route options and the No Action. Chapter 2 of the DEIS also identifies the Agency Preferred Alternative. Since the Agency Preferred Alternative route is comprised of segments or portions of segments analyzed under the other Action Alternatives in the DEIS, the route is fully analyzed in the DEIS. This FEIS details this analysis in comparison with the other Action Alternatives presented in the DEIS.

During and following the 90-day public review period, 19 letters from individuals, organizations, and agencies were received, which were organized into 88 comments and requests for information. Of those comments, only 20 resulted in text changes to the document.

Figure 1. Proposed Action and Action Alternative Routes

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1.3. HOW TO USE THIS FEIS

This document is meant to be used in conjunction with the DEIS. The two documents, together, make up the FEIS for the Tropic to Hatch 138 kV Transmission Line and Proposed GSENM MP Amendment. As stated in **Section 1.2**, since Alternative E, the Agency Preferred Alternative route is comprised of segments or portions of segments analyzed under the other Action Alternatives in the DEIS, the route is fully analyzed in the DEIS. Disturbance acreages and other data specific to the Alternative E, the Agency Preferred Alternative, are provided in **Section 2** of this FEIS. Errata are included in **Section 3**. Some changes, clarification and updates to the DEIS were made as a result of the comments received on the DEIS. Comments on the DEIS, agency responses, and resulting text changes are included in **Appendix 1**. Public and agency comment letters on the DEIS are included in **Appendix 2**.

1.4. FEIS DISTRIBUTION

The officials, agencies, tribes, and organizations listed in the consultation and coordination section of the DEIS have received a printed or electronic copy of this document. All individuals who commented on the DEIS and those who requested the FEIS were also provided a copy of this document.

2. AGENCY PREFERRED ALTERNATIVE

The Agency Preferred Alternative is Alternative E (**Figure 2**), which contains the segment combining portions of Alternatives A and C called E-3. Segment E-3 begins where the East-West Interconnect, joins the Alternative A route and terminates at the Hatch Substation. The following description of the Agency Preferred Alternative expands upon and replaces that in Section 2.11 of the DEIS.

The 100-foot-wide right-of-way for Alternative E, the Agency Preferred Alternative route would begin 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 would then follow Segment A-3 for 1.6 miles to the point where it intersects Segment C-3 and would follow the remainder of Segment C-3, terminating at the Hatch Substation for 6.76 miles. The total length of the preferred route would be 29.41 miles.

The proposed 100-foot right-of-way for Segment E-3 would be 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 would be removed using the techniques discussed in Section 2.3.3 of the DEIS.

Alternative E, the Agency Preferred Alternative, would also require an amendment of the GSENM MP (BLM 2000) by changing the designation of a 300-foot-wide 3.68-mile stretch (133.74 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.

Alternative E was selected as the Agency Preferred Alternative considering the following issues and resource impacts:

Segment C-1 was selected as part of the Alternative E, the Agency Preferred Alternative because it

- Parallels the existing 230kV Rocky Mountain Power/PacifiCorp transmission line through the GSENM.
- 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 (The window areas designated in the DNF Land and Resource Management Plan [LRMP; 1986] are critical segments of terrain through which energy transportation and utility rights-of-way could pass in traversing the Forest).
- Has fewer impacts to Utah prairie dogs (*Cynomys parvidens*; UPD) and Greater sage-grouse (*Centrocerus urophasianus*):
    - Alternative C was developed by the interdisciplinary team to reduce impacts to Greater sage-grouse and UPD on the Paunsaugunt Plateau from either Alternative B or A.
    - 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 a part of the Alternative E, the Agency Preferred Alternative because it

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

The section of Segment A-3 that was selected as a part of Alternative E, the Agency Preferred Alternative, to reconnect Segment C-1 to Segment C-3:

- Takes advantage of utilizing the planning window area (Hillsdale Canyon-Ahlstrom Hollow) identified in the DNF LRMP (1986).
- Crosses the Red Canyon South unroaded /undeveloped area but no roads would be built to construct the line. This portion of the line would be *limited access* and would require construction using horses, mules, or helicopters.

Segment C-3 south of Hillsdale Canyon private property:

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

Other issues:

- Alternative B through Bryce Canyon involved the building of an additional substation on the Paunsaugunt Plateau with additional disturbances.
- The Preferred Alternative is consistent with the BLM's multiple use mandate.
- The Preferred Alternative provides a practicable alternative to disturbing BRCA resources in such a way that is not consistent with the mission of the NPS.
- Visual impacts were considered in respect to the State Route 12 Scenic Byway (All American Road) and the visuals of a larger line through BRCA.
- The Preferred Alternative allows the removal of the 69 kV line through scenic Red Canyon on the DNF.
- 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.

Alternative E, the Agency Preferred Alternative route, is comprised of segments or portions of segments analyzed under the other Action Alternatives in the DEIS; the route is fully analyzed in the DEIS. However comparison data were not provided in the DEIS specific to this route. Section 2.10 of the DEIS, Comparison of Alternatives and Summary of Impacts, contains seven tables summarizing data pertinent to the Action Alternatives, but the tables in the DEIS do not include Alternative E, the Agency Preferred Alternative. **Tables 2.1-1** and **2.1-2** below detail the land management, and long- and short-term disturbance associated with Alternative E, the Agency Preferred Alternative. **Table 2.10-1** through **Table 2.10-7** below have been augmented to include comparison data for Alternative E, the Agency Preferred Alternative and replace the corresponding tables in the DEIS. Revisions and additions to **Table 2.10-7** have also been made as detailed in the errata (**Section 3**). These revisions and/or additions are underlined.

Because the North-South Interconnect option is not part of the Preferred Alternative or any of the Action Alternatives it has been omitted from discussions and replacement tables in this FEIS.

Table 2-1. Total Long-Term Surface Disturbance and Land Management for Alternative E: Agency Preferred Alternative

Alternative E Segment	Long-Term Disturbance* (Acres)						
	Private	SITLA	KFO	GSENM	DNF	BRCA	Total
Segment C-1	13.97	1.58	0.00	6.74	9.12	0.00	31.41
E-W Interconnect	0.00	0.00	0.00	0.00	5.85	0.00	5.85
Segment E-3	2.24	1.68	5.42	0.00	4.19	0.00	13.54
Alternative E Total	***16.21***	***3.26***	***5.42***	***6.74***	***19.16***	***0.00***	***50.80***

*Includes long-term disturbance associated with power poles, substations, substation access routes, existing access road upgrades, and a 10-foot-wide centerline access route.

Table 2-2. Total Short-Term Surface Disturbance and Land Management for Alternative E: Agency Preferred Alternative

Alternative E Segment	Short-Term Disturbance* (Acres)						
	Private	SITLA	KFO	GSENM	DNF	BRCA	Total
Segment C-1	68.72	7.23	0.00	23.27	48.30	0.00	147.52
E-W Interconnect	0.00	0.00	0.00	0.00	24.97	0.00	24.97
Segment E-3	1.74	6.95	30.32	0.00	22.54	0.00	61.55
Alternative E Total	***70.46***	***14.18***	***30.32***	***23.27***	***95.81***	***0.00***	***234.04***

*Includes short-term disturbance associated with pulling and splicing sites, lay-down areas, and power pole (H-structure) installation. Some overlap between disturbance areas exists because a single area could be used for multiple alternatives. *Limited access areas* were not analyzed for short-term disturbance associated with pole installation. This table does not contain short-term disturbance associated with the removal of the existing 69 kV transmission line; this acreage is found in **Table 2.10-6** at the end of this chapter.

Figure 2. Alternative E, Agency Preferred Alternative Route

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Table 2.10-1. Comparison of Alternatives by Project Elements

ALTERNATIVE A - PROPOSED ACTION	ALTERNATIVE B - PARALLEL 69 KV LINE ROUTE	ALTERNATIVE C - CEDAR FORK SOUTHERN ROUTE	ALTERNATIVE E – AGENCY PREFERRED ALTERNATIVE
Transmission Line			
100-foot right-of-way along entire length of line (368.5 acres).	Same as Alt. A (353.17 acres).	Same as Alt. A (361.48 acres).	Same as Alt. A (356.89 acres).
Wood H-frame structures (poles 15.5 feet apart) and approximately 65 feet tall. Poles would be buried approximately 10 feet. Span length of approximately 500 feet (10 poles per mile). Assume 0.37 acre of long-term disturbance per mile. Assume 80-foot radius (0.46 acre) of short-term disturbance for each pole location (4.6 acres per mile). Turning structures would consist of three poles and be 17.5 to 23.5 feet apart. These structures would be guyed.	Same as Alt. A.	Same as Alt. A.	Same as Alt. A
Line Removal			
Portion of existing 69 kV line between current Bryce Canyon Substation and Hatch Mountain Substation would be removed (16.23 miles).	Existing 69 kV line from approximately 1 mile east of the Tropic Substation to the Hatch Mountain Substation would be removed (21.57 miles).	Same as Alt. A.	Same as Alt. A.
Substations			
New and expanded substations would have bus work approximately 15 feet tall. Area would be graveled, free of vegetation, and fenced. Low-profile sodium lights would be used periodically.	Same as Alt. A.	Same as Alt. A.	Same as Alt. A

ALTERNATIVE A - PROPOSED ACTION	ALTERNATIVE B - PARALLEL 69 KV LINE ROUTE	ALTERNATIVE C - CEDAR FORK SOUTHERN ROUTE	ALTERNATIVE E – AGENCY PREFERRED ALTERNATIVE
New (East Valley) Substation would be constructed on 3 acres.	New (East Valley) Substation would be constructed on 3 acres and would include more structures and equipment than under Alternatives A and C.	Same as Alt. A.	Same as Alt. A.
Existing Tropic Substation would remain as it is currently.	Existing Tropic Substation would be removed. The proposed East Valley Substation would have a total footprint of 3 acres.	Same as Alt. A.	Same as Alt. A.
Existing Bryce Canyon Substation would remain as it is currently.	One new substation would be required in Bryce Valley. The existing Bryce Canyon Substation would be decommissioned and a new replacement substation to the west of Bryce Canyon City would be built. It would be located in one of two new locations (Option 1 on DNF land. Option 2 on private land.). Total disturbance footprint of 2 acres.	Same as Alt. A.	Same as Alt. A.
Hatch Mountain Substation would be decommissioned.	Same as Alt. A.	Same as Alt. A.	Same as Alt. A.
Existing Hatch Substation would be expanded by 2 acres.	Same as Alt. A.	Same as Alt. A.	Same as Alt. A.
Distribution Lines			
No additional distribution lines would be required.	Construction of a total of 9 miles of additional distribution lines within 56 acres of 50-foot-wide right-of-way on a combination of public and private property.	Same as Alt. A.	Same as Alt. A.
Temporary Workspaces			

ALTERNATIVE A - PROPOSED ACTION	ALTERNATIVE B - PARALLEL 69 KV LINE ROUTE	ALTERNATIVE C - CEDAR FORK SOUTHERN ROUTE	ALTERNATIVE E – AGENCY PREFERRED ALTERNATIVE
7 lay-down yards of approximately 2.75 acres each (19.25 acres total).	7 lay-down yards of approximately 2.75 acres each (19.25 acres total).	8 lay-down yards of approximately 2.75 acres each (22.00 acres total).	Same as Alt. C
35 pulling and splicing areas of approximately 1.15 acres each (40.25 acres total).	29 pulling and splicing areas of approximately 1.15 acres each (33.35 acres total).	41 pulling and splicing areas of approximately 1.15 acres each (47.15 acres total).	37 pulling and splicing areas of approximately 1.15 acres each (42.55 acres total).
Access Roads/Routes			
Limited access areas in Cedar Fork Canyon of Segment A-1 (0.82 mile), Blue Fly Canyon* area of Segment A-3 (.71 miles), and Red Canyon for line removal (3.55 miles) for a total of 5.08 miles.	*Limited access areas* in BRCA (2.52) and Red Canyon for line removal (3.55) for a total of 6.07 miles.	*Limited access areas* in Cedar Fork Canyon of Segment C-1 (0.82 mile), two small portions of Segment C-3 (1.16 miles), and Red Canyon for line removal (3.55 miles) for a total of 5.53 miles.	*Limited access areas* in Cedar Fork Canyon of Segment C-1 (0.82 mile); Blue Fly Canyon*; two portions of Segment E-3 one 0.71 miles and the other 0.67 mile; and Red Canyon for line removal (3.55 miles) for a total of 5.75 miles.
Existing forest roads and BLM roads would be used to access the right-of-way. Though some minor maintenance would be required, no additional disturbance is assumed for these existing roads. Forest Roads—Maintenance Class 2 (suitable for high clearance vehicles) BLM Roads—all considered open (“native, unimproved” and “native, maintained”).	Same as Alt. A.	Same as Alt. A.	Same as Alt. A.
The existing access route through Cedar Fork Canyon area would need to be improved. The route would be bladed and new material would be brought in where needed. Additional disturbance of 2 feet in width along the west side of the route is assumed (1.89 acres).	No access roads would be needed in Cedar Fork Canyon area. There would be no access roads within BRCA. One-time access for construction would be granted for the rim pole just inside the Park boundary.	Same as Alt. A.	Same as Alt. A.

ALTERNATIVE A - PROPOSED ACTION	ALTERNATIVE B - PARALLEL 69 KV LINE ROUTE	ALTERNATIVE C - CEDAR FORK SOUTHERN ROUTE	ALTERNATIVE E – AGENCY PREFERRED ALTERNATIVE
A two-track access route (10-foot-wide area of disturbance is assumed) would be developed along the entire centerline of the proposed right-of-way, except the portions of the right-of-way that traverses *limited access areas*, for a total of 26.88 miles.	A two-track access route (10-foot-wide area of disturbance is assumed) would be developed along the centerline of the proposed right-of-way, except the portions of the right-of-way that traverses *limited access areas*, including BRCA, for a total of 22.75 miles.	Same as Alt. A, except that there would be a total of 27.80 miles.	Same as Alt. A, except that there would be a total of 27.2 miles.
Proposed GSENM Management Plan Amendment			
Change designation of a 100-foot-wide 3.68-mile stretch (44.58 acres) of the Primitive Zone to Passage Zone, and within this area, change the existing VRM Management Class designation from Class II to Class III.	No Passage Zone or amendment to the Management Plan would be required as Alternative B does not traverse the GSENM.	Change designation of a 300-foot-wide 3.68-mile stretch (133.74 acres) of the Primitive Zone to Passage Zone, and within this area, change the existing VRM Management Class designation from Class II to Class III.	Same as Alt. C.

*For the purposes of this project, references to *Blue Fly Canyon* are defined as the tributary of Hillsdale Canyon that drains westward out of the head of the Right Fork of Blue Fly Creek.

Table 2.10-2. Comparison of Alternatives by Project Area

Alternative	Project Area* (Acres)						
	Private	SITLA	KFO	GSENM	DNF	BRCA	Total
Alternative A							
Segment A-1	21.19	41.48	0.00	50.58	153.14	0.00	266.39
Segment A-2	0.00	0.00	0.00	0.00	26.65	0.00	26.65
Segment A-3	13.93	14.40	51.45	0.00	61.00	0.00	140.78
69 kV Line Removal – Alternative A	27.44	3.94	8.37	0.00	9.89	0.00	49.64
Alternative A Total	***62.56***	***59.82***	***59.82***	***50.58***	***250.68***	***0.00***	***483.46***
Alternative B							
Alternative B Total	***146.04***	***45.84***	***115.61***	***0.00***	***76.33***	***34.44***	***418.26***
Alternative C							
Segment C-1	118.44	14.63	0.00	50.58	92.86	0.00	276.51
Segment C-2	0.00	0.00	0.00	0.00	38.71	0.00	38.71
Segment C-3	4.97	14.4	53.71	0.00	78.50	0.00	151.58
69 kV Line Removal – Alternative C	6.35	3.94	8.37	0.00	9.89	0.00	28.55
Alternative C Total	***129.76***	***32.97***	***62.08***	***50.58***	***219.96***	***0.00***	***495.35***
Alternative E – Agency Preferred Alternative							
Segment C-1	118.44	14.63	0.00	50.58	92.86	0.00	276.51
East-West Interconnect	0.00	0.00	0.00	0.00	48.65	0.00	48.65
Segment E-3	6.30	14.85	54.24	0.00	52.40	0.00	127.79
69 kV Line Removal – Alternative E	6.35	3.94	8.37	0.00	9.89	0.00	28.55
Alternative E Total	***131.09***	***33.42***	***62.61***	***50.58***	***203.80***	***0.00***	***481.50***

*The Project Area contains the 100-foot right-of-way, substation sites and their associated access roads; all temporary work spaces outside the right-of-way; and the disturbance area associated with the existing 69 kV transmission line removal.

Table 2.10-3. Comparison of Alternatives by 100-foot Right-of-Way Encumbrances*

Alternative	Right-Of-Way (Acres)						
	Private	SITLA	KFO	GSENM	DNF	BRCA	Total
Alternative A							
Segment A-1	17.32	38.41	0.00	44.58	136.47	0.00	236.78
Segment A-2	0.00	0.00	0.00	0.00	21.19	0.00	21.19
Segment A-3	6.05	12.87	39.24	0.00	52.37	0.00	110.53
Alternative A Total	***23.37***	***51.28***	***39.24***	***44.58***	***210.03***	***0.00***	***368.50***
Alternative B							
Alternative B Total	***107.02***	***43.9***	***100.61***	***0.00***	***67.67***	***33.97***	***353.17***
Alternative C							
Segment C-1	83.11	12.59	0.00	44.58	70.42	0.00	210.70
Segment C-2	0.00	0.00	0.00	0.00	30.19	0.00	30.19
Segment C-3	2.56	12.86	40.71	0.00	64.46	0.00	120.59
Alternative C Total	***85.67***	***25.45***	***40.71***	***44.58***	***165.07***	***0.00***	***361.48***
Alternative E – Agency Preferred Alternative							
Segment C-1	83.11	12.59	0.00	44.58	70.42	0.00	210.70
East-West Interconnect	0.00	0.00	0.00	0.00	44.99	0.00	44.99
Segment E-3	2.56	12.86	40.71	0.00	44.87	0.00	101.00
Alternative E Total	***85.67***	***25.45***	***40.71***	***44.58***	***160.28***	***0.00***	***356.69***

*Buffer of 50 feet on each side of transmission line. Not all acres would be disturbed within the right-of-way, but the right-of-way is considered to be long-term encumbrance for the duration of the permit.

Table 2.10-4. Comparison of Alternatives by Total Long-Term Surface Disturbance and Land Ownership/Management

Alternative	Long-Term Disturbance* (Acres)						
	Private	SITLA	KFO	GSENM	DNF	BRCA	Total
Alternative A							
Segment A-1	5.31	5.01	0.00	6.74	17.72	0.00	34.78
Segment A-2	0.00	0.00	0.00	0.00	2.87	0.00	2.87
Segment A-3	2.67	1.68	5.23	0.00	5.88	0.00	15.47
Alternative A Total	***7.97***	***6.70***	***5.23***	***6.74***	***26.47***	***0.00***	***53.12***
Alternative B							
Alternative B Total (Bryce Substation option 1)	***19.36***	***5.74***	***13.12***	***0.00***	***6.59***	***1.04***	***45.85***
Alternative B Total (Bryce Substation option 2)	***21.30***	***5.74***	***13.12***	***0.00***	***4.52***	***1.04***	***45.62***
Alternative C							
Segment C-1	13.97	1.58	0.00	6.74	9.12	0.00	31.41
Segment C-2	0.00	0.00	0.00	0.00	3.92	0.00	3.92
Segment C-3	2.22	1.68	5.42	0.00	7.00	0.00	16.33
Alternative C Total	***16.19***	***3.26***	***5.42***	***6.74***	***20.04***	***0.00***	***51.66***
Alternative E – Agency Preferred Alternative							
Segment C-1	13.97	1.58	0.00	6.74	9.12	0.00	31.41
East-West Interconnect	0.00	0.00	0.00	0.00	5.85	0.00	5.85
Segment E-3	2.24	1.68	5.42	0.00	4.19	0.00	13.54
Alternative E Total	***16.21***	***3.26***	***5.42***	***6.74***	***19.16***	***0.00***	***50.80***

*Includes long-term disturbance associated with power poles, substations, substation access roads, existing access road upgrades, and a 10-foot-wide centerline access route.

Table 2.10-5. Comparison of Alternatives by Total Short-Term Surface Disturbance and Land Ownership/Management

Alternative	Short-Term Disturbance* (Acres)						
	Private	SITLA	KFO	GSENM	DNF	BRCA	Total
Alternative A							
Segment A-1	8.76	18.14	0.00	23.27	70.55	0.00	118.39
Segment A-2	0.00	0.00	0.00	0.00	14.21	0.00	14.21
Segment A-3	9.19	6.96	28.14	0.00	23.08	0.00	67.37
Alternative A Total	***17.94***	***25.10***	***28.14***	***23.27***	***107.84***	***0.00***	***202.29***
Alternative B							
Alternative B Total	***75.38***	***20.19***	***54.08***	***0.00***	***18.48***	***0.78***	***168.91***
Alternative C							
Segment C-1	68.72	7.23	0.00	23.27	48.30	0.00	147.52
Segment C-2	0.00	0.00	0.00	0.00	21.69	0.00	21.69
Segment C-3	1.74	6.95	29.34	0.00	36.19	0.00	45.06
Alternative C Total	***70.47***	***14.18***	***29.34***	***23.27***	***106.18***	***0.00***	***243.44***
Alternative E – Agency Preferred Alternative							
Segment C-1	68.72	7.23	0.00	23.27	48.30	0.00	147.52
East-West Interconnect	0.00	0.00	0.00	0.00	24.97	0.00	24.97
Segment E-3	1.74	6.95	30.32	0.00	22.54	0.00	61.55
Alternative E Total	***70.46***	***14.18***	***30.32***	***23.27***	***95.81***	***0.00***	***234.04***

*Includes short-term disturbance associated with pulling and splicing sites, lay-down areas, and power pole (H-structure) installation. Some overlap between disturbance areas exists because a single area could be used for multiple alternatives. *Limited access areas* were not analyzed for short-term disturbance associated with pole installation. Alternative B also includes short-term disturbance associated with removal of the existing 69 kV transmission line.

Table 2.10-6. Short-Term Disturbance Associated with Removal of Existing 69 kV Line (Parallel to Alternative B)

Alternative	Short-Term Disturbance* (Acres)						
	Private	SITLA	KFO	GSENM	DNF	BRCA	Total
Alternative A, C &E	27.44	3.94	8.36	0.00	9.89	0.00	49.63

*This short-term disturbance area includes lay-down yards and pulling and splicing sites needed for the existing 69 kV line removal. For analysis, short-term surface disturbance for line removal is assumed to include all of the short-term disturbance areas (i.e., lay-down areas, pulling/splicing sites) that are included under Alternative B. This effectively reduces the amount of disturbance shown for Alternative B as these areas are the same as those counted for the installation of the 138 kV line. In reality these areas needed for removal would be very similar to, but slightly offset from, the installation sites.

Additions made to Table 2.10-7 (below) including information relating to Alternative E, and other changes (detailed in Section 3, Errata, Page 46) are underlined.

Table 2.10-7. Summary of Environmental Effects of Proposed Action and Alternatives

Resource Topic		Alternative A: Proposed Action	Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2	Alternative C: Cedar Fork Southern Route	Alternative D: No Action	Alternative E: Preferred Alternative	69 kV Line Removal, Alternatives A, C & E
General Disturbance Acreage (acres)	**Route Length (miles)**	30.41	29.11	29.78	N/A	29.40	16.23
	***Limited Access* (miles)**	1.53	6.07	1.98	N/A	2.20	3.55
	Project Area	483.46	418.26	495.61	N/A	481.50	N/A
	Right-of-Way, 100' Wide	368.5 0	353.17	361.48	N/A	356.69	N/A
	Long-Term Disturbance	53.12	B-1=45.85 B-2=45.62	51.66	N/A	50.80	N/A
	Short-Term Disturbance	202.29	168.91	243.44	N/A	234.04	49.63
Paleontological Resources	PFYC Class	Project Area Disturbance Acreage by Alternative					
	1	22.07	57.03	22.07	Impacts would be similar to but less than construction impacts under Alternative B.	22.07	4.98
	2	182.42	189.48	219.46		215.43	32.02
	3	0.00	0.00	0.00		0.00	0.00
	4	164.28	122.93	119.65		61.97	12.62
	5	122.91	48.65	137.25		182.09	0.00
	Total 3-5	278.74	171.58	256.90		244.06	12.62
	Total All	483.23	418.09	498.43		481.56	49.63
	PFYC Class	Short- and Long-Term Disturbance Acreage by Alternative					
	1	7.24	29.24	6.47	Impacts would be similar to but less than construction impacts under Alternative B.	6.16	4.98
	2	99.44	116.83	134.54		130.75	32.03
	3	0.00	0.00	0.00		0.00	0.00

Resource Topic		Alternative A: Proposed Action		Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2		Alternative C: Cedar Fork Southern Route		Alternative D: No Action	Alternative E: Preferred Alternative		69 kV Line Removal, Alternatives A, C & E	
	4	82.56		48.52		76.43		Impacts would be similar to but less than construction impacts under Alternative B.	48.47		12.62	
	5	53.15		23.60		72.16			83.97		0.00	
	Total 3-5	135.70		72.13		148.59			132.44		12.62	
	Total All	242.39		218.20		289.60			267.44		49.63	
	General	Overall risk for all action alternatives was determined to be negligible with implementation of mitigation measures							Same as Alternatives A-C		Same as Alternatives A-C	
Soils	Indicator	Short-term	Long-term	Short-term	Long-term	Short-term	Long-term		Short-term	Long-term	Short-term	Long-term
	Disturbance (acres)	202.29	53.12	168.91	45.85/45.62	243.43	51.66	Impacts would be similar to but less than construction impacts under Alternative B.	234.04	50.80	49.00	49.00
	Displacement (acres)		16.29		18.27/18.14		16.08			18.60	N/A	N/A
	Compaction (acres)		5.06		7.50/7.37		5.06			5.06	N/A	N/A
	Ground cover/ Coarse Woody Debris (acres)	199.97	11.23	168.91	10.77	235.74	11.02		224.23	13.54	N/A	Minor Beneficial
	Highly Erodible Soils (acres)	53.37	12.28	17.36	7.87/7.10	53.33	11.29		59.15	13.38	N/A	N/A
	Biological Soil Crusts (Observation Points)	19 Points		2 Points		12 Points			13 Points		N/A	N/A
	Potential Erosion (lbs/acre/yr)	5.68		3.60		4.92			6.90		N/A	N/A
	General	Impacts to soils from all alternatives would be within the DNF and Region 4 USFS *Soil Standards and Guidelines*, which require impact of less than 15% for the total project area.							Same as Alternatives A-C		Same as Alternatives A-C	
Water Resources	Indicator	Short-term	Long-term	Short-term	Long-term	Short-term	Long-term		Short-term	Long-term	Short-term	Long-term
	Linear Feet of Streams	1,303		417		1,208		Impacts would be similar to but less than construction impacts under Alternative B.	1,196		Minor, adverse	Negligible to minor, beneficial

Resource Topic		Alternative A: Proposed Action		Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2		Alternative C: Cedar Fork Southern Route		Alternative D: No Action	Alternative E: Preferred Alternative		69 kV Line Removal, Alternatives A, C & E	
	Number of Stream Crossings	183		B-1=63 B-2=65		200		Impacts would be similar to but less than construction impacts under Alternative B.	193			
	Wetlands and Waters of the U.S. Disturbed (Acres)	0.00	0.022	0.00	0.009	0.00	0.025		0.00	0.025	Negligible to minor, beneficial	
	Floodplains Disturbances	Negligible		None		Negligible			Negligible		None	
	Highly Erodible Soils Disturbed (Acres)	4.51	3.03	0.92	1.09/1.90	6.85	2.81		8.22	3.60	Short-term, negligible	Long-term, minor beneficial
	Number of Springs in Proximity to Right-of-Way	1		0		1			1		0	
	Water Quality Impacts	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible		Negligible	Negligible	Short-term, minor adverse	Long-term, minor beneficial
	Number of Water Rights within a 1-mile of right-of-way	104		218		138			131		131	
	General	Potential impacts to water resources would be minor adverse level, short-term or long-term.							Same as Alternatives A-C		Same as Alternatives A-C	
Vegetation	Indicator	Short-term	Long-term	Short-term	Long-term	Short-term	Long-term		Short-term	Long-term	Short-term	
	Acres of disturbance: Grass	1.08	0.15	0.16	0.13	0.58	0.25	Impacts would be similar to but less than construction impacts under Alternative B.	0.17	0.06	0.00	
	Acres of disturbance: Mixed conifer	0.00	0.00	0.00	0.03	0.00	0.00		0.08	0.03	0.00	
	Acres of disturbance: Pinyon-juniper	30.07	6.05	29.64	7.71	29.96	5.30		29.40	5.75	4.69	
	Acres of disturbance: Ponderosa pine	49.77	8.59	22.61	2.94/3.42	58.10	9.79		50.94	8.66	13.57	
	Acres of disturbance: Rock	10.94	1.75	7.57	0.93	14.35	1.72		7.86	1.13	0.68	
	Acres of disturbance: Sage	134.66	30.29	94.30	29.41/27.70	145.52	30.75		137.05	32.35	26.34	
	Acres of disturbance: Other shrub	10.03	3.48	1.70	0.70	7.52	1.89		7.79	1.91	0.00	
	Acres of disturbance: Spruce fir	0.32	0.03	0.00	0.00	0.08	0.03		0.38	0.13	0.00	
	Acres of disturbance: Riparian	0.26	0.09	0.80	0.31/0.42	2.59	0.79		1.52	0.40	0.03	
	Acres of disturbance: Other	5.86	0.00	11.35	1.35/1.54	6.66	0.31		6.70	0.31	1.88	

Resource Topic		Alternative A: Proposed Action	Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2		Alternative C: Cedar Fork Southern Route		Alternative D: No Action	Alternative E: Preferred Alternative		69 kV Line Removal, Alternatives A, C & E
	Proximity to noxious weeds	Noxious and undesirable weed infestations are common throughout the area of analysis for all alternatives. It is assumed that the spread of weeds can and likely would occur. The magnitude of this spread would be directly related to the diligence with which mitigation measures and best management practices (BMPs) are employed by the construction crews and enforced by the managing agencies.					Impacts would be similar to but less than construction impacts under Alternative B.	Same as Action Alternatives		Same as Alternatives A-E
	General	Impacts to all cover types were determined to be negligible to minor relative to the overall abundance of each cover type in the surrounding area.						Same as Action Alternatives		Same as Alternatives A-E
Forest Products	Indicator									
	Public land no longer suitable for timber management (acres)	17.23		63.40		23.14	No impacts to forest products would be anticipated because vegetation within the right-of-way is currently maintained at 4 feet in height or less.	10.70		0.00
	Acres suitable for timber gained	7.31				7.31		7.31		7.31
	Board feet removed from public lands	~10,000 board feet		~14,000 board feet		~21,000 board feet		~8,800 board feet		0
	General	Impacts determined to be negligible for all action alternatives						Same as Alternatives A-C		Same as Alternatives A-C
Wildlife and Wildlife Habitat	Indicator	Short-term	Long-term	Short-term	Long-term	Short-term	Long-term		Short-term	Long-term	Short-term
	Acres habitat disturbance: Mammals & Reptiles	195.81	50.44	168.14	43.55	237.23	50.91	Impacts would be similar to but less than construction impacts under Alternative B.	234.04	50.80	
	Acres habitat disturbance: Mule deer & elk winter range	33.20	16.30	37.40	13.70	69.20	16.10		67.2	16.63	35.0
	Acres habitat disturbance: Mule deer & elk summer range	20.60	6.90	4.10	1.20	18.80	6.00		22.53	7.59	4.10

Resource Topic			Alternative A: Proposed Action		Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2		Alternative C: Cedar Fork Southern Route		Alternative D: No Action	Alternative E: Preferred Alternative		69 kV Line Removal, Alternatives A, C & E
		Mule deer habitat	181.57	48.68	149.21	41.26	216.23	48.88		117.57	39.89	44.63
		Rocky Mountain elk habitat	37.60	8.77	22.70	3.11	58.85	10.07		37.38	10.57	13.57
		Pronghorn habitat	3.60	0.50	9.80	7.30	3.60	0.50		3.60	0.50	5.00
		Mule deer fawning	40.90	10.30	17.10	9.80	37.20	9.80		40.48	13.13	14.3
		Elk calving	9.60	2.30	3.20	0.1	11.90	3.80		6.81	2.81	3.20
		Mig birds - sagebrush	108.32	30.29	94.30	29.44	127.03	30.75		137.05	32.35	26.34
		Mig birds – ponderosa pine	36.20	8.59	22.61	2.94	53.19	9.79		50.94	8.66	13.57
		Mig birds-Pinyon/juniper	25.38	6.05	29.64	7.71	25.27	5.30		29.40	5.75	4.69
		Mig birds-cliff/canyon	5.10	0.85	0.68	0.00	7.50	0.76	Impacts would be similar to but less than construction impacts under Alternative B.	2.26	0.35	0.70
		Mig birds-other scrub/shrub	10.03	3.48	1.70	0.70	7.52	1.89		7.79	1.91	0.00
		Mig birds-agriculture	0.00	0.00	1.10 /1.30	0.00	0.20	0.00		0.20	0.00	0.00
		Mig birds - riparian	0.23	0.09	0.80	0.31	2.56	0.87		1.52	0.40	0.03
		Mig birds-grassland	1.08	0.15	0.16	0.13	0.58	0.25		0.17	0.06	0.00
		Aquatic habitat-intermittent streams-linear ft	2,123	1,535	704 /764	101	1,522	1,511		1,730.95	1,343.05	

Resource Topic		Alternative A: Proposed Action	Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2	Alternative C: Cedar Fork Southern Route	Alternative D: No Action	Alternative E: Preferred Alternative	69 kV Line Removal, Alternatives A, C & E
	Fragmentation	Mammals and reptiles: Likely. Populations of small mammals or reptiles could be fragmented by the transmission line due to construction activities if heavy machinery directly removes a portion of the population and isolates the remaining cohort(s). Big game: Unlikely Migratory birds: Possible. Secondary fragmentation could occur via noxious weed infestation. Aquatic species and habitat: Possible. Fragmentation of aquatic habitat may occur after ephemeral drainages are crossed, if sedimentation or alteration of the drainage occurs (due to alterations made during the dry crossing) when the reach is flowing at a later time.				Same as Alternatives A-C	N/A
	Noise	Mammals and reptiles: Disturbance possible. Larger animals such as mammal predators and big game could move away from loud construction noises and they would be temporarily displaced from the area for the duration of construction. Smaller mammals and reptiles may not easily escape construction noises and could be impacted more adversely if individuals cannot find refuge underground and the hearing in some individuals is damaged. Big game: Disturbance possible. Temporary displacement during construction and emergency maintenance. Migratory birds: Disturbance possible. Disturbance during construction and emergency maintenance if activities occurred during nesting. Pre-construction surveys would be required during the nesting season to document the presence or absence of nesting migratory birds, including raptors. If songbird nests are found, a general buffer may be implemented (May 15 – July 15) with exact dates determined by the USFS as the lead agency. For raptors, species-specific buffers following agency guidelines would be implemented if nests are found.		Impacts would be similar to but less than construction impacts under Alternative B.	Same as Alternatives A-C	Short-term disturbance during removal. Long-term beneficial impacts due to reduced human presence and associated noise from maintenance of the line.
	Invasive species and noxious weeds	Migratory birds: Possible. Invasive plant infestations, particularly brome grasses (*Bromus* spp.) into migratory bird habitats directly remove the amount of nesting substrate for ground-nesting migratory bird species. Resource Protection Measures, if completely effective, would eliminate the risk of invasive plant increases. Aquatic species and habitat: Possible. An increase in invasive plant species would not perceptibly affect aquatic habitat because the Sevier River is wide enough that vegetation composition has a minimal effect on the river.				Same as Alternatives A-C	Same as Alternatives A-C
	reproduction: Big Game	FAWNING AND CALVING - ALL ALIGNMENTS. Fawning areas occur in western half of alignment and in Hatch Valley. Calving occurs mainly throughout the middle portions of each alignment within ponderosa pine habitat.				Same as Alternatives A-C	FAWNING AND CALVING: Short-term disturbance during removal. Long-term beneficial impacts due to reduced human presence and associated noise from maintenance of the line.
	reproduction: Migratory Birds	NESTS – ALL ALIGNMENTS. Refer to Noise (above). Surveys would document the presence of migratory birds prior to construction activities and buffers may be implemented. No surveys would be conducted for emergency maintenance.				Same as Alternatives A-C	

Resource Topic			Alternative A: Proposed Action	Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2		Alternative C: Cedar Fork Southern Route		Alternative D: No Action	Alternative E: Preferred Alternative		69 kV Line Removal, Alternatives A, C & E
	Number & type of crossings		Aquatic species and habitat: Impacts possible/unlikely. Crossings would occur when aquatic species are not present and indirect impacts during flow periods would be minimized by the use of stabilizing materials during the crossing. MIS Trout (Dixie): No impacts. Culverts would not be used under any alternative and low-water crossings would be preferred. Perennial streams where trout may occur would not be crossed.					Impacts would be similar to but less than construction impacts under Alternative B.	Same as Alternatives A-C		Same as Alternatives A-C
	Compliance	Dixie MIS standards & guidelines	In compliance						In compliance		In compliance
		NPS guidelines & mitigation	N/A	In compliance		N/A			N/A		In compliance
	General		Any Action Alternative would result in minor or moderate impacts on wildlife and aquatic species. Major impacts may occur in wildlife habitats if brome grass infestations are spread further as a result of any Action Alternative (A, B, or C).						Same as Alternatives A-C		Same as Alternatives A-C
Special Status Species	Indicator		Short-term	Long-term	Short-term	Long-term	Short-term	Long-term		Short-term	Long-term	Short-term
	Acres habitat disturbance	Mexican spotted owl Critical Hab	14.7	7.8	0.00	0.00	14.7	7.80		14.7	7.80	0.00
		Utah prairie dog colonies	2.90	1.50	14.30	3.30	13.40	1.10		13.41	0.74	14.3
		Greater sage-grouse Brooding	47.10	20.80	47.80	21.30	84.00	21.70		80.37	21.32	37.8
		Greater Sage-grouse Use Area	25.90	10.60	14.50	11.20	14.50	4.80		14.47	4.80	9.5

Resource Topic			Alternative A: Proposed Action		Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2		Alternative C: Cedar Fork Southern Route		Alternative D: No Action	Alternative E: Preferred Alternative		69 kV Line Removal, Alternatives A, C & E
		Burrowing owl[1]	108.32	30.29	94.30	29.44	127.03	30.75	Impacts would be similar to but less than construction impacts under Alternative B.	137.05	32.35	26.30
		Northern goshawk[2]	36.20	8.59	22.61	2.94	53.19	9.79		50.94	8.66	13.57
		Ferruginous hawk – Pinyon/juniper	23.38	6.05	29.64	7.71	25.27	5.30		29.40	5.75	4.69
		Peregrine falcon[3]	5.10	0.85	0.68	0.00	7.50	0.76		2.26	0.35	0.70
		Sensitive plants[4]	14.10	5.00	3.2	1.0	13.50	3.07		12.28	3.64	3.2
	Fragmentation	Utah prairie dog	Transmission line may reduce the size of potential territories.							Same as Alternatives A-C		N/A
			Short-term, minor		Short-term, minor to moderate		Short-term, minor to moderate			Short-term, minor		
		Pygmy rabbit	Impacts likely long-term, moderate							Same as Alternatives A-C		N/A
		Greater sage-grouse	The transmission line would isolate portions of use areas and could disrupt seasonal movements or prevent sage-grouse from using all parts of their habitat if transmission lines were avoided.							Same as Alternatives A-C		N/A

[1] Sagebrush habitat common to Utah prairie dog, burrowing owl, pygmy rabbit, Greater sage grouse, and Ferruginous hawk

[2] Ponderosa pine habitat common to Northern goshawk, flammulated owl, and Lewis's woodpecker

[3] Cliff/canyon habitat common to Peregrine falcon and sensitive bats

[4] Mapped occurrences and suitable habitat (DNF only)

Resource Topic			Alternative A: Proposed Action	Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2	Alternative C: Cedar Fork Southern Route	Alternative D: No Action	Alternative E: Preferred Alternative	69 kV Line Removal, Alternatives A, C & E
			Likely. A large amount of use areas could be fragmented. May be long-term and major	Same as Alternative A	Less Likely. A SMALLER amount of use area could be fragmented, due to lower habitat quality and less habitat.	Impacts would be similar to but less than construction impacts under Alternative B.	Same as Alternative C.	
	Noise	Mexican spotted owl	Disturbance possible. Temporary disturbance to individuals roosting within 0.5 mile of activities, during construction or emergency maintenance. Pre-construction surveys in suitable habitats would document the presence of nesting spotted owls in the area.				Same as Alternatives A-C	Short-term disturbance during removal. Long-term beneficial impacts due to reduced human presence and associated noise from maintenance of the line.
		Utah prairie dog	Individuals may be temporarily displaced. Some individuals may enter hibernation early (not expected).				Same as Alternatives A-C	
			Likely	Likely	Less likely due to fewer colony areas.		Less likely than Alt C.	
		Greater sage-grouse	Temporary displacement during construction or emergency maintenance. Adverse reproductive impacts if activities occurred May 1 – July 15.				Same as Alternatives A-C	
			Likely. Displacement from leks or breeding habitat.	Likely. Displacement from leks or breeding habitat.	Less likely. Displacement from leks or breeding habitat less likely due to lower habitat quality and less habitat.		Same as Alternative C.	
		Burrowing owl	Disturbance possible. Temporary disturbance to individuals roosting within 0.25 mile of activities, during construction or emergency maintenance.				Same as Alternatives A-C	
		Northern goshawk	Disturbance possible. Temporary disturbance to individuals roosting within 0.5 mile of activities, during construction or emergency maintenance.				Same as Alternatives A-C	
		Bald eagle	Disturbance possible. Temporary disturbance to individuals roosting in the vicinity of activities. Communal roosts occur along the Sevier River.				Same as Alternatives A-C	
	Increase in invasive plants	Utah prairie dog	Possible. Further infestations of thistle, hoary cress, and cheatgrass would degrade habitat by replacing native grasses and forbs with plants that do not provide required nutrients and habitat structure, i.e., young shoots and leaves/flowers of forb species. Resource Protection Measures, if completely effective, would eliminate the risk of invasive plant increases.				Same as Alternatives A-C	Same as Alternatives A-C
		Greater sage-grouse	Possible. Further infestations of thistle and cheatgrass would degrade sage-grouse habitat because invasive species do not provide the same level of nutritious forage as sagebrush plants. Cheatgrass could replace sagebrush over time through fire, which would rapidly reduce the amount of suitable habitat. Resource Protection Measures, if completely effective, would eliminate the risk of invasive plant increases.				Same as Alternatives A-C	Same as Alternatives A-C

Resource Topic			Alternative A: Proposed Action		Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2		Alternative C: Cedar Fork Southern Route		Alternative D: No Action	Alternative E: Preferred Alternative		69 kV Line Removal, Alternatives A, C & E
		Sensitive plants (DNF Only)	Possible. Further infestations of thistle and cheatgrass would diminish the likelihood that sensitive plants will establish in the area, and that established populations of sensitive plants will expand. Invasive species take up space, water, and nutrients from sensitive plants species and generally out-compete them. Resource Protection Measures, if completely effective, would eliminate the risk of invasive plant increases.						Same as Alternatives A-C		Same as Alternatives A-C
	Distance to sage-grouse leks within 1 mile of centerline	John L. Swale Lek	0.5 miles		N/A		N/A		Impacts would be similar to but less than construction impacts under Alternative B.	N/A		N/A
		Lek 1	NA		1 mile		0.45 mile			0.45 mile		1 mile
		Lek 2	0.25 mile		0.20 mile		N/A			N/A		0.20 mile
	Compliance with NPS guidelines and mitigation		N/A		In compliance		N/A			N/A		In compliance
Range Resources	Indicator		Short-term	Long-term	Short-term	Long-term	Short-term	Long-term		Short-term	Long-term	
	Number of Allotments Impacted		9		6		6		Impacts would be similar to but less than construction impacts under Alternative B.	6		
	Grazing allotment acres lost (acres/percent)		142.13 0.20%	33.24 0.05%	109.13 0.13%	22.71 0.03%	155.34 0.19%	27.36 0.03%		148.047 0.18%	23.61 0.03%	DNF: 0.5%, BLM: 0.1%
	AUMs lost – long- and short-term		<12		<6.7		<6.6			<6.6		<2 AUM short-term loss; long-term negligible beneficial impacts from restoration
	Effects to range improvements		1 water supply which can be avoided; 12 fences which would be repaired		1water supply which can be avoided; 1 fence which would be repaired		1 water supply which can be avoided; 11 fences which would be repaired			1 water supply which can be avoided; 11 fences which would be repaired		1 water supply, which can be avoided

Resource Topic		Alternative A: Proposed Action		Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2		Alternative C: Cedar Fork Southern Route		Alternative D: No Action	Alternative E: Preferred Alternative		69 kV Line Removal, Alternatives A, C & E
	General	Impacts determined to be negligible for all action alternatives							Same as Alternatives A-C		No adverse long-term impacts
Land Use	Indicator	Short-term	Long-term	Short-term	Long-term	Short-term	Long-term		Short-term	Long-term	
	Displaced existing or approved land uses (acres)	202.29	53.12	168.91	45.62/45.85	243.44	51.66	No impacts on existing land uses from continued operation or anticipated major maintenance activities.	224.23	49.43	49.64 short-term
	Land use relative to management goals	Consistent with mitigation for prairie dogs and FAA regs; and creates 100-foot-wide Passage Zone crossing GSENM Primitive Zone (reducing Primitive Zone by 44.58 ac; 6.74 ac long-term disturbance; 23.27 ac temporary); existing 230 kV line would continue to not conform to GSENM MP management objectives.		Consistent except through East Bryce non-WSA lands and BRCA (4.44 ac long-term; 0.78 ac temporary)		Same as Alternative A, but outside FAA-regulated area; creates 300-foot-wide Passage Zone crossing GSENM Primitive Zone (reducing Primitive Zone by 133.82 ac); both the proposed 138 kV and existing 230 kV transmission lines would conform to the GSENM MP management objectives.			Same as Alternative C		Beneficial in the long-term
	General	Impacts determined to be consistent with management plans except as noted above, and otherwise negligible where adverse (i.e. private agricultural land where inconsistent with management policies) with mitigation							Same as Alternatives A-C		Same as Alternatives A-C
Distinctive Land Areas	Indicator										
	Acres of roadless/natural characteristics lost (DNF Only)	597.81		0.00		395.21		Major maintenance would create a short-term minor reduction in opportunities for solitude in lands with	604.34		Same as Alternative A

Resource Topic		Alternative A: Proposed Action		Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2		Alternative C: Cedar Fork Southern Route		Alternative D: No Action	Alternative E: Preferred Alternative		69 kV Line Removal, Alternatives A, C & E
	Lost opportunity for solitude & primitive recreation experience	Impacts to Table Cliffs-Henderson Canyon IRA & unroaded area, Shakespear Point IRA & unroaded area, and Red Canyon South unroaded area		Impacts to East of Bryce natural area		Impacts to Table Cliffs-Henderson Canyon IRA & unroaded area and Shakespear Point IRA & unroaded area		wilderness values and characteristics and conflict with primitive non-motorized and self-directed recreation uses of the special designation areas adjacent or in proximity to the right-of-way.	<u>Same areas impacted as Alternative A, but different acreages.</u>		N/A
Recreation	Indicator	Short-term	Long-term	Short-term	Long-term	Short-term	Long-term		Short-term	Long-term	
	Acres of ROS settings where project would conflict with characteristics (DNF only; does not include impacts to BRCA under Alt. B.)	174.9	37.06	85.21/85.13	20.41/18.42	166.51	32.15	Impacts would be similar to but less than construction impacts under Alternative B.	<u>146.29</u>	<u>29.92</u>	Long-term impacts where adjacent to 138 kV line would be negligible; where two right-of-ways are separate, rehabilitation of the 69 kV right-of-way would have a negligible to minor impact in the immediate area. Temporary impacts similar to Alternative B
	Change in Pattern of use and quality of experience at dispersed sites (SPNM, Primitive Zone, BRCA)	SPNM minor GSENM negligible	SPNM minor GSENM Primitive Zone Minor	SPNM moderate BRCA moderate	SPNM moderate BRCA moderate	SPNM minor GSENM Negligible	SPNM minor GSENM Primitive Zone Minor		<u>SPNM minor</u> <u>GSENM Negligible</u>	<u>SPNM minor</u> <u>GSENM Primitive Zone Minor</u>	Long-term impacts where adjacent to 138 kV line would be negligible; where two right-of-ways are separate, rehabilitation of the 69 kV right-of-way would have a negligible to minor impact in the immediate area. Temporary impacts similar to Alternative B
	Change in Pattern of use and quality of experience at developed sites	SPM & RN negligible BLM-KFO negligible	SPM & RN negligible BLM-KFO negligible	SPM minor RN moderate BLM-KFO negligible	SPM minor RN moderate BLM-KFO negligible	SPM & RN negligible BLM-KFO negligible	SPM & RN negligible BLM-KFO negligible		<u>SPM & RN negligible</u> <u>BLM-KFO negligible</u>	<u>SPM & RN negligible</u> <u>BLM-KFO negligible</u>	Long-term impacts where adjacent to 138 kV line would be negligible; where two right-of-ways are separate, rehabilitation of the 69 kV right-of-way would have a negligible to minor impact in the immediate area. Temporary impacts similar to Alternative B

Resource Topic		Alternative A: Proposed Action	Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2	Alternative C: Cedar Fork Southern Route	Alternative D: No Action	Alternative E: Preferred Alternative	69 kV Line Removal, Alternatives A, C & E
	General	DNF: Impacts would range from negligible to minor except for impacts to areas designated SPNM under Alternative B would have moderate adverse impacts. BLM-GSENM: Minor adverse impacts under Alternatives A and C; proposed 138 kV line would conform to objectives under Alternative A with management plan amendment; both the proposed 138 kV and existing 230 kV lines would conform to objectives under Alternative C. BLM-KFO: Negligible impacts. BRCA: Moderate adverse impacts under Alternative B.			Impacts would be similar to but less than construction impacts under Alternative B.	Same as Alternatives A-C	Same as Alternatives A-C
Visual Resources	Viewpoint 1	Short-term adverse impacts from construction; long-term, adverse impacts that would likely exceed VRM Class III objectives at and near the U.S. 89 Byway crossing.	Minor, long-term, adverse impacts. Minor, indirect, beneficial long-term impacts from existing line removal.	Same as Alternative A	No additional impacts to visual resources, and the viewscape would remain subject to existing trends and conditions.	Same as Alternative A	Minor, short-term, adverse impacts from removal of existing line.because of the long viewing distance.
	Viewpoint 2	Minor, adverse short-term and long-term impacts that would meet VRM Class III objectives.	Short-term and long-term, moderately adverse impacts, but consistent with VRM objectives because of existing disturbances in the area.	Same as Alternative A		Same as Alternative A	Minor, beneficial impacts from removal of existing line.
	Viewpoint 3	No impacts because of viewing distance.	Short-term and long-term, moderate impacts, but would meet VRM Class III objectives.	Same as Alternative A		Same as Alternative A	Short-term, minor adverse impacts from existing line removal; long-term, minor beneficial impact to scenic quality.
	Viewpoint 4	No impacts from line construction west of Red Canyon.	Moderate, adverse, long-term impacts from line construction along existing route.	Same as Alternative A		Same as Alternative A	Minor, beneficial long-term impacts from existing line removal.
	Viewpoint 5	No impacts to scenic quality within Red Canyon.	Short-term and long-term, adverse, substantial impacts from line construction, which would likely exceed High SIO level.	Same as Alternative A		Same as Alternative A	Long-term, beneficial impacts from existing line removal.

Resource Topic		Alternative A: Proposed Action	Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2	Alternative C: Cedar Fork Southern Route	Alternative D: No Action	Alternative E: Preferred Alternative	69 kV Line Removal, Alternatives A, C & E
	Viewpoint 6	Short-term and long-term, adverse impacts to High SIO along SR 12. This would likely exceed USFS management objectives.	Minor to moderate, adverse impacts on scenic quality.	Same as Alternative B	No additional impacts to visual resources, and the viewscape would remain subject to existing trends and conditions.	Same as Alternative B	Beneficial, minor impacts from existing line removal.
	Viewpoint 7	No impacts.	Moderate short-term and long-term, adverse impacts from line construction.	Short-term and long-term, moderate, adverse impacts from construction in High SIO area along scenic backway.	No additional impacts to visual resources, and the viewscape would remain subject to existing trends and conditions.	Same as Alternative C	Long-term, minor, beneficial impacts from existing line removal.
	Viewpoint 8	Moderate, adverse, long-term scenic quality impacts. Minor, adverse long-term impacts to night sky from FAA safety devices.	No impacts	Same as Alternative A		Same as Alternative A	Minor, beneficial long-term, indirect impacts from existing line removal.
	Viewpoint 9	Minor, adverse long-term impacts.	No impacts	Moderately adverse impacts, but consistent with existing level of scenic quality.		Same as Alternative C	Minor, beneficial long-term, indirect impacts from existing line removal.
	Viewpoint 10	Minor, long-term, adverse impacts.	No impacts	Moderate, adverse short-term and long-term impacts from line construction.		Same as Alternative C	Minor, long-term, beneficial indirect impacts from existing line removal.
	Viewpoint 11	No impacts. Long-term, minor, adverse impacts from maintained existing line.	Moderate, adverse short-term and long-term impacts.	Same as Alternative A		Same as Alternative A	No effect

Resource Topic		Alternative A: Proposed Action	Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2	Alternative C: Cedar Fork Southern Route	Alternative D: No Action	Alternative E: Preferred Alternative	69 kV Line Removal, Alternatives A, C & E
	Viewpoint 12	No impacts to scenic quality from Park overlook.	Minor, adverse impacts on scenic quality due to distance from viewpoint.	Same as Alternative A		Same as Alternative A	Minor, long-term, beneficial indirect impacts from existing line removal.
	Viewpoint 13	No impacts along Mossy Cave Trail.	Short-term, adverse impacts from line construction and removal across trail. No impacts in the long-term.	Same as Alternative A		Same as Alternative A	Moderate, long-term, beneficial impacts from existing line removal.
	Viewpoint 14	Minor, adverse long-term impacts on scenic quality. Moderate, adverse, impacts from maintenance of existing line.	Long-term, moderate, adverse impacts from increased visual contrasts within the viewscape.	Same as Alternative A		Same as Alternative A	No effect
	Viewpoint 15	Minor, long-term, adverse impacts.	No impacts	Same as Alternative A	No additional impacts to visual resources, and the viewscape would remain subject to existing trends and conditions.	Same as Alternative A	No effect
	GSENM Plan Amendment	Would amend GSENM Management Plan to designating a 100-foot-wide Passage Zone corridor through a designated Primitive Zone, and to change the existing VRM Class designation from Class II to Class III within the Passage Zone.	N/A	Would amend GSENM Management Plan to designating a 300-foot-wide Passage Zone corridor through a designated Primitive Zone, and to change the existing VRM Class designation from Class II to Class III within the Passage Zone.		Would amend GSENM Management Plan to designating a 300-foot-wide Passage Zone corridor through a designated Primitive Zone, and to change the existing VRM Class designation from Class II to Class III within the Passage Zone.	N/A

Resource Topic		Alternative A: Proposed Action	Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2	Alternative C: Cedar Fork Southern Route	Alternative D: No Action	Alternative E: Preferred Alternative	69 kV Line Removal, Alternatives A, C & E
	General	Clearing of right-of-way in forested areas would leave noticeable linear element in landscape. This would be somewhat mitigated by selected clearing of vegetation at periphery of right-of-way to mimic natural vegetative patterns. Two-track access route would be noticeable outside of limited access areas along centerline of route. Consistency with agency visual resource management guidance is assumed, unless otherwise noted.				Same as Alternatives A-C	Removal of a portion of the existing 69 kV line would eliminate the visual intrusion of the line infrastructure. The cleared right-of-way would continue to be visible for many years, however after it fully revegetates there would be a long-term beneficial impact on visual resources.
Cultural Resources		The Proposed Action and all alternatives including the No Action have been evaluated and a concurrence of No Adverse Effect was determined by Utah SHPO and the federal agencies. Mitigation measures have been determined to avoid all Historic Properties.					
Socio-economics & Environmental Justice	Indicator						
	Estimated temporary & long-term increases in local employment & wages	46 new temporary jobs (23 local) (1.8% increase)	Same as Alternative A	Same as Alternative A	Total cost for the major rehabilitation is estimated to be between 1.4 and 2.1 million dollars. Even with major maintenance, the availability of new power hook-ups to the Project Area would continue to be limited by existing transmission capacity.	Same as Alternative A	None. All work performed by existing staff over a three year period
	Estimated outside workers and effect on local economy & services	22 new temporary workers from outside the local area (population increase of 0.45 % relative to 2007) If workers bring families, the population would increase by 1.35 %) Total estimated economic activity generated is $29,352,400, of which $22 million is direct project cost	Same workers and population increase as Alternative A, but over a longer time period. Total estimated economic activity generated is $48,031,200 of which $36 million is direct project costs.	Same workers and population increase as Alternative A. Total estimated economic activity generated is $26,684,000 of which $20 million is direct project costs.		Same workers and population increase as Alternative A. Total estimated economic activity generated is $26,430,332 of which $20 million is direct project costs.	None
	Projected impacts to housing	Negligible	Negligible	Negligible		Negligible	None

Resource Topic			Alternative A: Proposed Action	Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2	Alternative C: Cedar Fork Southern Route	Alternative D: No Action	Alternative E: Preferred Alternative	69 kV Line Removal, Alternatives A, C & E
	Impacts on local infrastructure & community services, incl schools		Negligible due to low number of "new" people, dispersed nature of the project, and existing capacity in schools, etc	Same as Alternative A	Same as Alternative A		Same Alternative A	None
	Changes in demographics		None to negligible	None to negligible	None to negligible		None to negligible	None
	Effects on taxes – property, sales & use		Garkane would purchase approximately $7 million worth of materials on which sales or use tax would be paid. A percentage of this tax would go to county and local governments.	Same as Alternative A	Same as Alternative A		Same As Alternative A	None
	Effects on rate payers		Would be financed at the prevailing rate at the time of the loan. Cost will be added to rate payers bills	Same as Alternative A	Same as Alternative A		Same as Alternative A	None
	Additional capacity in terms of additional households, businesses, and service reliability		Increase capacity from 3500 meters/customers to 13,000	Same as Alternative A	Same as Alternative A		Same as Alternative A	N/A
	Estimate on county property valuations		Negligible, in part because very little of the land is private	Same as Alternative A	Same as Alternative A		Same as Alternative A	N/A
	Environmental Justice		No minority or poor populations identified, therefore no economic justice issues. Benefits to economy would benefit poor and minorities as well.				Same as Alternatives A-C	Same as Alternatives A-C
	General		Overall economic impacts beneficial.				Same as Alternatives A-C	
Transportation	Indicator							
	Percent increase AADT	US 89	1.7	2.2	1.7	Impacts would be similar to but less than construction impacts under Alternative B.	Same as Alternative C	No additional increase.
		SR-12 (US 89 to SR-63)	1.5	1.9	1.5		Same as Alternatives A & C	
		SR-12 (SR-63 to Tropic)	2.0	2.6	2.0		Same as Alternatives A & C	

Resource Topic			Alternative A: Proposed Action	Alternative B: Parallel Existing 69 kV Route (including Removal of 69 kV Line) Option 1/2	Alternative C: Cedar Fork Southern Route	Alternative D: No Action	Alternative E: Preferred Alternative	69 kV Line Removal, Alternatives A, C & E
	Number line crossings	US 89	1	1	1		Same as Alternatives A & C	1
		SR-12 (US 89 to SR-63)	1	0	0		Same as Alternative C	0
		SR-12 (SR-63 to Tropic)	0	1	1	Impacts would be similar to but less than construction impacts under Alternative B.	Same as Alternative C	1
		SR-63	0	1	1		Same as Alternative C	1
		SR-22	1	0	0		Same as Alternative C	0
	Miles new access route		27.9	22.75	27.8		33.02	N/A
	Miles route widening		7.8	0.0	7.8		Same as Alternatives A & C	0.0

3. ERRATA

The following are text corrections for the Tropic to Hatch 138 kV Transmission Line DEIS. These changes are based on the comments, agency responses and text revisions contained in Appendix 1, or are additions being made to expand upon information contained in the DEIS.

Executive Summary

Page ES-2:

The first paragraph under Action Alternatives should read:

In addition to the Proposed Action, this Environmental Impact Statement provides analysis on two Action Alternatives. These are Alternative B (the Parallel 69 kV Line Route Alternative), which would roughly correspond to the existing 69 kV transmission line right-of-way; and Alternative C (the Cedar Fork Southern Route Alternative). 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 long stretch (133.81 acres) of the Primitive Zone to Passage Zone to accommodate both the proposed right-of-way 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 Visual Resource Management Class designation from Class II to Class III. Two interconnect options are presented, either of which would essentially allow the eastern segments of Alternative A to be coupled with the western segments of Alternative C, and vice versa. Under all action alternatives the proposed 138 kV transmission line must be completed and energized prior to removal of the existing 69 kV transmission line and rehabilitation of its right-of-way. While the Alternative B route would parallel the existing 69 kV transmission line right-of-way, there must be separation between the two in order to safely build and energize the new line prior to removal of the existing line. Amendment of the GSENM Management Plan would not be required under Alternative B.

Chapter 1

Page 1-2:

The text under the heading **1.3. Need for Proposed Action** should read:

Growth in Garfield and Kane counties has resulted in a 66 percent increase in the electrical demand during the 5 years prior to 2008. Recent analysis of electrical use within Garkane's system indicates that while development of the private lands within Garkane's service area has slowed over the last two years with the downturn in the economy, the demand for electrical power has continued to grow. Garkane's base and peak loads continue to grow at approximately 5 percent annually, with the system experiencing an all time peak load of near 40 megawatts in December 2009. In 2014 the peak load is projected to be 45 megawatts. (Garkane 2010)

The existing 69 kV transmission line is the bottleneck in Garkane's transmission system. Currently, a 138 kV transmission line supplies electricity from the Glen Canyon Dam (near Page, Arizona) to 1 mile east of the Tropic Substation; however, only a 69 kV transmission line provides connection between 1 mile east of the Tropic Substation and the Hatch Substation. The 69 kV transmission line is Garkane's main electrical supply to the area west of Tropic. The existing 69 kV transmission line cannot be modified to carry higher voltages due to physical limitations of the pole structures.

Peak demands exceed the capacity of the existing 69 kV transmission line. Garkane has found the existing system insufficient to meet electrical demand without the operation of temporary diesel generators. The results of modeling show that under the peak of December 2009 the communities of Bryce, Hatch, Spry, Long Valley and Cedar Mountain experienced and will continue to experience

insufficient electrical capacity and voltage to meet industry power quality requirements, even with 5 megawatts of diesel generators online (Garkane 2010).

This has caused an overloading of the 69 kV transmission line and a decrease in the reliability of the electrical system, resulting in black outs, brown outs, and reduced levels of service. Poor power quality causes customers' electrical equipment to fail and makes restoring power after an outage more time consuming and difficult. When these conditions exist federal regulations require utilities to implement load shedding (rolling blackouts) procedures, which cut power to non-essential uses in order to restore power quality (Garkane 2010).

Garkane's existing electrical delivery system to the Hatch area is insufficient to effectively meet the area's current and future electrical demand. Modeling indicates that replacement of the existing 69 kV transmission line with a 138 kV transmission line Garkane's system could sustain loads of 60 megawatts while maintaining sufficient power quality throughout the system.

Page 1-10:

Text has been added to **Section 1.6.2.2. Grand Staircase-Escalante National Monument**, for clarification. The first full sentence on this page is replaced by the following text.

A major management emphasis of the approved GSENM Management Plan calls for the management of uses to protect and prevent damage to monument resources (BLM 2000). This EIS includes the analysis needed to address the "objects" of the GSENM including but not limited to archeology, history, paleontology, air, water; biological resources, including special status species; soils and biological soil crusts; and noxious weed control.

Chapter 2

Page 2-5:

The first paragraph should read:

Upon completion of the proposed 138 kV line, 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 right-of-way (including existing centerline access) would be rehabilitated.

The first paragraph under heading **2.2.3. Alternative B: Parallel Existing 69 kV Route** should read:

The Alternative B Route would generally parallel the existing 69 kV line right-of-way, but must be separated from the existing 69 kV line right-of-way for constructability and safety reason, in order to safely build and energize the line prior to removal of the existing line. The Alternative B 100-foot-wide right-of-way would extend 29.11 miles (**Figure 2.2-1**). 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 right-of-way for approximately 1.5 miles) to a point near the current Bryce Canyon Substation near Bryce Canyon City. 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 Bryce Canyon City, west across SR 63 and then parallel Garkane's existing 69 kV line right-of-way predominately across private and SITLA lands. The alternative route would parallel the existing right-of-way just to the south across the plateau in a northwest direction to Red Canyon, where it would generally follow the existing right-of-way 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 second paragraph under the same heading should read:

Upon completion of the proposed 138 kV line, 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 right-of-way (including existing centerline access) would be rehabilitated.

Page 2-6:

The first paragraph should read:

Upon completion of the proposed 138 kV line, 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 right-of-way (including existing centerline access) would be rehabilitated.

Page 2-22:

2.3.6.3 Wildlife and Sensitive Species

Add bullet under heading:

No construction activity is recommended between 8 pm and 9 am within 2 miles of active sage-grouse leks between February 1 and June 15 (UDWR 2010).

Page 2-24:

The first bullet after the heading **2.3.6.7. Water** should read:

Water needed during construction would be limited to that needed for dust control (See Appendix D, Dust Management Plan).

Appendix D, Dust Management Plan should be inserted after Appendix C, Mailing List in the DEIS.

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Appendix D: Fugitive Dust Management Plan

A control strategy or strategies for fugitive dust are listed for each activity proposed under the Action Alternatives described in the Environmental Impact Statement. The strategies are listed in a staged approach, meaning that if the first approach of control, Stage 1, is not satisfactory, then the next approach of control, Stage 2 will be attempted.

ACTIVITY	ACTIVITY DETAILS	CONTROL STRATEGIES	
Material Storage	Storage of materials required for road widening.	Stage 1:	Inherent moisture with water sprays only on an as-needed basis.
		Stage 2:	Increase use of water sprays until fugitive dust is controlled.
Material Handling, Transfer, Hauling, Loading or Dumping	Placing fill material along roadside for widening.	Stage 1:	Inherent moisture with water sprays only on an as-needed basis.
		Stage 2:	Increase use of water sprays until fugitive dust is controlled.
Haul Roads, Roadways, or Yard Areas	Existing FS roads, centerline access; pulling, splicing and laydown yards	Stage 1:	Water sprays only on as-needed basis.
		Stage 2:	Increase use of water sprays until fugitive dust is controlled.
Clearing, Leveling	Pulling, splicing, laydown yards; area at pole locations	Stage 1:	Inherent moisture with water sprays only on an as-needed basis.
		Stage 2:	Increase use of water sprays until fugitive dust is controlled.
Earth Moving, Excavation	Foundation construction in certain locations	Stage 1:	Inherent moisture with water sprays only on an as-needed basis.
		Stage 2:	Increase use of water sprays until fugitive dust is controlled.
Construction, Demolition	Constructing and erecting new pole structures; removal of existing pole structures	Stage 1:	Water sprays only on an as-needed basis.
		Stage 2:	Increase use of water sprays until fugitive dust is controlled.

Page 2-30:

First paragraph under heading **2.5.1 Project Elements** should read:

Figure 2.5-1 depicts the Parallel Existing 69 kV Route Alternative and other project elements. The alignment and project elements are discussed below. This route would have no surface impacts on the GSENM. This alternative would require a new 100-foot right-of-way parallel to but separated from the existing 69 kV line right-of-way for constructability and safety reasons, in order to safely build and energize the line prior to removal of the existing line. The minimum separation distance between the existing 69 kV line and the proposed 138 kV line was calculated based on Bulletin 1724E-200, Design Manual for High Voltage Transmission Lines (USDA 2009). Under Alternative B the proposed 138 kV line is designed by be separated from the existing 69 kV line by a minimum of 100 feet (pers. comm. Between T. Hale and B. Shakespear June 21, 2010).

Page 2-42:

Explanation has been added to Section 2.9.3. Buried Line Alternative. The following paragraphs should be added after the first sentence under the heading.

Burying the transmission line would require removing topsoil and vegetation in the area of the trench where the line would be buried, and crushing and trampling of vegetation along the sides of the trench; more extensive surface disturbance than that expected with construction of above ground transmission systems. In the arid southern Utah environment, vegetation and sensitive biological soil crusts are difficult to reestablish and slow to recover. The scar of the ground disturbance would be obvious for years and visible for decades.

The proposed route through the GSENM has a High Potential Fossil Yield Classification (4). This means that there is a high occurrence of significant fossils in the geologic unit where 3.68 miles of the proposed route would be located. Burying the transmission line through the GSENM at the necessary depths would require increased disturbance to the geologic unit compared to installing an above-ground transmission line. This increased disturbance to the geologic unit could increase the likelihood of impacts to paleontological resources, and could potentially hinder the purposes of the proclamation establishing GSENM specifically protecting the paleontological resources.

The remaining two paragraphs under this heading should be revised to read as follows:

Another 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 all of these reasons, this alternative was eliminated from further analysis.

Page 2-43:

An Alternative considered but eliminated from detailed analysis was inadvertently omitted from the DEIS. Insert heading and following text as it appears below.

2.10.6 Combined Transmission Facilities Alternative

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 and 3.04 miles through Table Cliffs-Henderson Canyon IRA and Shakespear Point IRA. This option was considered impractical for many reasons and was not carried forward for detailed analysis. Because a new right-of-way 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/PacifiCorp transmission line would not be adequate to support the electrical capacity of both transmission lines. The Rocky Mountain Power/PacifiCorp 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-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/PacifiCorp transmission line, would require the construction of additional temporary access roads and work areas.

This alternative would likely disrupt electrical service to customers in Utah. Even through 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, and would require an additional 100 foot right-of-way, which would not reduce or resolve resource conflicts. Other paths of electrical conveyance entering Utah from Arizona would also be disrupted.

Because this alternative would 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. (Rocky Mountain Power 2011)

Page 2-51:

Table 2.10-7 is revised as presented on page 21 of this FEIS. The following explain corrections that were made to Table 2.10-7.

Route Length. Mileage of the alternatives routes was added.

General Disturbance Acreage, *Limited Access*. The mileages for Alternatives A and C were reduced. They formerly included the *limited access* mileage for removal of the 69 kV line, which is shown in the far right column.

Paleontological Resources. Project Area, short-term, and long-term disturbance acreages have been updated to reflect changes resulting from public comments (see Chapter 4 revisions below).

Soils, Highly Erodible Soils. Acreages of disturbance under all alternatives have been revised to correct erroneous acreages provided in the DEIS.

Special Status Species, Fragmentation, Utah Prairie Dog. Text changes to the descriptions of Alternatives A through C were made to better reflect the DEIS analysis.

- Alternative A: Replace "Unlikely to be adversely affect" with "Short-term, minor."

- Alternative B: Replace "More adverse than Alt A, due to Johnson Bench concentration (potential territories)" with "Short-term, minor to moderate."
- Alternative C: Replace Less likely. Fragmentation of potential territories less likely due to lower habitat quality" with "Short-term, minor to moderate."

Chapter 3

Page 3-7:

The paragraph under the heading **Sevier River Formation (Ts)** should read:

The Sevier River Formation is Pliocene to possibly Miocene in age and is characterized by poorly consolidated coarse to fine-grained clastic fluvial deposits locally containing airfall tuffs and lacustrine rocks (Eppinger et al. 1990). This formation is believed to have at least in part been formed by alluvium washed in by the Sevier River and deposited as valley fill (Ives 1947). A review of Kirkland, et al. (2006) indicates that there have been recent discoveries of richly preserved Miocene fauna within the Sevier River Formation in Utah.

Page 3-10:

Table 3.2-1, fifth column, third line after heading row – change to Class 4.

Page 3-11:

Figure 3.2-2 has been revised; replace Figure 3.2-2 with the following revised version.

Page 3-33:

Insert text after second paragraph under heading **3.4.2.5. Water Rights**:

There are two municipal public water systems (PWSs) in the project area that are protected under Utah R309-600, Source Protection: Drinking Water Source Protection For Ground-Water Sources. The protected systems are the Hatch and Tropic municipal water systems. None of the Action Alternatives would cross either of the protection zones.

In addition to the municipal PWSs there are several transient (non-community) PWSs in the project area. Transient PWSs are those which serve parks, campgrounds, restaurants, resorts or similar facilities. The Bryce Canyon Pines, Pines Highway Rest Area, and Bristlecone systems are along Route 12 and would be crossed by Segment A-1 (Personal Communication, Kate Johnson, Utah Department of Environmental Quality, Division of Drinking Water).

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Figure 3.2-2. Potential Fossil Yield Classification in the Project Area

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Page 3-55 – 3-56:

The first paragraph under the heading **Migratory Birds** should read:

The decline of migratory bird species is well documented and has been attributed to a complex set of interacting factors that consist mainly of habitat losses. Migratory birds are protected under the Migratory Bird Treaty Act, which prohibits "take" (harassment, harm, pursuit, hunting, shooting, killing, capture, or collection) of migratory birds and emphasizes conservation of migratory bird populations and long-term sustainability of their habitats. Direction from the USFWS regarding migratory birds on USFS-administered lands states that activities occurring within migratory bird habitats should "minimize direct take of individual migratory birds when feasible" (USFS 2007). The BLM follows Instructional Memorandum 2008-050 (BLM 2007b) for migratory bird guidance, which recommends management of habitat for migratory bird species of concern (i.e., those listed as "priority" in Parrish et al. 2002, IWJV 2005, or USFWS 2002; see below) through avoidance or minimization of negative impacts and by maintaining and improving habitat quantity and quality. Raptors are protected under the Migratory Bird Treaty Act, and bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) have additional protection from the Bald and Golden Eagle Protection Act of 1940, as amended. The Bald and Golden Eagle Protection Act prohibits the taking, possession, and commerce of individual birds. Although the Bald and Golden Eagle Protection Act was modeled from the Migratory Bird Treaty Act, its civil and criminal penalties are more severe.

Page 3-56:

Third paragraph, third line, second cite should read:

(USFWS 2008)

Page 3-59:

First table footnote should read:

Source: Transcon 2008c, Parrish et al. 2002, DNF Bird List, USFWS 2008a

Page 3-61:

Subsequent to publication of the DEIS, the DNF completed an Environmental Assessment for an Aquatic Monitoring Amendment to the LRMP (USFS 2010). The amendment identifies additional native fish species that are Management Indicator Species for the DNF. This amendment results in the following addition to the DEIS.

Table 3.7-3 is revised as follows.

Table 3.7-3. Management Indicator Species on the DNF and Their Associated Habitats

MANAGEMENT INDICATOR SPECIES	ASSOCIATED HABITAT
Bonneville cutthroat trout *Oncorhynchus clarkii utah*	Headwater streams
Brook trout *Salvelinus fontinalis*	Streams, rivers, lakes, and reservoirs
Brown trout *Salmo trutta*	
Cutthroat trout (other spp.) *Onychorhynchus clarki*	
Rainbow trout *Oncorhynchus mykiss*	
Southern leatherside chub *Lepidomeda aleciae*	Streams
Virgin spinedace *Lepidomeda mollispinis mollispinis*	

Source: DNF LRMP (1986) and Aquatic Monitoring Amendment (2010).

Note: All species except Bonneville cutthroat trout, brook trout, and Virgin spinedace may be present in the Project Area.

Page 3-66:

Table 3.8-3, ninth line, Ute ladies' tresses.

Entry should read:

NO—No occurrences known. This species inhabits intermontane valleys and is found on silty loam alluvial soils associated with wetlands or floodplains of perennial streams. In 2008, Transcon Environmental performed detailed pedestrian surveys along the alternative routes of the project and no Ute ladies' tresses were reported. Based on conversation with federal botanists, this plant is not known to occur within the project area. Closest occurrence is along Henrieville Creek, about 5 miles northeast of Henrieville and about 7 miles east of the Project Area.

Subsequent to publication of the DEIS, the DNF completed an Environmental Assessment for an Aquatic Monitoring Amendment to the LRMP (USFS 2010). The amendment identifies additional native fish species that have special conservation needs. This amendment results in the following addition to the DEIS.

Table 3.8-3, after 6th line, add a line and the following species information for the Virgin spinedace.

Virgin Spinedace *Lepidomeda mollispinis mollispinis*	Fish DNF-S BLM-S	NO—No suitable habitat. This species is found only in tributaries of the Virgin River.

Page 3-67:

Table 3.8-3, add southern leatherside chub information after the ninth line, roundtail chub.

SPECIES	TYPE & STATUS[1]	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE E – AGENCY PREFERRED ALTERNATIVE
Southern leatherside chub *Lepidomeda aleciae*	Fish DNF-S	YES – Present in Sevier River north of Hatch (A-3) and East Fork Sevier River in John's Valley (A-1).	YES – Present in Sevier River north of Hatch and East Fork Sevier River in John's Valley.	YES – Present in Sevier River north of Hatch (C-3) and East Fork Sevier River in John's Valley (C-1).	YES – Present in Sevier River north of Hatch and East Fork Sevier River in John's Valley.

Page 3-68

Bighorn Sheep were added to the USFS Region IV Sensitive species list on July 29, 2009. Information on bighorn sheet was inadvertently omitted from the DEIS. Table 3.8-3, add bighorn sheep information after the second line, before pygmy rabbit.

Bighorn sheep *Ovis canadensis spp.*	Mammal DNF-S	NO— lack of habitat for this species in the project area, and lack of connectivity of habitat to known populations.

Page 3-71

Table 3.8-3, revise the fourth line, western toad, to boreal toad; and information about possible occurrences and suitable habitat within the alternative routes as indicated below.

SPECIES	TYPE & STATUS[1]	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE E – AGENCY PREFERRED ALTERNATIVE
Boreal toad *Bufo boreas*	Amphibian DNF-S BLM-S	POSSIBLE – Toads may occur within East Fork Sevier River (A-1)	POSSIBLE – Toads may occur within East Fork Sevier River	POSSIBLE – Toads may occur within East Fork Sevier River (C-1)	POSSIBLE – Toads may occur within East Fork Sevier River

Page 3-76:

The paragraph under heading **3.8.2.2 Mexican Spotted Owl** should read:

The Mexican spotted owl is a large owl that typically roosts and nests in shady, mature forests but in southern Utah prefers the cracks of deep slot canyons (USFWS 1995). In Utah, breeding spotted owls typically utilize deep, steep-walled canyons that contain mature coniferous or deciduous trees within the canyon bottom.

Page 3-79

Add before Pygmy Rabbit:

3.8.2.3 Southern Leatherside Chub

The southern leatherside chub is a small desert fish endemic to streams in the southern and eastern Bonneville Basin. Southern leatherside chub was formerly known as leatherside chub, which was split into two unique species, the northern and southern leatherside chub (the following is taken from UDWR 2010). Southern leatherside chub require flowing water and do not persist in lakes or reservoirs. Occupied streams have a high variability of stream flow, annual precipitation, gradient, elevation, conductivity, and pH. Adult and juveniles utilize the main channel of streams more often than off-channel habitats, although the presence of brown trout may shift habitat use. Southern leatherside chub occur in streams with a broad range of temperatures and have habitat requirements of healthy riparian vegetation and intact streambanks. Southern leatherside chub have been documented in six 4th-level HUCs in the Sevier River drainage within the following streams since 1994: Threemile Creek, Bear Creek, Panguitch Creek, Butler Creek, Mammoth Creek, and Asay Creek, the mainstem of the upper Sevier River, the East Fork Sevier River, Clay Creek, and Otter Creek (UDWR 2010). Southern leatherside chub were not documented during surveys in 2004 at the East Fork Sevier River and tributaries, including Kanab Creek near Tropic Reservoir (UDWR 2004). Southern leatherside chub were documented on the East Fork Sevier River at three stations in John's Valley in 2007 (UDWR 2007) and at four stations in Kingston Canyon (north of the Project Area) in 2009 (UDWR 2009a). In the Sevier River mainstem north of Hatch (Hatch Restoration Area), southern leatherside chub have been documented in 2006, 2007, and 2008 (UDWR 2008a).

Page 3-81:

The first full paragraph on page 3-81 (under heading **3.8.2.8. Greater Sage-grouse**) should read:

The availability of forb-rich habitats in close proximity to protective cover appears to be an important consideration for early brood-rearing. Late brood-rearing habitats are those used by sage-grouse starting later in the summer, following desiccation of herbaceous vegetation in sagebrush uplands. Sage-grouse usually select late-summer habitats based on the availability of forbs; these areas are often wet meadows or irrigated pastures adjacent to sagebrush. Winter habitats of sage-grouse are dominated by sagebrush that can provide shelter and food. Habitat selection during winter is influenced by snow depth and hardness, topography, and vegetation height and cover. Sagebrush plants must be exposed above the snow to provide forage. Sage-grouse may roost in snow burrows during this period to conserve energy. Sage-grouse habitat quality and quantity has declined throughout Utah and coincides with declines in sage-grouse numbers (UDWR 2009b).

Page 3-83:

Insert after **3.8.2.15. Ferruginous Hawk**:

Boreal Toad

The boreal toad (subspecies of the western toad) within Utah and in the Project Area is not part of the Southern Rocky Mountain DPS (Distinct Population Segment) that was Candidate for Listing until 2005. Western toads are found in a variety of habitats such as desert springs and streams, meadows and woodlands, and in and around ponds, lakes, reservoirs, and slow-moving rivers and streams. Breeding areas are typically shallow water areas at the edges of ponds, or lakes, stream or river edges with slow-moving water, or other flooded or ponded areas (Keinath and McGee 2005). After breeding, western toads move to more terrestrial habitats and eventually to hibernacula that may be a substantial distance from the breeding site (up to 2.5 km, but usually much less; Keinath and McGee 2005). Occupied wetlands in Utah are surrounded by a variety of upland vegetation communities, including sagebrush and grassland, pinyon-juniper, mountain shrubs, and coniferous forest. Extensive observations of upland and winter habitat use in Utah have not been completed. However, toads have been observed using small mammal burrows in drier upland areas. Breeding habitats in Utah include low velocity, low gradient streams, off channel marshes, beaver ponds, small lakes, reservoirs, stock ponds, wet meadows, seeps, and associated woodlands. Hibernacula in Utah have not been described. As of 2005, only one hibernaculum was discovered in the Paunsaugunt Plateau. UDWR Inventories of boreal toads in southern Utah from 1994 to 1998 reported toads within the Dixie National Forest from seven beaver dam complexes within the East Fork Sevier River, Left Fork Kanab Creek, and Tropic Reservoir (UDWR 2000). In recent years, however, breeding activity in this area appears to be limited to only a few beaver ponds upstream from the Mill Creek confluence and along the Left Fork of Upper Kanab Creek (M. Golden, Dixie National Forest fish biologist, pers comm. 22 March 2010). No boreal toads were found during surveys of the Project Area (Transcon 2008c).

Page 3-95:

The following information expands on information presented in the DEIS relevant to land use within GSENM.

Insert text under heading **Bureau of Land Management,** *Grand Staircase-Escalante National Monument*:

The GSENM as established by Presidential Proclamation 6920 on September 18, 1996 (americantrails.org 2010). The Proclamation states that the GSENM was established for the purpose of protecting the objects identified in the proclamation. A major management emphasis of the approved GSENM Management Plan calls for the management of uses to protect and prevent damage to monument resources (BLM 2000) including but not limited to archeology, history, paleontology, air, water; biological resources, including special status species; soils and biological soil crusts; and noxious weed control. Management direction for GSENM must comply with the purposes and objectives of the proclamation regardless of any conflicts with FLPMA's multiple-use mandate (BLM 2009).

Page 3-99:

Insert text under heading **National Park Service**:

The 1916 Organic Act states that the mission of the National Park Service is, "…to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." (NPS 1916)

Chapter 4

Page 4-5:

The first paragraph under **4.2.2.2. Alternative A: Proposed Action** should read:

Under Alternative A, the proposed transmission line Project Area would contain 22.07 acres of Class 1 units, 182.42 acres of Class 2 units, 0 acres of Class 3 units, 164.28 acres of Class 4 units, and 122.91 acres of Class 5 units. As discussed in **Chapter 3**, geologic units with a PFYC of Class 1 or Class 2 are not likely to contain significant fossil resources and are considered to have a "low" paleontological resource potential. Under this alternative, a total of 278.74 acres associated with construction of the transmission line would be within paleontologically sensitive units (PFYC Classes 3, 4, and 5).

The second paragraph under the same heading should read:

Under Alternative A, short- and long-term ground disturbances within and outside of the rights-of-way would occur in 7.24 acres of Class 1 units, 99.44 acres of Class 2 units, 0 acres of Class 3 units, 82.56 acres of Class 4 units, and 53.15 acres of Class 5 units. A total of 135.70 short- and long-term disturbance acres would be within paleontologically sensitive units (PFYC Classes 3, 4, and 5).

Page 4-6:

The first sentence of first full paragraph should read:

In total, 242.39 acres of disturbance is anticipated under Alternative A.

The first paragraph under **4.2.2.3. Alternative B: Parallel Existing 69 kV Route** should read:

Under Alternative B, the Project Area would contain 57.03 acres of Class 1 units, 189.48 acres of Class 2 units, 0 acres of Class 3 units, 122.93 acres of Class 4 units, and 48.65 acres of Class 5 units. A total of 171.58 acres associated with the transmission line would be within paleontologically sensitive units (PFYC Classes 3, 4, and 5).

The second paragraph under the same heading should read:

Under this alternative, short- and long-term ground disturbances associated with construction would occur in 29.24 acres of Class 1 units, 116.83 acres of Class 2 units, 0 acres of Class 3 units, 48.52 acres of Class 4 units, and 23.60 acres of Class 5 units. A total of 72.13 acres associated with construction of the transmission line would be within paleontologically sensitive units (PFYC Classes 3, 4, and 5).

The first sentence of the third paragraph should read:

In total, 218.20 acres of disturbance is anticipated under Alternative B.

The first paragraph under **4.2.2.4. Alternative C: Cedar Fork Southern Route** should read:

Under Alternative C, the Project Area would contain 22.07 acres of Class 1 units, 219.46 acres of Class 2 units, 0 acres of Class 3 units, 119.65 acres of Class 4 units, and 137.25 acres of Class 5 units. A total of 256.90 acres associated with construction of the transmission line would be within paleontologically sensitive units (PFYC Classes 3, 4, and 5).

The second paragraph under the same heading should read:

Under this alternative, short- and long-term ground disturbances associated with construction would occur in 6.47 acres of Class 1 units, 134.54 acres of Class 2 units, 0 acres of Class 3 units, 76.43 acres of Class 4 units, and 72.16 acres of Class 5 units. A total of 148.59 short- and long-term disturbance acres would be within paleontologically sensitive units (PFYC Classes 3, 4 and 5).

Page 4-7:

The first sentence of the first full paragraph should read:

In total, 289.60 acres of disturbance is anticipated under Alternative C.

Page 4-8:

Replace **Tables 4.2-1** and **4.2-2** with the following tables:

Table 4.2-1. Summary of Project Area Acreage by PFYC Class

PFYC Ranking	Alternative A	Alternative B	Alternative C	Interconnects		69 kV Line Removal, Alts A & C
				North-South	East-West	
Class 1	22.07	57.03	22.07	0.00	0.00	4.98
Class 2	182.42	189.48	219.46	0.00	7.94	32.03
Class 3	0	0	0	0.00	0.00	0
Class 4	164.28	122.93	119.65	11.07	0.00	12.62
Class 5	122.91	48.65	137.25	16.16	40.73	0
Total Class 3-5	278.74	171.58	256.90	27.23	40.73	12.62
Total Project Area Acres*	**483.23**	**418.09**	**498.43**	**27.23**	**48.67**	**49.63**

*Includes most but not all short- and long-term ground disturbances related to project components outside of the right-of-way.

Table 4.2-2. Summary of Proposed Disturbance Acreage

PFYC Ranking	Alternative A	Alternative B	Alternative C	Interconnects		69 kV Line Removal Alts A & C
				North-South	East-West	
Class 1	7.24	29.24	6.47	0.00	0.00	4.98
Class 2	99.44	116.83	134.54	0.00	6.39	32.03
Class 3	0	0	0	0.00	0.00	0
Class 4	82.56	48.52	76.43	12.49	0.00	12.62
Class 5	53.15	23.60	72.16	4.19	24.43	0.00
Total Class 3-5	135.70	72.13	148.59	16.68	24.43	12.62

PFYC	ALTERNATIVE	ALTERNATIVE B	ALTERNATIVE C	INTERCONNECTS		69 KV LINE
Total Disturbance Acres*	**242.39**	**218.20**	**289.60**	**16.68**	**30.82**	**49.63**

* Includes short- and long-term disturbance calculated using GIS as well as estimated power pole disturbance acreage. Due to subtle differences in GIS data files, there are slight discrepancies between disturbance acreages listed here and those in general disturbance tables found in Chapter 2.

Page 4-32:

Insert text under the heading and after the existing paragraph.

Water Rights.

Segment A-1 would cross drinking water source protection zones for three transient (non-community) public water systems serving Bryce Canyon Pines, Pines Highway Rest Area, and Bristlecone (Personal Communication, Kate Johnson, Utah Department of Environmental Quality, Division of Drinking Water June 16, 2010). The most likely sources of contamination to the wells protected under this program would be through use of chemicals on the surface or if holes dug for poles were to breach the drinking water aquifer. Use of the SPP and BMPs described in Section 4.4.2.1 above would reduce the risk of contamination through chemical use to a negligible level. A sampling of five well logs in the area showed static water levels between 18 and 32 feet, with all wells having at least six feet of clay (low permeability) above the static water level, which would effectively filter any sediment mobilized during construction. Therefore, any impact to protected drinking water sources from construction would be short-term and negligible along this segment.

Page 4-59:

Add text under heading **4.7.2.1 Impacts Common to All Action Alternatives**:

All Action Alternatives would be compliant with the direction and intent of E.O. 13186, the Migratory Bird Treaty Act.

Page 4-61:

Insert the following table:

Nesting Periods and Recommended Buffers for (Non-Sensitive) Raptors in the Project Area

SPECIES	SPATIAL BUFFER (MILE)	NESTING PERIOD	KNOWN NESTS WITHIN 0.5-MILE OF PROPOSED TRANSMISSION LINES?
Golden eagle	1.0	01/01 – 08/31	No, but possible
Prairie falcon	0.25	04/01 – 08/31	No, but possible
Short-eared owl	0.25	03/01 – 08/01	No, but possible
Swainson's hawk	0.5	03/01 – 08/01	No, but possible

Page 4-63:

Subsequent to publication of the DEIS, the DNF completed an Environmental Assessment for an Aquatic Monitoring Amendment to the LRMP (USFS 2010). The amendment identifies additional native fish species that are Management Indicator Species for the DNF. To account for this change, the heading "Trout Species" has been changed to "USFS Aquatic MIS". Text associated with this heading should read:

USFS Aquatic MIS

- **Indicator (6): Number/type of crossings.** Culverts would not be used under any alternative and low-water crossings would be preferred. Perennial streams where trout may occur would be spanned and would not be crossed by vehicles or other motorized equipment. In intermittent drainages where trout may be downstream, trout may be affected by the level of sediment that may be introduced when flows occur through previously crossed areas. These impacts, if they occurred, would be short-term and minor. Trout are present far enough downstream from drainages in the disturbance area that indirect impacts are unlikely. Impacts to southern leatherside chub are described in Section 4.8.

Page 4-64:

Table 4.7-8, should read as follows:

Table 4.7-8. Wildlife and Fish Resource Management Guidelines for MIS (USFS 1986)

GUIDELINE	TERRESTRIAL SPECIES: MULE DEER, ELK, GOSHAWK, WILD TURKEY, AND FLICKER	AQUATIC SPECIES: TROUT, SOUTHERN LEATHERSIDE CHUB
Maintain habitat capability at a level at least 80% of potential capability for all emphasized species.	WOULD COMPLY There would not be a loss of mature aspen in the disturbance areas. The loss of mature conifer communities would not be substantial enough to lower habitat capability below 80% for any MIS.	WOULD COMPLY Construction would not directly affect perennial streams in the Project Areas where MIS may occur; thus current habitat capability would be maintained.
Maintain habitat needed to support the coordinated population goals	WOULD COMPLY Population goals are being met for MIS on the Dixie; terrestrial species have generally increased in the past few years due to increased precipitation. Levels of mortality that would affect population numbers are not expected under the alternatives; thus population goals for all MIS would continue to be met.	WOULD COMPLY MIS fisheries are stable but currently below population goals on the DNF due to recent fires that have degraded habitat. However, because the alternatives would not directly affect (perennial) aquatic habitats, habitats would continue to recover along the expected trajectory to support population goals in the future.
Maintain hiding cover along 75% of all road edges that hides 90% of	WOULD COMPLY Construction activities are unlikely to remove a substantial amount of	Not applicable

GUIDELINE	TERRESTRIAL SPECIES: MULE DEER, ELK, GOSHAWK, WILD TURKEY, AND FLICKER	AQUATIC SPECIES: TROUT, SOUTHERN LEATHERSIDE CHUB
an adult deer or elk from 200 feet away.	vegetation along existing roads; thus 75% of hiding cover would be maintained.	
In forested habitats, maintain 50% minimum hiding cover for deer and elk that is well distributed over the unit, and maintain 30% thermal cover in the unit.	WOULD COMPLY Construction activities would not disturb a substantial portion of cover in any one area. Along each alternative, these proportions of hiding and thermal cover would be maintained considering the small amount of planned disturbance within forested habitats.	Not applicable

Page 4-76:

The first paragraph after heading **Indicator (1): Acres of Habitat Disturbed** should read:

Acres of direct disturbance of habitat were compared to available habitat. Habitat disturbances were analyzed in the context of the Project Area. The acreage of habitat disturbance was divided by the total acreage of that habitat in the Project Area. Impacts were determined directly from calculated percentages.

Page 4-77:

Add after Indicator 5, and renumber Compliance with National Park Service Management Policies as Indicator 7.

Indicator (6): **Aquatic Habitat**

Table 4.7-7 (see wildlife section) discusses impact criteria related to the number and type of stream, riparian area, and wetland crossings. Impacts to aquatic species were evaluated by identifying areas of proposed stream or wetland crossings and by using current information about the status and persistence of aquatic species populations in the area to assess relative vulnerability to decline or fragmentation from a road crossing. Aquatic species that are sensitive to sedimentation impacts or that migrate between habitats were assumed to be most likely to be affected by road crossings.

Page 4-79:

Add after Table 4.8-2:

Aquatic Species. Impacts to special status aquatic species (southern leatherside chub and boreal toad) are discussed here because they would not differ among the alternatives. General impacts to aquatic habitat can be found in **Section 4.7**.

Indicator (6): Crossings in aquatic habitat. The Sevier River would not be crossed under any alternative. In intermittent drainages where aquatic species may be downstream (i.e., East Fork Sevier River), aquatic species may be affected by sediment downstream from a crossing, after the crossing has been installed and removed. These impacts would be short-term and minor.

Boreal toad (S). Boreal toads may occur in the East Fork Sevier River, either within or downstream of the Project Area, therefore reproductive (aquatic) habitat for this species may be affected as described for southern leatherside chub. These impacts would be short-term and minor.

Southern leatherside chub (S). Southern leatherside chub in the Sevier River would not be affected by the Action Alternatives. Southern leatherside chub in the East Fork Sevier River (downstream of the Project Area) may be affected by sediment introduced from low-water crossings in upstream reaches. These impacts, if they occurred, would be short-term and minor.

Page 4-97:

The acreage of habitat disturbed for Greater sage-grouse described under Alternative C in the DEIS text was reported incorrectly. Text under the heading **Indicator (1): Acres of habitat disturbed** should read:

There would be 22 acres of brood-rearing habitat for greater sage-grouse disturbed for the long term and 84 acres disturbed temporarily during construction. Regarding use areas, 5 acres would be disturbed for the long term and 15 acres would be temporarily disturbed during construction. The Project Area for Alternative C contains 257 acres of brood-rearing habitat and 67 acres of use area, which is the smallest amount of use habitat present among all three Action Alternatives. Habitat impacts would be minor under Alternative C due to the reduced amount of use area disturbed. This is the most important habitat for sage-grouse because it includes known breeding areas, and thus would determine the magnitude of impacts for *Indicator (1).*

Page 4-116:

The second paragraph under heading **Grand Staircase-Escalante National Monument** should read:

The proposed 138 kV transmission line would meet the current and future electrical needs for the Hatch, Utah area, which would be a local, not regional need; meeting the intent of Plan decision Land-7. The only alternative available would be Alternative B, which would place the 138 kV transmission line in BRCA. The transmission line would not be consistent with the NPS Mission or Management Policies (2006; Section 4.102.3).

Page 4-189:

The second paragraph under the heading **4.15.2.5. Alternative D: No Action** should read:

Generators are currently used to temporarily increase capacity during peak loads (typically during higher demand times in the summer and winter). Increasing demand and limited capacity would cause safety equipment to shut down portions of the system more frequently, resulting in increased black outs and brown outs. If the project were not constructed, the continued operation of the existing 69 kV transmission line would mean that system reliability would continue to decrease even with major maintenance to the system. This would require increased use of additional diesel generators. When poor power quality causes customers electrical equipment to fail, increases outages and makes restoring power after an outage more time consuming and difficult, federal regulations require utilities to implement load shedding (rolling blackouts) procedures which cut power to non-essential users in order to restore power quality (Garkane 2010).

4-220:

Cumulative impacts to Utah prairie dog were inadvertently omitted from Section 4.19.9, Special Status Species. The following text should be inserted after the third paragraph under the heading:

Past, present and reasonable foreseeable future actions in Utah prairie dog habitat include fragmentation from development and roads; livestock grazing; power line development, unauthorized shooting, unauthorized take, and mineral developments. Conversion of lands to agriculture in the CEA generally reduces native shrub vegetation and decreases the amount of habitat available to Utah prairie dog. Agriculture development contributes to fragmentation as well as habitat loss (Bosworth 2003). In general, grazing can change the composition, structure, and function of vegetation, which can adversely affect Utah prairie dog. The impacts of grazing on grassland habitats, however, are not clearly adverse or beneficial (USFWS 2007).

The cumulative effects of these actions have and will continue to impact Utah prairie dogs and the effectiveness and availability of habitat within the cumulative effects area for special status species by increasing habitat fragmentation conditions and directly, or indirectly impacting individual Utah prairie dogs. The addition of any of the Action Alternatives in occupied Utah prairie dog habitat would contribute to some level of habitat loss or alteration.

Prairie dogs may be attracted to sites outside of the 0.5-mile buffer that are suitable habitat or become suitable due to ground disturbance, where construction activities are permitted. Prairie dogs may then be in closer proximity to the power line and more susceptible to raptor predation.

Considering the past losses of Utah prairie dog habitat and unsuccessful reintroduction program, cumulative impacts to Utah prairie dog could occur under the Action Alternatives as a result of impacts from power line development within a Utah prairie dog colony area. Impacts would be minor to moderate, depending on the extent of the disturbance. Cumulative impacts could be moderate if a colony area was removed. Cumulative impacts would be minor if habitat within a colony area was removed and prairie dogs were not directly affected.

Appendix A

Page A-9:

Revise heading to read:

Raptors

Page A-14:

Add heading after third paragraph.

Sensitive Raptors

References

The following are additions to the DEIS References Cited.

americantrails.org. 2010. Federal Land Management, Presidential Proclamation establishing Gran d Staircase-Escalante National Monument. http://www.americantrails.org/resources/fedland/escalantenmproc.html. November 24, 2010.

Bureau of Land Management (BLM). 2010. BLM Mission and History. http://www.blm.gov/natacq/BLMMissHistExc.pdf. July 1, 2010.

Bureau of Land Management (BLM). 2009. Instruction Memorandum No. 2009-215, Planning for Special Designations within the National System of Public Lands. September 21, 2009.

Garkane. 2010. Comment letter on Tropic to Hatch 138 kV Transmission Line DEIS. March 4, 2010.

Kirkland, JI, D. D. Deblieux, M. Hayden and G. Willis. 2006. Utah Geological Survey: A Valuable Partner in the Management of Federal Fossil Resources. Published in Fossils from Federal Lands, New Mexico Museum of Natural History and Science Bulletin 34. S.G. Lucas, J.A. Spielman, P.M. Hester, J.P. Kenworthy and V.I Santucci, eds.

Rocky Mountain Power. 2011. Letter from Sharon Seppi, Rocky Mountain Power to Juan Palma, BLM Utah State Director. January 7, 2011

U.S. Department of Agriculture (USDA). 2009. Bulletin 1724E-200, Design Manual for High Voltage Transmission Lines. USDA, Rural Utilities Service, Electric Staff Division. May 2009. http://www.usda.gov/rus/electric/pubs/1724e200.pdf.

U.S. Fish and Wildlife Service (USFWS). 2008a. Birds of Conservation Concern 2008. U.S. Department of the Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington Virginia. 86 pp [Online version available at http://www.fws.gov/migratorybirds/]

U.S. Fish and Wildlife Service. 2007. Endangered and Threatened Wildlife and Plants; 90-day Finding on a Petition to Reclassify the Utah Prairie Dog from Threatened to Endangered and Initiation of a 5-year Review. Federal Register Vol. 72 No. 34. February 21, 2007.

U.S. Forest Service. 2010. Environmental Assessment, Aquatic Monitoring Amendment, Dixie National Forest. June 2010.

Utah Division of Wildlife Resources (UDWR). 2010. Conservation Agreement and Strategy for Southern Leatherside (*Lepidomeda aliciae*) in the State of Utah. UDWR Publication Number 10-19. Salt Lake City, Utah.

Utah Division of Wildlife Resources (UDWR). 2009a. UDWR Southern Leatherside Surveys: East Fork of the Sevier River in Kingston Canyon Wildlife Management Area. WFCO Field Report. 30 March 2009.

Utah Division of Wildlife Resources (UDWR). 2009b. Utah Greater Sage-Grouse Management Plan, Publication 09-17. June 4, 2009.

Utah Division of Wildlife Resources (UDWR). 2000. Boreal toad (*Bufo boreas boreas*) distribution surveys in southwestern Utah 1994-1998. UDWR Publication Number 00-10. February 2000.

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Appendix 1:
Draft EIS Comments, Agency Responses, and Text Changes

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Text to be added to a referenced section is <u>underlined</u>, while text to be deleted is in ~~strike through~~.

Appendix 1. DEIS Comments, Agency Responses, and Text Changes

ID #	COMMENT	AGENCY RESPONSE TO COMMENT	REQUIRED DOCUMENT CHANGE
01-01	Please go with the Red line - Preferred Plan Alternative.	Comment noted. The USFS and BLM utilize multiple-use sustained yield management principles, and will make decisions based on the understanding of environmental consequences of the project. Environmental consequences are disclosed in Chapter 4 of the EIS. The USFS and other cooperating agencies will select an alternative based on an overall analysis of environmental impacts, other relevant factors, and agencies' statutory missions. The basis for alternative selection will be specified in the Record of Decision.	None
02-01	I believe the preferred alternative route offers the best solution to the problems presented by putting a new line (an extremely necessary line for the supplying the power needs of Cedar Mt. Hatch area) through a very scenic area with a diversity of wildlife. It will permit the removal of the line in Red Canyon, the avoidance of any new construction in the park.	Comment noted. Please see response to Comment 01-01.	None
02-02	The line parallels existing lines where possible, it follows Forest boundaries to minimize interference with either the Forest or the private land holdings. The human environment in Western Garfield depends on the line being built, and Garkane has invested a long time and much money in trying to get the best route approved, and this proposed route is an excellent one that should be approved (quickly).	Comment noted. Please see response to Comment 01-01.	None
03-01	I am the current President of the Lions Head Property Owners Association located within (Bryce Woodlands Estates) just south east of Hatch, Utah. We have several year-round residents that are older and have health issues. We experience regular black outs on a daily/weekly basis. We have had extreme weather conditions this winter season and we are very concerned about life safety. This study has no bearing on life safety. I would ask that you stop this study for the safety of the residence in our community and go forward with the transmission line to help eliminate the black outs that are continually accruing.	The USFS notes your concerns with public health and safety issues associated with delayed construction of the proposed transmission line. The USFS and its cooperating agencies must adhere to the National Environmental Policy Act which requires that environmental impact analyses be completed prior to making a decision on whether to grant the requested permits.	None
04-01	The state supports the selection of the preferred alternative (Alternative C) by the Forest Service for the proposed Tropic to Hatch transmission line. The preferred alternative is "consistent with the land use management policies of the Dixie National Forest" (4.10.2.1), and "would not conflict the BLM Kanab Field Office Resource Management Plan" (4.10.2.2).	The USFS appreciates the State's comments and notes that these issues were considered by the Service and cooperating agencies when identifying the Preferred Alternative.	None
04-02	In addition, the state appreciates the flexibility demonstrated by the BLM by favoring an amendment to the GSENM Management Plan to allow a 300-feet-wide, 3.68 mile stretch of the Primitive Zone to be reclassified into the Passage Zone, and changing the existing VRM Management Class designation to Class III, in order to facilitate the corridor required for the power line.	The proposed route through the GSENM would require a change in the GSENM Management Plan to permit Garkane a 100 foot right-of-way to meet local not regional electrical need. The alternative to amend the plan to a 300-foot-wide Passage Zone would place Garkane's proposed 138 kV line, along with the existing 230 kV line and access roads within a Passage Zone. This would be consistent with the guidance provided for the Passage Zone provided in Chapter 2, page 9 of the GESNM Management Plan: "The primary criterion for developing the zone boundaries was again dominant terrain. The boundary does not constrict closer than 100 feet to designated routes, and encompasses most obvious imprints of human activities such as trail heads, transmission	None

ID #	Comment	Agency Response to Comment	Required Document Change
		rights of way, and potential resource interpretations sites within ½ mile of the subject route."	
04-03	Finally, the state believes the preferred alternative accommodates the state's concerns about the close proximity of the proposed action to active greater sage-grouse leks, by following the recommendations in Utah's Plan for Sage Grouse and Development and keeping the power line away from sage-grouse leks.	Wildlife concerns along the alternative routes were considered. Avoidance of known sage-grouse leks along with active Utah prairie dog colonies and prime habitat for both species were heavily weighed when choosing the Preferred Alternative.	None
04-04	Big Game: Large permanent landscape structures, such as transmission lines, have long-term impacts on big game populations. The final EIS should address potential impacts to big game and provide mitigation strategies that compensate for losses of habitat. To protect wintering animals, no surface-disturbing activities should be allowed from December 1 through April 15 within critical winter habitat for big game. Also, no surface-disturbing activities should be allowed from May 15 through July 15 within identified fawning or calving habitat. The Utah Division of Wildlife Resources (UDWR) recommends utilizing available GIS data to identify big game habitat along the project's path. These data are available on the UDWR web site: http://dwrcdc.nr.utah.gov/ucdc/DownloadGIS/disclaim.htm	Figure 3.7-1 shows the mapped crucial and substantial big game habitat in the vicinity of the project area. Impacts to big game are analyzed in Section 4.7 for each alternative. Local agency biologists were consulted and worked on the development of alternatives to avoid critical winter habitat and calving and fawning areas. GIS data from the agencies and UDWR were used to identify the suitable and potential big game habitat.	None
04-05	Greater Sage-grouse: The proposed transmission line passes through significant amounts of greater sage-grouse brood-rearing habitat. One of the proposed alternative routes passes within 0.5 miles of an active sage-grouse lek. Utah's Plan for Sage Grouse and Development specifically states that surface occupancy is prohibited within a minimum of 0.5 miles of active sage-grouse leks.	Alternative C was developed in part to reduce conflicts to both sage grouse and Utah prairie dogs. The Preferred Alternative incorporates a majority of Alternative C, which was developed in response to minimize impacts to sage grouse. The Preferred Alternative was developed through a joint effort of all agencies to minimize conflicts with sage grouse leks as well as other resources along the line.	None
04-06	Portions of the proposed route are also within 2 miles of one active lek and four historic primary leks. Research indicates that suitable sagebrush habitat within 2 miles of an active lek is of utmost importance to the viability of sage-grouse populations. UDWR recommends carefully designed Controlled Surface Use stipulations within the zone of 0.5 mile to 2 miles of active leks. These stipulations should include seasonal and time of day restrictions. Specifically, UDWR recommends no construction activity in these areas from 8:00 pm to 9:00 am between February 1 and June 15.	UDWR's recommended temporal restrictions of no construction activity in these areas from 8:00 pm to 9:00 am between February 1 and June 15 were added to Section 2.3.6. Construction activities could occur in these areas if the local agency biologist is certain that brooding activities would no longer be impacted.	Page 2-22: **2.3.6.3 Wildlife and Sensitive Species** Add bullet under heading: • <u>No construction activity is recommended between 8 pm and 9 am within 2 miles of active sage-grouse leks between February 1 and June 15 (UDWR 2010).</u>
04-07	Greater Sage-grouse: Access to high perches in sage-grouse habitat can greatly increase raptor predation rates. As such, anti-perching structures should be installed on any potential structure which might allow for perching built in habitat used by sage-grouse at any time of year. Also, any new structures which might allow perching should be built outside of the line-of-sight of any known leks. Analysis of impacts should consider recent research (e.g. Connelly et al. 2004, Crawford et al, 2004, Doherty et al. 2008) on sage-grouse and a thorough evaluation of available (and protected) habitat in proximity to this development. This analysis should recommend appropriate buffers that will reduce the probability that this development and any perpetual activity associated with it will affect the sage-grouse population. UDWR recommends the final EIS reference the most recent Utah plan, the "Utah Greater Sage Grouse Management Plan 2009."	As described in Section 2.3.6, Resource Protection Measures, the project has been designed so that raptor perch deterrents/discouragers would be placed on poles to minimize perching in those areas occupied by Utah prairie dog, greater sage–grouse, and pygmy rabbit. The techniques and methodologies used in this analysis consider the best available science. Connelly 2004 was cited as a reference in the DEIS. The Utah Greater Sage-Grouse Management Plan 2009 was reviewed and referenced in Section 3.8.2.9. Crawford et al 2004 and Doherty et al 2008 were also reviewed; however no revisions were made to the information in the DEIS. Both studies were done on the Powder River Basin in Wyoming, which has quite different sage-grouse habitat than southern Utah in that it is more homogenous and sagebrush stands are bigger. Sage-grouse populations in southern Utah have not contracted in size at the same scale as in Wyoming, compared to historic distribution of sage-grouse, although they obviously have declined to a certain extent in Utah with human settlement.	Page 3-81: **3.8.2.8. Greater Sage-grouse** (heading on page 3-80) Add to the end of the first full paragraph on this page: <u>Sage-grouse habitat quality and quantity has declined throughout Utah and coincides with declines in sage-grouse numbers (UDWR 2009b).</u>

ID #	COMMENT	AGENCY RESPONSE TO COMMENT	REQUIRED DOCUMENT CHANGE
04-08	Utah Prairie-dog: The proposed transmission line route will pass near and possibly through occupied and historic habitat for the Utah prairie-dog. This species is federally protected and any potential impacts (direct or indirect) to their habitat will require consultation with the U.S. Fish and Wildlife Service.	Consultation with the USFWS was initiated early and project design and alternative routes were discussed during the development of the DEIS. A Biological Assessment for the project was prepared and submitted to USFWS on November 10, 2010. USFWS requirements from the subsequent Biological Opinion, including those related to Utah prairie dog, have been incorporated into the Record of Decision.	None
04-09	Raptors/ Other Avian species: The draft EIS adequately identifies perceived threats to raptors as a result of this project. UDWR requests that all surveys for raptors (including owls) and migratory birds follow guidelines that are approved by the land management agency in consultation with UDWR. UDWR also requests copies of all avian monitoring data collected during this project to incorporate into our database.	Section 2.3.6.3 of the DEIS states that pre-construction /demolition raptor/nesting bird surveys would be conducted in accordance with USFS and other agency guidelines. Avian monitoring data will be made available to UDWR.	None
04-10	Aquatic Species: The draft EIS identifies many fish species that could be impacted by increased sedimentation from erodible soils due to construction. Construction and placement of structures and equipment should be at least 50 feet from flowing channels and drainages.	In Section 2.3.2.1 the DEIS states "Where feasible, structures would 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." In Section 4.4.2 Water Resources, the DEIS states, “The State of Utah and the National Forests in Utah have agreed, through a 2009 Memorandum of Understanding (MOU), to use Forest Plan Standards & Guidelines and the USFS Handbook No. 2509.22, Soil & Water Conservation Practices (SWCP [USFS 1988]) to meet the water quality protection elements of the Utah Nonpoint Source Management Plan. BMPs outlined in the SWCP would be followed to mitigate potential erosion and sedimentation impacts. Structures would be designed to avoid obstruction of the drainage course, including the floodplain, and fill would be stabilized and kept to a minimum.”	None
04-11	The draft EIS identifies the southern leatherside chub as a native fish in the project area. A draft Conservation Agreement for this species is available and should be utilized when identifying impacts in the final EIS.	The draft Conservation Agreement and Strategy for Southern Leatherside chub *(Lepidomeda aliciae)* in the State of Utah (UDWR 2010) was used to identify impacts to this species and revise the impacts analysis in Section 4.7 where appropriate.	Page 4-77: Add after Indicator 5, and renumber Compliance with National Park Service Management Policies as Indicator 7. **Indicator (6)**: **Aquatic Habitat** **Table 4.7-7** (see wildlife section) discusses impact criteria related to the number and type of stream, riparian area, and wetland crossings. Impacts to aquatic species were evaluated by identifying areas of proposed stream or wetland crossings and by using current information about the status and persistence of aquatic species populations in the area to assess relative vulnerability to decline or fragmentation from a road crossing. Aquatic species that are sensitive to sedimentation impacts or that migrate between habitats were assumed to be most likely to be affected by road crossings. Page 4-79: Add after Table 4.8-2. ***Aquatic Species.*** Impacts to special status aquatic species (southern leatherside chub and boreal toad) are discussed here because they would not differ among the alternatives. General impacts to aquatic habitat can be found in **Section 4.7**. **Indicator (6): Crossings in aquatic habitat**. The Sevier River would not be crossed under any alternative. In intermittent drainages where aquatic species may be downstream (i.e., East Fork Sevier River), aquatic species may be affected by sediment downstream from a crossing, after the crossing has been installed and removed. These impacts would be short term and

ID #	Comment	Agency Response to Comment	Required Document Change
			minor. *Southern leatherside chub (S).* Southern leatherside chub in the Sevier River would not be affected by the Action Alternatives. Southern leatherside chub in the East Fork Sevier River (downstream of the Project Area) may be affected by sediment introduced from low-water crossings in upstream reaches. These impacts, if they occurred, would be short-term and minor.
04-12	Monitoring: This project will incorporate various survey techniques for numerous species and habitat. Wildlife survey protocols should be adopted that are consistent with the land management agency's resource plans and draw from the most current research. Revegetation or reseeding efforts should incorporate a specific monitoring plan that is designed to ensure the effectiveness of these efforts after they are implemented. Revegetation efforts should be monitored annually for a minimum of three years.	Section 2.3.6.1 states, "Revegetation of the Project Area would be subject to agency monitoring and inspection (at agency discretion) to ensure adequate revegetation establishment. Based on these findings, the affected agency may require additional revegetation from Garkane if agency revegetation objectives are not adequately met. Agencies would provide revegetation objectives to Garkane prior to project initiation."	None
04-13	Monitoring: As the State's wildlife management agency, UDWR is expressly interested in all forms of data collected for aquatic and terrestrial wildlife within Utah. Information gathered from this project could be used to more accurately assess wildlife population trends in the area. UDWR requests copies of all wildlife or habitat survey results and protocols that are related to this project.	Copies of all wildlife or habitat survey results and protocols will be made available to UDWR.	None
04-14	Mitigation: UDWR strongly encourages the USFS to require off-site compensatory mitigation for unavoidable surface impacts on projects that are expected to have long-term impacts to crucial wildlife habitats. Mitigation alternatives could include rangeland and habitat restoration, noxious weed control, prescribed fire, or compensatory mitigation arrangements which are likely to improve or protect important wildlife habitats. Mitigation of any actions could be coordinated cooperatively within the framework of the Utah Partners for Conservation Development (UPCD), which includes partnerships with UDWR, Bureau of Land Management (BLM), U.S. Forest Service, Utah School and Institutional Trust Lands Administration, Natural Resources Conservation Service, and other governmental entities. The UPCD has identified high priority areas in need of restoration in habitats across the state of Utah.	Reasonable mitigations for unavoidable wildlife impacts were included, which were agreed upon by the cooperating agencies and Garkane. UPCD frameworks were considered in the mitigation development process. Resource Protection Measures and Recommended Best Management Practices and Mitigations for Special Status Species are listed in Section 2.3.6 and Appendix A of the DEIS. If the Biological Opinion requires additional mitigation measures, they will be implemented as requirements in the Record of Decision.	None
04-15	Paleontological Resources: The PFYC (Potential Fossil Yield Classification) for the Sevier River Formation should be upgraded to Class 4. The report states that "although not much is known locallty about the paleontology of this rock unit, its age and composition suggest that it does have the potential to contain significant Neogene age fossils (BLM 2008b)", and the PFYC has been rated as Class 3 indicating unknown potential. However, recent discoveries that include new vertebrate taxa demonstrate that the potential for the discovery of vertebrate fossils is significant, and the office of the State Paleontologist therefore recommends that the PFYC for the Sevier River Formation be upgraded to Class 4 - High, indicating a high occurance of significant fossils. The following link contains an article that includes a discussion about the paleontological significance of this formation:	The techniques and methodologies used in this analysis consider the best available science. Review of Kirkland, et al. (2006) confirms that there have been recent discoveries of richly preserved Miocene fauna within the Sevier River Formation in Utah. Therefore, the commenter's recommendation to elevate the classification of this formation from PFYC 3 (unknown [fossil] potential) to PFYC 4 (high potential) is accepted. The paleontological resources section was revised accordingly to reflect this change. Information from the source provided was reviewed and referenced as appropriate in Section 3.2, and the source was added to the References Cited. Table 3.2-1 was revised to reflect the Class change. Text in Sections 4.2.2.1 and 4.2.2.2 was updated as appropriate to reflect the acreage. Tables 4.2-1 and 4.2-2 were updated to change the acreages in Classes 3 and 4.	Page 3-3: Figure 3.2-1 has been revised and is included on page 47 of the FEIS. Page 3-7: **Sevier River Formation (Ts)** The Sevier River Formation is Pliocene to possibly Miocene in age and is characterized by poorly consolidated coarse to fine-grained clastic fluvial deposits locally containing airfall tuffs and lacustrine rocks (Eppinger et al. 1990). This formation is believed to have at least in part been formed by alluvium washed in by the Sevier River and deposited as valley fill (Ives 1947). A review of Kirkland, et al. (2006) indicates that there have been recent discoveries of richly preserved Miocene fauna within the Sevier River Formation in Utah. ~~A comprehensive literature search did not reveal any~~

ID #	COMMENT	AGENCY RESPONSE TO COMMENT	REQUIRED DOCUMENT CHANGE
	http://www.nature.nps.gov/GEOLOGY/paleontology/pub/fossil_conference_7/10%20Kirkland%20et%20al.pdf		~~paleontological discoveries within this formation. Although not much is locally known about the paleontology of this rock unit, its age and composition suggest that it does have the potential to contain significant Neogene age fossils (BLM 2008b).~~ Page 3-10, Table 3.2-1, fifth column, third line after heading row, change to Class 4. Page 4-5: First paragraph under 4.2.2.2. Alternative A: Proposed Action … ~~21.01~~ 0 acres of Class 3 units, ~~134.82~~ 164.28 acres of Class 4 units… Second paragraph under heading. Under Alternative A, short- and long-term ground disturbances within and outside of the rights-of-way would occur in ~~7.64~~ 7.24 acres of Class 1 units, ~~100.03~~ 99.44 acres of Class 2 units, ~~23.73~~ 0 acres of Class 3 units, ~~63.64~~ 82.56 acres of Class 4 units, and ~~54.44~~ 53.15 acres of Class 5 units. A total of ~~141.81~~ 135.70 short- and long-term disturbance acres would be within paleontologically sensitive units (PFYC Classes 3, 4, and 5). Page 4-6: First sentence of first full paragraph In total, ~~249.48~~ 242.39 acres of disturbance is anticipated under Alternative A. First paragraph under 4.2.2.3. Alternative B: Parallel Existing 69 kV Route …~~48.94~~ 0 acres of Class 3 units, ~~73.99~~ 122.93 acres of Class 4 units… Second paragraph under heading. Under this alternative, short- and long-term ground disturbances associated with construction would occur in ~~29.08~~ 29.24 acres of Class 1 units, ~~116.20~~ 116.83 acres of Class 2 units, ~~24.01~~ 0 acres of Class 3 units, ~~24.10~~ 48.52 acres of Class 4 units, and ~~23.47~~ 23.60 acres of Class 5 units. A total of ~~71.58~~ 72.13 acres associated with construction of the transmission line would be within paleontologically sensitive units (PFYC Classes 3, 4, and 5). Third paragraph, first sentence. In total, ~~216.86~~ 218.20 acres of disturbance is anticipated under Alternative B. First paragraph under 4.2.2.4. Alternative C: Cedar Fork Southern Route. …~~21.00~~ 0 acres of Class 3 units, ~~98.65~~ 119.65 acres of Class 4 units… Second paragraph under heading. Under this alternative, short- and long-term ground disturbances associated with construction would occur in ~~6.46~~ 6.47 acres of Class 1 units, ~~134.16~~ 134.54 acres of Class 2 units, ~~21.69~~ 0 acres of Class 3 units, ~~56.53~~ 76.43 acres of Class 4 units, and ~~71.05~~ 72.16 acres of Class 5 units. A total of ~~149.27~~ 148.59 short- and long-term disturbance acres would be within paleontologically sensitive units (PFYC Classes 3, 4 and 5). Page 4-7: First full paragraph, first sentence. In total, ~~289.89~~ 289.60 acres of disturbance is anticipated under Alternative C. Revised Tables 4.2-1 and 4.2-2 are included on pages 57 and 58 of the FEIS.

ID #	COMMENT	AGENCY RESPONSE TO COMMENT	REQUIRED DOCUMENT CHANGE
04-16	Air Quality: The draft EIS describes plans for land clearing and construction activities to build the transmission line over a significant number of miles. The draft EIS also identifies resource protection measures throughout the draft EIS. However, it appears this evaluation did not include air quality. Land clearing and construction activities are sources of fugitive dust, thus this project is subject to R307-205-5; Fugitive Dust, of the Utah Air Quality Rules. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Executive Secretary of the Air Quality Board, but steps need to be taken to minimize fugitive dust, such as watering and/or chemical stabilization, providing vegetative or synthetic cover or Windbreaks. A copy of the rules may be found at: www.rules.utah.gov/publicat/code/r307/r307.htm.	R307-205 establishes minimum work practices and emission standards for sources of fugitive emissions and fugitive dust for sources located in all areas in the state except those listed in section IX, Part H of the state implementation plan or located in a PM10 nonattainment or maintenance area. Project design in Chapter 2 and Resource Protection Measures (section 2.3.6) developed for this proposal were developed to meet the intent of the State's standards and include, but are not limited to, using the same ingress and egress to minimize surface disturbance, speed limitations, use of water for dust control, limiting road access in areas of highly erodible soils and other measures such as encouraging overland travel along the centerline route when no road is required, and timely revegetation as required. These measures were applied to minimize surface disturbance and fugitive dust. A fugitive dust management plan for the project is attached as Appendix D. It is unlikely that any effects to air quality would result in the exceedance of Utah air quality standards; thus modeling was not warranted.	Page 2-24: Addition to text in first bullet after heading. **2.3.6.7. Water** Water needed during construction would be limited to that needed for dust control (See Appendix D, Dust Management Plan). Appendix D is included on page 42 of the FEIS.
05-01	I own a home located in Section 10, Township 38 S, Range 5 W (Bryce Woodlands Estates). Reliable power is a priority to the wellbeing of the people (HUMAN BEINGS) in our area. The frequent blackouts we have been experiencing jeopardize human life, especially in extreme weather conditions. These studies have ZERO benefit, in fact they could pose more harm to our own well being. Not to mention the additional cost we as the members are going to have to pay. I would plead that you move forward with the transmission line immediately and forgo all studies for our own safety!	Please see response to Comment 03-01.	None
06-01	We are impressed with the organization and overall detail of the DEIS. However we do not believe that the environmental analysis accurately compares and contrasts the different environmental impacts among alternatives. This is particularly so when looking closer at presentation of impacts in alternative B (current alignments) with alternatives A or C. The impacts of using existing roads for example in alternative B is overestimated when compared to what is said to be lesser impacts from new roads needed for alternatives A or C.	The commenter does not provide specific examples of why they believe the analysis is inaccurate. While the commenter refers to inaccuracies in the analysis of impacts from new roads, they do not provide specific examples of the referenced overestimates or other data to support their comment. Thus, it is difficult to respond to the comment and we stand by our data and our analysis. However, we provide the following references to the impact analysis to demonstrate the adequacy of the impact analysis. Each of the action alternatives would involve disturbance through centerline access. Table 2.10-1 specifies: Alternative B would involve the least amount of disturbance associated with centerline access. Existing forest and BLM roads would be used under all action alternatives with only minor maintenance; there would be no additional disturbance with these existing roads. Sections 2.4 and 2.6 for Alternatives A and C respectively indicate that the access for the existing Rocky Mountain Power/Pacificorp 230 kV line would be improved and would result in additional maximum disturbance of 1.9 acres. The only new roads would be gravel access roads constructed between existing county roads and the proposed new substation sites, which would occur under all action alternatives; the variable would be the location of the substation site. The effects of the alternatives are most easily compared by looking at Table 2.10-7 – Summary of Environmental Effects of Proposed Action and Alternatives. The table clearly distinguishes that Alternative B has fewer or lower intensity impacts to certain resources, largely because Alternative B would have the least acreage of disturbance of the three action alternatives;	Page ES-2: First paragraph under Action Alternatives, insert before the last sentence: Under all action alternatives the proposed 138 kV transmission line must be completed and energized prior to removal of the existing 69 kV transmission line and rehabilitation of its right-of-way. While the Alternative B route would parallel the existing 69 kV transmission line right-of-way, there must be separation between the two in order to safely build and energize the new line prior to removal of the existing line. Page 2-5: Insert addition of beginning of first paragraph. Upon completion of the proposed 138 kV line, 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 right-of-way (including existing centerline access) would be rehabilitated. Insert as first sentence of first paragraph under heading. **2.2.3. Alternative B: Parallel Existing 69 kV Route** The Alternative B Route would generally parallel the existing 69 kV line right-of-way, but must be separated from the existing 69 kV line right-of-way for constructability and safety reason, in order to safely build and energize the line prior to removal of the existing line. Insert addition at the beginning of second paragraph. Upon completion of the proposed 138 kV line, the entire existing 69 kV line from approximately 1 mile east of the existing Tropic Substation to the Hatch

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		the length of the Alternative B route would be shorter than Alternatives A and C. Upon initial inspection, it may appear that Alternative B should involve less disturbance and fewer adverse impacts than Alternatives A and C because it follows the route of Garkane's existing 69 kV line. Section 2.5.1 states, "This alternative would require a new 100-foot right-of-way parallel to **but separated from** the existing 69 kV line right-of-way for constructability and safety reasons, in order to safely build and energize the line prior to removal of the existing line (emphasis added)." An important point is made here: Under *any* of the action alternatives the existing 69 kV line must remain energized while the new line is under construction. In the case of Alternative B, both the existing line and new line **cannot** occupy the existing right-of-way disturbance; for safety reasons they must be physically separated. Therefore, the new line requires a new right-of-way disturbance area and its own centerline access. Text additions alluding to this need for separation have been made in the Executive Summary under the Action Alternatives section and Section 2.2.3. Text added to Section 2.5.1 describes in greater detail the need for this separation. Sections 2.4.1.5, 2.5.1.5, and 2.6.1.5 all indicate that the portion of the 69 kV line would be removed after the proposed 138 kV line is operational. Text additions have been made to Sections 2.2.2, 2.2.3 and 2.2.4 to emphasize that removal of a portion of the existing 69 kV line would occur upon completion of construction of the proposed 138 kV line.	Mountain Substation would be removed (approximately 21.57 miles) and the right-of-way (including existing centerline access) would be rehabilitated. Page 2-6: Insert addition at the beginning of the first paragraph. <u>Upon completion of the proposed 138 kV line,</u> 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 right-of-way (including existing centerline access) would be rehabilitated. Page 2-30: First paragraph under heading. **2.5.1 Project Elements** **Figure 2.5-1** depicts the Parallel Existing 69 kV Route Alternative and other project elements. The alignment and project elements are discussed below. This route would have no surface impacts on the GSENM. This alternative would require a new 100-foot right-of-way parallel to but separated from the existing 69 kV line right-of-way for constructability and safety reasons, in order to safely build and energize the line prior to removal of the existing line. <u>The minimum separation distance between the existing 69 kV line and the proposed 138 kV line was calculated based on Bulletin 1724E-200, Design Manual for High Voltage Transmission Lines (USDA 2009). Under Alternative B the proposed 138 kV line is designed by be separated from the existing 69 kV line by a minimum of 100 feet (pers. comm. Between T. Hale and B. Shakespear June 21, 2010).</u>
06-02	In scoping we commented that alternative A would involve significant permanent losses of potential wilderness area on the Dixie National Forest. This is what the EIS is calling unroaded/undeveloped area inventory. The concern is acute for Red Canyon South potential wilderness area. The EIS accounts for only the losses along the immediate footprint inside the potential wilderness area while not accurately disclosing that there will be much more extensive additional permanent loss of potential wilderness area by splitting one potential wilderness into two smaller halves. The smaller half would not qualify on its own, if one is to use the Dixie's current unroaded/undeveloped area boundaries. The DEIS even indicates on page 4-123 and elsewhere that the impacts of splitting such potential wilderness area in half would be equivalent to not splitting an IRA in half.	In the Affected Environment section of the DEIS, the Distinctive Land Areas are defined as NPS-recommended wilderness areas; USFS inventoried roadless areas (IRAs), unroaded and undeveloped areas, research natural areas and botanical areas; BLM wilderness study areas (WSAs), natural areas, non-WSA lands with wilderness characteristics and primitive zones, along with national historic landmarks. These are the distinctive land areas that are included in the Affected Environment. Unroaded and undeveloped areas are areas that the USFS inventoried as part of the DNF planning process to identify lands with wilderness characteristics. These areas are often referred to as Areas of Wilderness Potential (AWP). The NEPA process requires an analysis and disclosure of the effects of the Proposed Action and alternatives on these areas. Regarding the Red Canyon South potential wilderness area, the DEIS analyzes the effects of the Proposed Action and alternatives on the Red Canyon South unroaded/undeveloped area as defined by the USFS through their inventory process. This is the area the USFS has determined has wilderness characteristics, and therefore is the Affected Environment analyzed in the DEIS. The impact analysis, under Alternative A, correctly analyzes and discloses that issuance of a right-of-way and construction of the transmission line through the Red Canyon South unroaded/undeveloped area would separate 238.95 acres (in two locations) from the southern portion of the unroaded/undeveloped area. The remaining portion of the area north of the powerline would still be large enough for consideration of its wilderness values. The commentor is correct, however, that the two small pieces (one piece would be 29.71 acres, the other 209.24 acres, totaling 238.95 acres) will not be eligible for future consideration as wilderness.	None

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		The comment refers to significant permanent losses of potential wilderness areas on the DNF also referred to as “unroaded/ undeveloped area inventory”. For clarification it is assumed that the comment refers to those areas labeled in the EIS as unroaded and undeveloped, which are also referred to as Areas of Wilderness Potential (AWP). An inventory of AWP was conducted jointly with the Fishlake National Forest for their Forest Plan Revisions that are currently underway, and was based on direction in the Intermountain Region Planning Desk Guide: A Protocol for Identifying and Evaluating Areas for Potential Wilderness” (cited in USFS 2009a). AWP identified according to this protocol only exclude classified Forest-system roads, and thus still contained numerous “constructed” (unclassified) roads and trails, as well as timbered areas, powerlines, and other infrastructure. After the inventory of AWP the Fishlake and Dixie National Forests began an evaluation of the suitability of each AWP for wilderness recommendation. The purpose of this evaluation was to determine which areas met the definition of wilderness found in the 1964 Wilderness Act, and as such “meet the criteria for wilderness suitability and possibly recommendation to Congress for wilderness study or designation.” (Forest Service Handbook 1909.12: Chapter 70). Three areas inventoried as unroaded undeveloped or AWP are traversed by various alternatives of this project. They are Henderson Canyon –Table Cliffs, Shakespear Point, and Red canyon South. Each of these areas were analyzed in the EIS for natural integrity, apparent naturalness, solitude and primitive recreation, and challenging experience. There is no policy, law, or directive guiding the management of AWP that lie outside of IRAs or wilderness areas. Currently, the only guidance for these areas is general forest or management area direction. It is the intent of the DNF to manage these AWP for multiple resource benefits while maintaining their undeveloped character to the extent possible. The Preferred Alternative was partially selected because this route follows the area designated as a “utility window area ”on the Final Management Area Map in the DNF LRMP. The portion of the comment comparing the “splitting” of the unroaded/undeveloped areas to “splitting” the IRA is not clear. The analysis clearly points out that the boundary of the unroaded/undeveloped area is very similar to the boundary of the IRA for Red Canyon South, and therefore the impacts of the Proposed Action and alternatives would be similar, with some exceptions. The analysis clearly discloses what those exceptions are, based on the differences in the two area boundaries.	
06-03	We believe the wildlife impacts analysis is not consistently applied across alternatives, giving the appearance that alternative B (stay in current developed corridors with existing roads) is more damaging than any alternative to build additional corridors in unroaded/undeveloped potential wilderness areas.	The alternatives analysis in the DEIS was based on common impact indicators, which were applied to each alternative in the same manner as outlined in Section 4.7.1. From the analysis, Alternative B had similar impacts to the other two alternatives, as demonstrated in Table 4.7-14. Please also see response to Comment 06-01.	None
06-04	We maintain our position from earlier comments (enclosed) that alternative B should be chosen in the ROD, and that it would result in lesser environmental impacts than the other actions proposed. Short of that, alternative C is preferable to A, due to the lesser impacts to potential wilderness area involved.	Comment noted. Please see response to Comments 01-01 and 06-01.	None
06-05	Attachment: UEC Scoping Comment Letter	No response required.	None

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07-01	The USGS has reviewed the Draft Environmental Impact Statement for the Tropic to Hatch 138 kv Transmission Line and the Draft Grand Staircase Escalante National Monument Management Plan. We do not have substantive comments at this time.	No response required.	None
08-01	While completing the NEPA process for the project Garkane has continued to track the demand for electrical power and our capacity to supply sufficient power. In February 2010 Garkane completed a comprehensive study of our entire system to identify required system improvements within a 5 to 10 year planning horizon for the development of a Construction Work Plan. We have submitted portions of the plan to provide updated information on the need for the project.	This information has been added to Section 1.3, supporting the purpose and need for the project.	Page 1-2: The following replaces the two paragraphs under the heading. **1.3. Need for Proposed Action** Growth in Garfield and Kane counties has resulted in a 66 percent increase in the electrical demand during the 5 years prior to 2008. Recent analysis of electrical use within Garkane's system indicates that while development of the private lands within Garkane's service area has slowed over the last two years with the downturn in the economy, the demand for electrical power has continued to grow. Garkane's base and peak loads continue to grow at approximately 5 percent annually, with the system experiencing an all time peak load of near 40 megawatts in December 2009. In 2014 the peak load is projected to be 45 megawatts. (Garkane 2010) The existing 69 kV transmission line is the bottleneck in Garkane's transmission system. Currently, a 138 kV transmission line supplies electricity from the Glen Canyon Dam (near Page, Arizona) to 1 mile east of the Tropic Substation; however, only a 69 kV transmission line provides connection between 1 mile east of the Tropic Substation and the Hatch Substation. The 69 kV transmission line is Garkane's main electrical supply to the area west of Tropic. The existing 69 kV transmission line cannot be modified to carry higher voltages due to physical limitations of the pole structures. Peak demands exceed the capacity of the existing 69 kV transmission line. Garkane has found the existing system insufficient to meet electrical demand without the operation of temporary diesel generators. The results of modeling show that under the peak of December 2009 the communities of Bryce, Hatch, Spry, Long Valley and Cedar Mountain experienced and will continue to experience insufficient electrical capacity and voltage to meet industry power quality requirements, even with 5 megawatts of diesel generators online (Garkane 2010). This has caused an overloading of the 69 kV transmission line and a decrease in the reliability of the electrical system, resulting in black outs, brown outs, and reduced levels of service. Poor power quality causes customers' electrical equipment to fail and makes restoring power after an outage more time consuming and difficult. When these conditions exist federal regulations require utilities to implement load shedding (rolling blackouts) procedures, which cut power to non-essential uses in order to restore power quality (Garkane 2010). Garkane's existing electrical delivery system to the Hatch area is insufficient to effectively meet the area's current and future electrical demand. Modeling indicates that replacement of the existing 69 kV transmission line with a 138 kV transmission line Garkane's system could sustain loads of 60 megawatts while maintaining sufficient power quality throughout the system.
08-02	As part of the study we modeled our existing transmission system using computer modeling software under various loading and scenarios. The results of the modeling showed that under the peak of December 2009 (40 MW) and expected 2014 peak (45 MW) the communities at Bryce, Hatch, Spry, Long Valley, and Cedar Mountain	This information has been added to Section 1.3, supporting the purpose and need for the project.	See text changes made in response to comment 08-01.

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	experienced, and will continue to experience insufficient electrical capacity and voltage to meet industry power quality requirements even with 5 MW of diesel generation online. It is clear that peak demands now exceed the capacity of the existing line and that the need for the proposed line is extreme, and urgent. Poor power quality causes customers electrical equipment to fail, increases outages and makes restoring power after an outage more time consuming and difficult. When these conditions exist federal regulations require utilities to implement load shedding (rolling blackouts) procedures which cut power to non-essential users in order to restore power quality.		
08-03	Based on our understanding of the project and the effected environment, it is our opinion that the Agency Preferred Alternative is the best of the range of alternatives identified. It utilizes existing utility corridors and planning windows to the greatest extent, minimizes disturbance to the habitat of sensitive, threatened, and endangered species, and keeps the new line out of the resource areas of Bryce Canyon National Park and Red Canyon which are highly valued and utilized by the public for their visual quality.	Comment noted. Please see response to Comment 01-01.	None
08-04	The permits authorizing the RMP 230 kV predate the Presidential Proclamation creating the GSENM. Garkane also holds similar permits for our existing Buckskin to Tropic 138 kV transmission line. These transmission facilities are valid existing rights as defined by the Monument Management Plan (MMP). Both transmission lines cross Primitive Zones, and it is clear that the portions of the GSENM containing these two transmission lines do not meet the criteria for Primitive Zone designation as defined in the MMP in Chapter 2, Pages 9 and 50. An amendment to the MMP zoning designation is currently needed to correct these MMP primitive zoning designation. Selection of the agency preferred alternative provides the BLM with the appropriate level NEPA documents to make a plan amendment for this portion of the existing RMP 230 kV line.	Section 1.3.2 of the DEIS states: "While this existing transmission line is a valid existing right and therefore can remain in place whether or not the plan is amended, any proposed future upgrades or modifications to this transmission line would be subject to plan decisions and such actions may be constrained by those decisions. This would avoid the need to amend the plan at a later time to consider any future proposals to upgrade or modify the transmission line." NEPA analysis is being conducted during this process to allow the decisionmaker to amend the GSENM Management Plan if needed and/or appropriate.	None
08-05	The area surrounding the RMP 230 kV is currently identified as VRM Class II in the MMP. However, "The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities should not attract attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of teh characteristic landscape." (BLM 1992) Given the form, line, color, and texture of the existing RMP 230 kV line the designation of a VRM Class II is inappropriate for the area surrounding the line. An amendment to the MMP is currently needed to correct the designation of the area as VRM Class II to Class III. The designation of the area the VRM-III is appropriate. Selection of the agency preferred alternative provides the BLM with the appropriate level NEPA documents to make the plan amendment for the area surrounding this portion of the RMP 230 kV.	Section 1.3.2 of the DEIS states: "a portion of the transmission line would occur in an area designated in the plan as a VRM Management Class II, and placement of such facilities would not be consistent with Class II objectives (Plan decision VRM-1)." This type of development is clearly not consistent with VRM Class II. This is one of the reasons the agencies have analyzed the proposed plan amendment in conjunction with the proposed project.	None

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08-06	The MMP states in regards to utility rights-of-way, "Monument managers are committed to working with nearby communities and other land management agencies to pursue management activities which cooperatively accomplish the objectives of each agency within the constraints of Federal Law." "Land-1 -- The BLM will work with local communities and utility providers to identify short and long term community needs for infrastructure which could affect Monument lands and resources." "Land-2 -- Community Projects which require public lands access or use will be subject to necessary project level NEPA analysis." (MMP Chapter 2, Page 49) The proposed project will serve local communities in and around the GSENM, including GSENM facilities.	Text citing these provisions of the GSENM Management Plan is provided in Section 3.10.2.2 under the headings of Bureau of Land Management and Grand Staircase-Escalante National Monument. Text in Section 4.10.2.2 under the heading of Grand Staircase-Escalante National Monument has been augmented to better analyze the consistency of the alternatives with the provisions of the GSENM Management Plan.	Page 4-116: Insert text at the end of the second paragraph under heading. **Grand Staircase-Escalante National Monument.** The proposed 138 kV transmission line would meet the current and future electrical needs for the Hatch, Utah area, which would be a local, not regional need; meeting the intent of Plan decision Land-7. The only alternative available would be Alternative B, which would place the 138 kV transmission line in BRCA. The transmission line would not be consistent with the NPS Mission or Management Policies (2006; Section 4.102.3).
08-07	Failure to permit the project will significantly harm the citizens of the local communities' access to electrical power for the foreseeable future.	Section 4.15.2.5 has been augmented with information provided by Garkane indicating that should the transmission line not be constructed, under certain circumstances Garkane may be required to institute rolling blackouts.	Page 4-189: Insert text at the end of the second paragraph under the heading. **4.15.2.5. Alternative D: No Action** When poor power quality causes customers electrical equipment to fail, increases outages and makes restoring power after an outage more time consuming and difficult, federal regulations require utilities to implement load shedding (rolling blackouts) procedures which cut power to non-essential users in order to restore power quality (Garkane 2010).
08-08	While it remains Garkane's opinion that the designation of the area surrounding the RMP 230 kV transmission line as a Primitive Zone does not meet the criteria for the designation defined by the MMP. The MMP does state "In the Primitive Zone, utility right-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." (MMP Chapter 2, Page 50, emphasis add) The proposed line will serve the local need and is not a regional utility line. The results of our recent transmission system study again demonstrate the need is extreme and urgent. This leaves only the criteria concerning the availability of another alternative outside the Primitive Zone. The topography of the land, and the size and scope of GSENM Primitive Zone and BRCA preclude any possible route from Tropic to Hatch that will not cross the GSENM Primitive Zone or BRCA administered lands. Alternative B was developed and studied to determine the possibility of a buildable, legally defendable alternative through BRAC. Based on the results of the analysis detailed on Page 4-117 of the DEIS, National Park Service Management Polices preclude BRAC from issuing a utility right-of-way for the proposed project leaving no other alternative outside the GSENM Primitive Zone.	Please see responses to Comments 08-06 and 08-09.	None
08-09	The MMP and the National Park Service Management Polices both contain similar and in this case competing statements to the effect "where other alternative are not available" utility rights of way may be issued. (MMP Chapter 2, Page 50) As such it is our contention that the route that avoids the resources the citizens of the nation value most should be selected. A simple and honest test of resource value is what people spend their time and money to see. Both BRCA and GSENM have highly valued resources areas; however an honest	The mission of the NPS, as established in the 1916 Organic Act, is, "to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." Information on the NPS mission was added to Section 3.10.2.2. Section 4.10.2.3 states that the impacts from Alternatives A and C, "…would constitute	Page 3-99: Insert text under heading. **National Park Service** The 1916 Organic Act states that the mission of the National Park Service is, "…to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and

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	analysis shows that the area within the GSENM that will be impacted by the selection of the agency preferred alternative is not a highly valued resource area.	a long-term major and unacceptable impact to park resources." A long-term major unacceptable impact to park resources would not be consistent with the mission of the National Park Service to leave the resources "…unimpaired for the enjoyment of future generations." Please also see text revisions resulting from comment 08-06.The Preferred Alternative is consistent with the relevant objectives of the GSENM Management Plan and provides a practicable alternative to disturbing BRCA resources in such a way that is not consistent with the mission of the NPS. A determination of the consistency of the project with the purposes of the Presidential Proclamation establishing GSENM will be included in the Record of Decision.	by such means as will leave them unimpaired for the enjoyment of future generations." (NPS 1916)
08-10	Attachment: 1 - Chart of Glen Canyon Jem Meter Peak kW Attachment 2- Photos of project area	Thank you for providing this information.	None
09-01	Proceed with all diligence. Those that work with electric power distribution understand the challenge. Choose the route based on long term impacts. Ex. Is it possible that in the next 50 to 100 years a larger or higher voltage line may requiring greater distances of separation may be required. Can the right of way be used for other utilities or commercial uses in the future. An excessive scar today will require mitigation today, but that would be better than a second scar in the future. Our population is increasing. Pressure on ecology will also increase. Do it once. Do it right. And when practical do it fast so resources are not wasted.	Please see Section 1.2. Garkane has projected future electrical needs for the area and included those projections to meet those demands for the next 30 to 50 years in their proposal to construct a 138 kV transmission line. Future additional uses of the proposed right-of-way are speculative and cannot be addressed at this time.	None
10-01	I am a local electrician who works with the area businesses with these electrical problems. The most common complaint is low voltage. The loads In the area have been constantly rising. Which makes the need to increase the capacity of the transmission lines in the area. I encourage you to allow the construction of the Tropic-to-Hatch Transmission line, to better the lives of the people in the area and make the electrical requirements keep up with the needs of the residents and businesses.	Comment noted. Please see responses to Comments 08-01 and 08-02.	None
11-01	I support the approval of Garkane Energy's right of way. The construction of this transmission line is badly needed to ensure residents of rural Garfield and Kane County communities will have reliable electric service. Additionally any future growth will only be possible by continuing to upgrade Garkane Energy's infrastructure. Holding residents of these communities hostage to ultra environmental views is wrong and should not be given precedence over the needs of residents. Please record my support of the approval of right of way and construction of this project.	Comment noted. Please see responses to Comments 08-01 and 08-02.	None
12-01	I believe we need transmission ROW to provide the power need and supply electricity for future growth to sustain our productivity and way of life. Power is the blood supply for our economy. In these times it becomes ever more important that we keep this supply abundant. I would encourage you to permit the building of the newly required lines to keep pace with our needs.	Comment noted. Please see responses to Comments 08-01 and 08-02.	None

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13-01	The DEIS states (page 3-56) that the Forest Service (USFS) and Bureau of Land Management (BLM) will be considered "compliant with the Migratory Bird Treaty Act" (MBTA) if the agencies follow the direction provided in their respective migratory bird memoranda. This statement is problematic, as it is not possible to absolve individuals, companies, or agencies from MBTA liability even if they implement avian mortality avoidance or similar conservation measures. We realize that some birds may be killed during project construction even if all reasonable measures to protect them are used. We recommend, therefore, that the FEIS remove language stating that the agencies are compliant with the MBTA and instead state that the USFS and BLM are considered compliant with the direction and intent of Executive Order 13186 (Responsibilities of Federal Agencies to Protect Migratory Birds). The E.O. directs federal agencies to avoid or minimize adverse impacts on migratory bird resources when conducting agency actions and to restore and enhance the habitats of migratory birds. The DEIS describes numerous practices to avoid or minimize adverse impacts on migratory birds; therefore, the agencies are adhering to the E.O.	The referenced statement was removed from Section 3.7.2.1, Migratory Birds, as recommended. Text was added to Section 4.7.2.1, Migratory Birds, to indicate that all action alternatives would be compliant with the direction and intent of E.O. 13186.	Page 3-55 – 3-56: Delete text under heading beginning after (USFS 2007). ~~The USFS is considered compliant with the Migratory Bird Treaty Act if this direction is followed and habitats as well as populations of migratory birds are sustained over the long term.~~ Delete the second to the last sentence in the same paragraph. ~~The BLM is considered compliant with the Migratory Bird Treaty Act (through implementation of Executive Order 13186) if this direction is followed.~~ Page 4-59: Add text under heading. **4.7.2.1 Impacts Common to All Action Alternatives** All Action Alternatives would be compliant with the direction and intent of E.O. 13186, the Migratory Bird Treaty Act.
13-02	A national MOU was signed between the USFS and FWS in 2008 which, among other things, encourages the USFS to "pursue opportunities to enhance the composition, structure, and juxtaposition of migratory bird habitats in the project area." BLM's Instructional Memorandum provides similar direction to "promote the maintenance and improvement of habitat quantity and quality. The DEIS identifies (page 4-68) long-term impacts that the project will have to habitats important for many migratory bird species, including raptors and species of concern. We recommend the FEIS describe specific measures that are being or will be implemented to benefit the quantity and quality of specific habitats that will be impacted by this project.	Reasonable mitigations for unavoidable wildlife impacts were included in the DEIS, which were agreed upon by the cooperating agencies and Garkane, listed in Section 2.3.6 and Appendix A of the DEIS. Other specific habitat improvements that would benefit migratory bird populations are described in the cumulative effects section, Table 4.19-2.	None
13-03	We recommend selecting habitat types most impacted by the project across the entire project area (e.g., sagebrush, riparian/wetland, pinyon-juniper, and/or ponderosa pine) and collaborating with the other landowners and land management agencies to determine effective habitat improvement projects. Partnerships such as the Utah Partners for Conservation and Development may be useful to leveraging funding and increase the benefits to bird habitats.	Reasonable mitigations for unavoidable wildlife impacts were included in the DEIS, which were agreed upon by the cooperating agencies and Garkane, and listed in Section 2.3.6 and Appendix A of the DEIS. Other specific habitat improvements that will benefit migratory bird populations are described in the cumulative effects section, Table 4.19-2. The USFS and BLM are interested in pursuing partnerships, particularly to improve habitat conditions, and will explore the recommended partnership opportunity.	None
13-04	The term "Sensitive Raptors" is used thorughout the document and may confuse readers into thinking that the EIS is only concerned with a subset of raptors rather than all raptor species; however, the measures described in Appendix A under the "Sensitive Raptor" heading identify measures that can be taken to protect all raptor species, not just sensitive species. While the USFS and BLM have identified certain species of raptors as "sensitive species" because they may be considered more at-risk than other species, we recommend that all raptors receive the basic protective measures identified in the utah Field Office Guidelines for Raptor Protection	The raptors that could occur within the Project Area and are not designated sensitive are discussed in Wildlife, Section 3.7 and 4.7. Raptors designated sensitive are discussed in Special Status Species, Sections 3.8 and 4.8. The heading in Appendix A was changed to "Raptors;" this section includes the measures outlined in the Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances (Romin and Muck 2002). Additional measures to be applied specifically to sensitive species were placed in a separate section in Appendix A.	Page A-9: Delete text from heading. **~~Sensitive~~ Raptors** Page A-14 Add heading after third paragraph. **Sensitive Raptors**

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	from Human and Land Use Disturbances (Romin and Muck 2002). Raptor species identified as "sensitive" may receive additional protective measures, as described for example on page A-14 for burrowing owls.		
13-05	Page 2-22, Sec. 2.3.6, Resource Protection Measures, Wildlife and Sensitive Species -- We recommend a measure to preclude unauthorized motorized use within the right-of-way and on access roads following construction completion.	Section 2.3.2.2 Construction and Operation Standards for this project include direction that states, “Access routes solely for maintenance and operation of the transmission line would not be open to public travel. Administrative routes would be determined by the authorizing agencies.”	None
13-06	Page 2-22, Sec. 2.3.6.3, Resource Protection Measures, Wildlife and Sensitive Species -- To avoid "take" of migratory birds, including raptors, we recommend the following resource protection measures: -Ground-disturbing activities will be conducted outside the prime migratory bird breeding season (April 15-August 15) to avoid the take of active nests with eggs and young. If activities must be completed during the breeding season, land-clearing activities (e.g., vegetation removal, grubbing) will be conducted prior to the breeding season so that the habitat is less suitable for nesting. If activities must be completed during the breeding season and land-clearing cannot be completed prior to the nesting season, biological monitors will search for and locate any active nests. Activities at and near the nests that would result in take of birds will be avoided until the young have fledged. -Between January 1 and August 31, active raptor nests will be protected per the Utah Raptor Guidelines. Prior to construction, raptor surveys will be completed within 1 mile of the construction area to determine if nests are present. Particular consideration will be given to bald and golden eagle nests within one mile of the project footprint as loss of an eagle nest by removal, exclusion, or disturbance would require a permit under the Bald and Golden Eagle Protection Act. -Any site-specific modifications of the Raptor Guidelines' seasonal or spatial buffers will be made in coordination with the FWS and/or UDWR. -A one-half mile buffer will be provided to protect bald eagle winter roost sites (approximately November - March). Any construction activities within the buffers will be made in coordination with the FWS and/or UDWR.	Section 4.7.2.1, Migratory Birds, Indicator 3 states, "Buffers and methods for implementation are listed in Romin and Muck (2002) and are as follows: 1. Determine appropriate species-specific spatial and seasonal buffer zones. 2. Follow recommendations to avoid and/or minimize impacts at progressive points during the nesting chronology and within the spatial buffer. These include specific activities (e.g., recreational activity, industrial disturbance) that are or are not allowed at times such as courtship, incubation and brooding, and post fledgling dependency and where within the buffer zone the activities may be allowed (0, half, or full buffer)." The dates specified in the comment are contained in Romin and Muck (2002). Early consultation with the USFWS was initiated in April 2008. The USFS confirmed the appropriate species list with the USFWS at that time. The project design and appropriate Resource Protection Measures and timing limitations are reasonable to avoid intentional take and would be in compliance with the direction and meet the intent of the MBTA protocols and E.O. 13186.	None
13-07	Page 3-56, Sec. 3.7.2.1, Migratory Birds (line 8) - Delete "most" from the sentence "Most raptors are protected under the Migratory Bird Treaty Act…"	The word "most" was deleted from the referenced sentence and similar language was reviewed to assure consistency document-wide.	Page 3-56, 8th Line: Revise text as follows. ~~Most r~~Raptors are protected under the Migratory Bird Treaty Act, and bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) have additional protection from the Bald and Golden Eagle Protection Act of 1940, as amended. The Bald and Golden Eagle Protection Act prohibits the taking, possession, and commerce of individual birds. Although the Bald and Golden Eagle Protection Act was modeled from the Migratory Bird Treaty Act, its civil and criminal penalties are more severe.
13-08	Page 3-56, Sec. 3.7.2.1, Migratory Birds (3rd paragraph) - The Birds of Conservation Concern list was updated in 2008 and any changes should be incorporated into the FEIS.	The BCC list that was updated in 2008 was reviewed. The text preceding Table 3.7-2 and the sources for the table were revised, and the reference for the source in the References Cited was updated as well. No additional species were identified.	Page 3-56, third paragraph, third line, second cite. Correct cite as follows. (USFWS 200~~2~~8)

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			Page 3-59, first table footnote: Add text at end of footnote. USFWS 2008a
13-09	Page 3-67, Table 3.8-3, Ute ladies'-tresses -- "No known occurrences" is insufficient for determining absence of this species, as many areas have never been surveyed. We recommend surveys be conducted during the species' flowering season if you determine that suitable habitat exists in the project area. More information on habitat suitability will be needed for the Section 7 Endangered Species Act consultation.	The language (Table 3.8-3) regarding Ute ladies' tresses was modified to be consistent with that in the Biological Assessment. In 2008, Transcon Environmental performed detailed pedestrian surveys along the alternative routes of the project and no Ute ladies tresses were reported.	Page 3-66. Table 3.8-3, ninth line, Ute ladies' tresses. Revise text as follows. NO—No occurrences known. This species ~~prefers stable wetland and wet, seepy areas within historical floodplains of major rivers or near freshwater lakes or springs~~ inhabits intermontane valleys and is found on silty loam alluvial soils associated with wetlands or floodplains of perennial streams. In 2008, Transcon Environmental performed detailed pedestrian surveys along the alternative routes of the project and no Ute ladies' tresses were reported. Based on conversation with federal botanists, this plan is not known to occur within the project area. Closest occurrence is along Henrieville Creek, about 5 miles northeast of Henrieville and about 7 miles east of the Project Area.
13-10	Page 3-67, Table 3.8-3 -- Southern leatherside chub is a State sensitive species (and therefore also a BLM sensitive species) and should be included in this table. Because it is present in the Sevier River, a more complete description of the affected environment relative to this species is warranted in section 3.8.2.	The southern leatherside chub is a State sensitive species, a BLM sensitive species, a Forest Service regional sensitive species, and a DNF Management Indicator Species. Baseline information on southern leatherside chub was added in Section 3.8.2.	See revision to Table 3.8-3 on page 51 of the FEIS. Page 3-79, Add before Pygmy Rabbit: **3.8.2.3 Southern Leatherside Chub** The southern leatherside chub is a small desert fish endemic to streams in the southern and eastern Bonneville Basin. Southern leatherside chub was formerly known as leatherside chub, which was split into two unique species, the northern and southern leatherside chub (the following is taken from UDWR 2010). Southern leatherside chub require flowing water and do not persist in lakes or reservoirs. Occupied streams have a high variability of stream flow, annual precipitation, gradient, elevation, conductivity, and pH. Adult and juveniles utilize the main channel of streams more often than off-channel habitats, although the presence of brown trout may shift habitat use. Southern leatherside chub occur in streams with a broad range of temperatures and have habitat requirements of healthy riparian vegetation and intact streambanks. Southern leatherside chub have been documented in six 4th-level HUCs in the Sevier River drainage within the following streams since 1994: Threemile Creek, Bear Creek, Panguitch Creek, Butler Creek, Mammoth Creek, and Asay Creek, the mainstem of the upper Sevier River, the East Fork Sevier River, Clay Creek, and Otter Creek (UDWR 2010). Southern leatherside chub were not documented during surveys in 2004 at the East Fork Sevier River and tributaries, including Kanab Creek near Tropic Reservoir (UDWR 2004). Southern leatherside chub were documented on the East Fork Sevier River at three stations in John's Valley in 2007 (UDWR 2007) and at four stations in Kingston Canyon (north of the Project Area) in 2009 (UDWR 2009a). In the Sevier River mainstem north of Hatch (Hatch Restoration Area), southern leatherside chub have been documented in 2006, 2007, and 2008 (UDWR 2008a).
13-11	Page 3-71, Table 3.8-3, Boreal Toad -- "No known occurrences" is insufficient to determine absense of this species. There are many areas where surveys have never been conducted for boreal toads, and their presence simply is not known. We recommend surveys be conducted in wetland, stream, and spring habitats, in coordination with the Utah Division of Wildlife Resources (UDWR.)	Further baseline information was obtained for boreal toad as it was added to the Regional Forester's Sensitive species list, including UDWR surveys. This information was added and boreal toad is now classified as potentially (although unlikely) occurring in the Project Area. In 2008, Transcon Environmental performed detailed pedestrian surveys along the alternative routes of the project and no boreal toads were reported.	See revision to Table 3.8-3 on page 53 of the FEIS. Page 3-83: Insert after 3.8.2.15. Ferruginous Hawk. **Boreal Toad** The boreal toad (subspecies of the western toad) within Utah and in the Project Area is not part of the Southern Rocky Mountain DPS (Distinct Population Segment) that was Candidate for Listing until 2005. Western

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			toads are found in a variety of habitats such as desert springs and streams, meadows and woodlands, and in and around ponds, lakes, reservoirs, and slow-moving rivers and streams. Breeding areas are typically shallow water areas at the edges of ponds, or lakes, stream or river edges with slow-moving water, or other flooded or ponded areas (Keinath and McGee 2005). After breeding, western toads move to more terrestrial habitats and eventually to hibernacula that may be a substantial distance from the breeding site (up to 2.5 km, but usually much less; Keinath and McGee 2005). Occupied wetlands in Utah are surrounded by a variety of upland vegetation communities, including sagebrush and grassland, pinyon-juniper, mountain shrubs, and coniferous forest. Extensive observations of upland and winter habitat use in Utah have not been completed. However, toads have been observed using small mammal burrows in drier upland areas. Breeding habitats in Utah include low velocity, low gradient streams, off channel marshes, beaver ponds, small lakes, reservoirs, stock ponds, wet meadows, seeps, and associated woodlands. Hibernacula in Utah have not been described. As of 2005, only one hibernaculum was discovered in the Paunsaugunt Plateau. UDWR Inventories of boreal toads in southern Utah from 1994 to 1998 reported toads within the Dixie National Forest from seven beaver dam complexes within the East Fork Sevier River, Left Fork Kanab Creek, and Tropic Reservoir (UDWR 2000). In recent years, however, breeding activity in this area appears to be limited to only a few beaver ponds upstream from the Mill Creek confluence and along the Left Fork of Upper Kanab Creek (M. Golden, Dixie National Forest fish biologist, pers comm. 22 March 2010). No boreal toads were found during surveys of the Project Area (Transcon 2008c). Page 4-79: Insert after Table 4.8-2. ***Aquatic Species.*** Impacts to special status aquatic species (southern leatherside chub and boreal toad) are discussed here because they would not differ among the Action Alternatives. General impacts to aquatic habitat can be found in **Section 4.7**. **Indicator (6): Crossings in aquatic habitat**. The Sevier River would not be crossed under any of the Action Alternatives. In intermittent drainages where aquatic species may be downstream (i.e., East Fork Sevier River), aquatic species may be affected by sediment downstream from a crossing, after the crossing has been installed and removed. These impacts would be short-term and minor. *Boreal toad (S)*. Boreal toads may occur in the East Fork Sevier River, either within or downstream of the Project Area, therefore reproductive (aquatic) habitat for this species may be affected as described for southern leatherside chub. These impacts would be short-term and minor.
13-12	Page 3-76, Sec. 3.8.2.2, Mexican Spotted Owl (2nd sentence) - Nest sites for this species in Utah are typically not located in Douglas fir, ponderosa pine, or Gambel's oak, but are found in steep to vertical rock cliff areas.	This sentence was removed from Section 3.8.2.2, Mexican spotted owl. The remainder of the section emphasizes that in southern Utah, spotted owls are found mainly in canyons.	Page 3-76: Delete third full sentence in paragraph under heading. **3.8.2.2 Mexican Spotted Owl** The Mexican spotted owl is a large owl that typically roosts and nests in shady, mature forests but in southern Utah prefers the cracks of deep slot canyons (USFWS 1995). In Utah, breeding spotted owls typically utilize deep, steep-walled canyons that contain mature coniferous or deciduous trees within the canyon bottom. ~~Nest sites are generally found in Douglas fir~~

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			~~(*Pseudotsuga menziesii*) trees and, to a lesser extent, ponderosa pine or Gambel's oak (*Quercus gambelii*).~~
13-13	Page 4-69, Sec. 4.7.2.2, Removal of 69 kV Transmission Line - We recommend poles containing raptor nests be retained (without electrical line connections) as "alternative nest structures" unless other resource concerns (e.g., Greater sage-grouse habitat) exist that outweight the potential benefit to raptors.	The USFS and BLM determined that potential impacts to greater sage-grouse from raptor predation outweigh the potential benefits of retaining pole structures for nest sites. In areas through Red Canyon the benefits to recreation and visual resources from pole removal were determined to outweigh the impacts to potential nest sites for raptors.	None
13-14	Page 4-72, Sec. 4.7.2.4, Removal of 69 kV Transmission Line - We recommend poles containing raptor nests be retained (without electrical line connections) as "alternative nest structures" unless other resource concerns (e.g., Greater sage-grouse habitat) exist that outweigh the potential benefit to raptors.	Please see response to Comment 13-13.	None
13-15	Page 4-76, Sec. 4.8.1, Indicator (1) - Acres of indirect habitat loss were apparently part of the analysis, but are not mentioned in any later section. It is unclear how they were quantified or used in the evaluation.	"Indirect" habitat loss impacts were removed from the description of Indicator (1) in Section 4.8.1 because they were actually discussed as part of Indicator (3) (Human Presence and Noise).	Page 4-76: Revise text in first paragraph after heading. **Indicator (1): Acres of Habitat Disturbed** Acres of direct disturbance of habitat ~~and indirect habitat loss~~ were compared to available habitat. Habitat disturbances were analyzed in the context of the Project Area. The acreage of habitat disturbance was divided by the total acreage of that habitat in the Project Area. Impacts were determined directly from calculated percentages.
13-16	Page 4-85, Table 4.8-3 - We recommend that all raptor species (not only "Sensitive Raptors") with the potential for nests in the project area be included in this table.	All raptor species with the potential to nest in the Project Area were listed in Table 3.7-2, including those with and without special status. A table of nesting periods for non-special status raptor species that were not mentioned in Chapter 4 has now been added to Chapter 4, to support the impact assessment for Indicators (3) and (5) under migratory birds.	Page 4-61: Insert table titled "Nesting Periods and Recommended Buffers for (Non-Sensitive) Raptors in the Project Area". The table can be found on page 58 of the FEIS.
14-01	As a member of the governing board, I have a financial stewardship as well as a fiduciary responsibility to the member-owners of the co-operative. As such it becomes my duty to plan, implement, and analyze the costs relating to energy transmission, distribution and use of that energy. As our membership continues to grow and their demand for energy increases our obligation to adequately respond with infrastructure capacity become significant. As we assess our duty of business - we desire to survive, not to maximize profits, but, simply to avoid loss.	Comment noted. Please see responses to Comments 08-01 and 08-02.	None
14-02	Our goal has always been to provide reliable, affordable electrical energy to our customers. Sustainable growth must have reliable, affordable energy supply!	Comment noted. Please see response to Comment 15-05.	None
15-01	The power line is needed for continued service in the area at Hatch, Cedar Mt., and the Long Valley area.	This statement is correct. The purpose of this proposed action is clearly stated in Section 1.2, to "convey sufficient electricity to meet the growing needs of Hatch and the surrounding area for the next 30 to 50 years."	None
15-02	The line will solve running diesel powered generators.	This is correct. Under Section 1.3, the DEIS notes that the existing system is insufficient to meet demand without the use of diesel generators. The proposed action and action alternatives were designed to alleviate the need for diesel generators and any associated air pollution. Section 4.20 discusses Green House Gas Emissions and Global Climate change. The DEIS discloses that Garkane Energy currently uses 10,500 gallons of fuel per 7 day period	None

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		operating for 15 hours/day. As growth in Hatch and Cedar Mountain continues, the frequency and duration of this use would increase.	
15-03	In case of outages in the southern area of Garkane Service area (Kanab, Fredonia, Colorado City) could be served from the Northern area.	This proposal is outside of the scope of this analysis and is not been considered as part of the proposed action.	None
15-04	The longer it takes the more expensive the product becomes.	As with all projects similar to this one, the cost of this required environmental analysis was considered in Garkane Energy's cost recovery calculations. It is true that construction materials and labor costs fluctuate and may be higher than originally anticipated.	None
15-05	Garkane Energy is planning for future growth and this power line is needed.	Section 1.3 of the DEIS states that the existing 69 kV electrical transmission system is operating at capacity and cannot be modified to carry higher voltages due to physical limitations of the pole structures. The purpose of this proposed action is clearly stated in Section 1.2, to "convey sufficient electricity to meet the growing needs of Hatch and the surrounding area for the next 30 to 50 years."	None
15-06	Please consider and move forward in making this project move forward.	Comment noted.	None
16-01	On February 16, 2010 the Scenic Byway 12 Committee passed a resolution in support of the Preferred Alternative identified in the Draft EIS and Draft Grand Staircase-Escalante National Monument Management Plan Amendment Document. Citing the fact that many experts have weighed in on the alternatives, the motion of support was passed by a majority of the Committee.	Comment noted. Please see response to Comment 01-01.	None
16-02	It is very important that non-reflective electrical cable be specified for the project. Non-reflective cable will ensure minimal disruption to view areas adjacent to Utah SR12. Garkane Energy must use non-reflective cable.	In Section 2.3.3.6, the DEIS states that "Non-reflective wire would be used within USFS High SIO areas, BLM VRM Management Class II areas, and in the GSENM as required by the Management Plan." This resource protection measure ensures that visual contrast would be minimized in highly scenic areas.	None
16-03	With respect to ground disturbance during and following construction it is vital that the strictest measures be implemented by Garkane and their contractors to ensure minimal ground disturbance during and following construction of the new powerline.	Resource protection measures for soils and vegetation are identified in Section 2.3.6.1 of the DEIS. These measures were agreed to by the lead and cooperating agencies to limit and mitigate ground disturbing activities associated with the proposed action.	None
17-01	The [Tropic to Hatch Transmission Line] (TH Line) proposal and Plan Amendment, which includes a proposal for a 100-foot new utility corridor in the Monument, and the agencies' preferred alternative which includes a 300-foot wide utility corridor to accommodate the TH Line, the existing PacifiCorp's line and possible future needs, do not conform to the Proclamation or to the MMP and thereby fail to comply with and the Federal Lands Policy and Management Act (FLPMA). Further, the Draft EIS fails to comply with the National Environmental Policy Act (NEPA).	Please see response to Comment 17-02, below.	None

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17-02	1. The Proposed and Preferred Alternative Corridors are Inconsistent with the Monument Management Plan (MMP) Land-7. The MMP Land-7 decision 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. The Draft EIS Figure 2.2-1 ("alternatives map") depicts three alternative corridors – A, B, and C. Alternatives A (the proposed action) and C (the preferred alternative) cross through the Monument in an area designated as "primitive" in the MMP and in a VRM Class II area (see MMP at 9 and 60). Alternative B parallels an existing power line, and does not cross through the Monument.	BLM acknowledges that the Proposed Action and Preferred Alternative routes are not in conformance with the GSENM Management Plan. The comment correctly points out that 43 CFR 1610.5-3(a) requires that BLM-approved actions conform to the approved land use plan, but fails to note that 43 CFR 1610.5-3(c) provides that if a proposed action is not in conformance with the approved land use plan but warrants further consideration the plan may be amended. BLM is considering a plan amendment for the proposed power transmission line. The decision on the proposed right-of-way is being considered along with establishment of a Passage Zone and change to the VRM class by amendment of the GSENM Management Plan. Nothing in the Proclamation for establishment of the GSENM prohibits consideration of plan amendments following the Record of Decision (ROD) for the plan.	None
17-03	The Draft EIS fails to include quantitative information that indicates that Alternative A and Alternative C are cases of "extreme need for local (not regional) needs." The Draft EIS merely states that the existing line is "overloaded" but does not disclose a quantitative analysis of the magnitude of the "overload." The Draft EIS fails to provide data to support the claim of extreme local need" for the proposed alignment in the Monument as depicted on the alternatives map for Alternatives A and C.	The applicant has clearly identified additional local power distribution needs. Section 1.3 of the DEIS states that the existing 69 kV electrical transmission system is operating at capacity and cannot be modified to carry higher voltages due to physical limitations of the pole structures. While completing the NEPA process for the project Garkane Energy has continued to track the demand for electrical power and their capacity to supply sufficient power. In February 2010 Garkane completed a comprehensive study of their entire system to identify required system improvements within a 5 to 10 year planning horizon for the development of a Construction Work Plan. They have submitted portions of the plan to provide updated information on the need for the project. Additional information on the applicant's purpose and need has been added to Section 1.3. Please also see responses to Comments 08-01 and 08-02.	None
17-04	According to the Draft EIS, there is no current or known future need requiring amendment to the MMP to include a 200-foot wide corridor for the existing Rocky Mountain Power/PacifiCorp right-of-way: *The existing Rocky Mountain Power/PacifiCorp right-of-way, averaging 130 feet wide, already forms the boundary of the non-WSA lands, so inclusion of this right-of-way in the Passage Zone would have no additional effect on the wilderness characteristics of Box Canyon. Development of the proposed right-of-way would occupy 100 feet of the Passage Zone adjacent to the Rocky Mountain Power/PacifiCorp right-of-way, further reducing the natural characteristics, primitive recreational setting, and size of Box Canyon non-WSA lands with wilderness characteristics by 20.48 acres. Currently, there are no proposals to develop the remaining 70 feet of the Passage Zone, so there would be no further effect on the wilderness characteristics of Box Canyon. However, in the future, if an additional utility line(s) is proposed in the Passage Zone, establishing a right-of-way and developing that right-of-way would further reduce the size and wilderness characteristics of the Box Canyon non-WSA lands with wilderness characteristics by as much as another 14.34 acres.* Draft EIS at 4-136 (emphasis added). This alternative adds, to the 100-foot corridor for the TH Line, a 200-foot corridor for the existing, interstate (not local) 230 kV Rocky Mountain Power/PacifiCorp transmission line, and speculative future needs. This additional 200-foot corridor through a primitive zone in the GSENM clearly does not comply with the MMP, as there is no	In Section 1.3.2 of the DEIS, the need for a proposed amendment to the current GSENM Management Plan was discussed. The existing Rocky Mountain Power/PacifiCorp 130-foot right-of-way for a 230 kV transmission line predates the establishment of the GSENM. This transmission line is in the Primitive Zone and partially in a VRM Management Class II area and is not consistent with objectives for managing either the Primitive Zone or VRM Management Class II area. One of the reasons that an amendment has been proposed is to correct this inconsistency by establishing a Passage Zone that would encompass the pre-existing Rocky Mountain Power/PacifiCorp right-of-way and the proposed Garkane right-of-way.	None

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	demonstrated (or even proposed) “extreme need for local (not regional) needs.”		
17-05	Alternatives A and C do not comply with the MMP as these alternatives are located in a primitive zone in the GSENM. Pursuant to MMP Land-7 decision, utility rights-of-way will not be permitted in the Primitive Zone, unless a very narrow exception is met, under which a plan amendment can be considered. A reasonable and feasible alternative exists, as depicted in Alternative B, which would comply with the MMP. Thus, the proposed TH Line of Alternative A and the expanded 300 foot corridor of Alternative C do not fall within the scope of this narrow exception, and a Plan Amendment would not comply with the MMP or FLPMA.	Please see response to Comment 17-02.	None
17-06	The proposed alternative does not comply with the MMP's VRM Class II designation - the 138 kV power line and possibly other large power lines that could be put in the proposed corridor are inconsistent with the basic elements of form, line, color and texture found in the natural landscape. As there are other reasonable alternatives for the proposed corridor that are not located in VRM Class II areas that would be more compatible with the MMP's VRM decisions, there is no compelling reason to amend the MMP to change the VRM to accommodate the proposed utility corridor.	Please see response to Comments 16-02 and 17-02.	None
17-07	The Draft EIS fails to include a range of reasonable alternatives. The Draft EIS includes alternatives limited to various transmission line locations. By looking only at transmission line locations, the agencies are looking at an unreasonably narrow set of options. The Draft EIS must not limit the range of alternatives to only those within the legal jurisdiction of the agencies. Thus, the Draft EIS must analyze an “energy conservation” alternative; such an alternative is reasonable and could potentially remove the need for greater transmission capacity and a new transmission line. In addition, the Draft EIS must consider an alternative that would incorporate alternative energy sources, such as solar panels on homes and community solar storage systems. The Draft EIS fails to comply with NEPA's requirement that a range of reasonable alternatives be considered and analyzed. The Draft EIS's analysis of essentially one alternative - a new transmission line in various locations - does not comply with NEPA's "range of alternatives" requirement. The Draft EIS must be supplemented to include analyses of other reasonable alternatives, such as energy conservation measures, and alternative energy sources.	CEQ requires the Federal agencies, in this case the USFS, BLM and NPS to: “rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated” CEQ and DOI NEPA guidance state that reasonable alternatives are technically and economically practical or feasible and meet the purpose and need of the proposed action. (40 CFR 1502.14 and 43 CFR 46.215). The suggested conservation alternative would not meet the agencies purpose and need to determine whether or not to grant the right-of-way or amend the GSENM Management Plan to designate a passage zone within GSENM. The suggested conservation alternative would be one possible outcome of the No Action alternative. Implementation of conservation measures is a course of action that would be beyond the agencies or Garkane’s control, thus this alternative could not be described or analyzed in any meaningful way; it would be an exercise in unfounded speculation. The courts have consistently found that “The range of alternatives considered 'need not extend beyond those [alternatives] reasonably related to the purposes of the project.” (Vermont Yankee Nuclear Power Plant v. Natural Resources Defense Council, 435 US 519, 551 (1978)).' While it is agency need that triggers the NEPA process, CEQ’s Memorandum “Guidance Regarding NEPA Regulations, 40 CFR Part 1500- Council on Environmental Quality (48 Fed. Reg. 34263, 1983) supports a finding that “there is, however, no need to disregard the applicant’s purposes and need and the common sense realities of a given situation in the development of alternatives.” CEQ guidance also states that the phrase "range of alternatives" refers to the alternatives discussed in environmental documents and includes all reasonable alternatives, which must be rigorously examined and evaluated, as	None

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		well as those other alternatives, which are eliminated from detailed study with a brief discussion of the reasons for eliminating them. (CEQ 40 Most Asked Questions). Subsequent to issuance of the DEIS, additional information was provided by Garkane and has been added to Section 1.3 (please refer to responses to Comments 08-01, 08-02, 17-03, and 17-04 on the purpose and need). Please also refer to Comment 17-07 on the need to address reasonable alternatives and the response to Comment 18-02 on new information in the alternatives considered but eliminated (Section 2.9).	
17-08	NEPA dictates that BLM take a "hard look" at the environmental consequences of a proposed action and the requisite environmental analysis "must be appropriate to the action in question." Metcalf v. Daley, 214 F.3d 1135, 1151 (9th Cir. 2000); Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 348 (1989). In order to take the "hard look" required by NEPA, BLM is required to assess impacts and effects that include: "ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative." 40 C.F.R. § 1508.8. (emphasis added).The Draft EIS fails to take a hard look at the purported need for the greater transmission capacity. This hard look must include a quantitative analysis of the current need, the estimated future needs, and the potential to meet the need from means other than a new transmission line.	Please refer to responses to Comments 08-01, 08-02, 17-03, 17-04, 17-07, and 18-02. The comment fails to identify any specific deficiencies in data, methods or analysis that BLM must correct. There is no need to analyze the suggested alternatives in detail as they fail the test of reasonable alternatives that meet the need for the proposed action.	None
17-09	BLM must scientifically and objectively evaluate the need for a new transmission line, and scientifically evaluate alternatives that include conservation measures, alternative energy sources, such as solar energy collectors for residential and business and local solar/wind energy storage and generation methods. NEPA requires BLM to gather information and complete independent research to gather the information, if the proponent fails to supply the information, in order to evaluate impacts from a range of reasonable alternatives. This evaluation must be disclosed to the public and the decision-maker in the Draft EIS. The analysis contained in the Draft EIS of impacts associated with various locations for the proposed transmission line falls short of NEPA's requirement.	Please refer to responses to Comments 08-01, 08-02, 17-03, and 17-07. The agencies cannot respond to the assertion that the analysis falls short of NEPA's requirements as it fails to identify any specific uncertainties or deficiencies that the agencies must correct.	None
17-10	Where there is scientific uncertainty, BLM cannot simply dismiss opposing scientific opinion and authority, but must provide a discussion of the support for its decision not to rely upon it. Accordingly, BLM must complete a conforming NEPA analysis that fully considers and responds to public comments, including opposing scientific opinion, and justifies any contradicting conclusions.	The agencies cannot respond to the comment because it fails to identify any specific uncertainties or deficiencies that the agencies must correct. All of commenter's comments are responded to in the FEIS.	None

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17-11	There are reasonable alternatives that exist that would not impact the "The Box" non-wilderness study area lands with wilderness characteristics. Compliance with FLPMA's UUD standard dictates that BLM not permit the proposed alternative in the GSENM. There can be little question that compliance with the UUD standard especially prohibits BLM from amending the GSENM MMP to provide for an additional 200-foot wide corridor for the existing Rocky Mountain Power/PacifiCorp power line. There is no demonstrated purpose or need for such corridor, Rocky Mountain Power/PacifiCorp has not applied for the corridor, and designating this additional corridor based on pure speculation by BLM that it might be requested at some point in the future violated FLPMA's UUD standard.	The comment suggests that because the agencies have ignored reasonable alternatives, they have not met FLPMA's mandate to prevent unnecessary or undue degradation. A permitted use is presumed not to be UUD because BLM has authorized the surface disturbance. Should BLM approve this right-of-way, the terms and conditions of the right-of-way will determine the extent of surface disturbance BLM will allow in accordance with policy and guidance. Should an applicant violate the terms and conditions, BLM will re-evaluate the situation and determine if UUD has occurred. Violations of the terms and conditions will be handled appropriately. As noted in the response to Comment 17-07, the suggested alternatives are not reasonable and need not be addressed in detail in the EIS. Establishment of a Passage Zone does not commit to approving any additional use of that zone. Additional NEPA analysis would be conducted on any future proposal for use of the Passage Zone and appropriate mitigation would be applied. Please also note the response to Comment 17-12.	None
17-12	FLPMA section 201 requires BLM to prepare and maintain "on a continuing basis an inventory of all public lands and their resources and other values. 43 U.S.C 1711 (a). If BLM amends the MMP, BLM must consider designating new wilderness study areas (WSAs) for all of the WIAs in the GSENM in the plan amendment process. The agency must conduct an analysis that considers the environmental impacts of managing all of the non-WSA lands with wilderness character identified in the Utah Wilderness Inventory (1999) and other areas proposed as wilderness and that are included in America's Redrock Wilderness Act that has been introduced in both the U.S. House of Representatives and the U.S. Senate as FLPMA 202 WSAs.	The scope of the plan amendment decision is to either establish or not establish a Passage Zone that would accommodate the proposed and existing rights-of-way. A plan amendment to analyze wilderness characteristics throughout the GSENM is beyond the scope of the proposed amendment. Impacts of the proposed right-of-way and Passage Zone on wilderness characteristics in any area determined by the BLM to possess such characteristics are analyzed in Section 4.11 of the DEIS. Impacts of authorizing the proposed right-of-way would affect less than 1 percent of the Box Canyon non-WSA lands with wilderness characteristics, thus when a future plan amendment of appropriate scope is undertaken, over 99 percent of the area would remain available to be considered for protection of wilderness characteristics. The BLM does not have the authority to designate new WSAs under the land use planning process. FLPMA Section 603 (43 U.S.C. §1782) requiring a one-time wilderness review has expired.	None
18-01	There are many important public lands affected by the action alternatives. EPA has specific concerns about resources potentially impacted in GSENM and BCNP. Alternative A and C cross through GSEMN in an area designated as "primitive" in the MMP and in a VRM Class II area (pg 1-10 DEIS). Alternative B crosses through BCNP. The GSENM's unique scenic assets are outstanding for many reasons, including the lack of large industrial developments that would mar the vistas and viewsheds. The GSENM landscape includes a wide array of scientific and historic resources. The inventory of visual resources was updated in recognition of these important assets after the creation of the GSENM. The proposed power corridor is in a VRM Class II area. The objective of this class is to retain the existing character of the landscape; consequently, the level of change to the characteristic landscape should be low. Furthermore, we understand that BLM has identified areas, including Box Canyon and the Blues Wilderness Study Area, with wilderness characteristics in portions of the GSENM where the proposed power line would be located. In order to ensure long-lasting protection for these sensitive and unique public lands, EPA recommends avoidance and the adoption of Best Management Practices in locations where the transmission corridor will be located.	In Section 1.3.2 of the DEIS, the need for a proposed amendment to the current GSENM Management Plan was discussed. Adjacent to the proposed Garkane right-of-way for Alternatives A and C on the Monument, there is an existing Rocky Mountain Power/PacifiCorp 130-foot right-of-way for a 230 kV transmission line that predates the establishment of the GSENM. This transmission line is in the Primitive Zone and partially in a VRM Management Class II area and is not consistent with objectives for managing either the Primitive Zone or VRM Management Class II area. This is one of the reasons that an amendment has been proposed. The proposed Garkane transmission line would be located adjacent to and parallel with this existing line, and as such would not present an appreciable change or contrast with the current characteristics of the landscape. Alternative B would cross through BRCA. The addition of a powerline right-of-way through NPS lands is not consistent with the NPS Organic Act (1916; see response to Comment 08-09) and the NPS's Management Policies (2006; See Section 1.6.3.1 of the DEIS). Visual, historic, and all natural resource concerns were analyzed across all alternatives.	None

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18-02	EPA recommends looking at additional alternatives that do not cross sensitive and unique public lands. One suggestion we have is to develop an alternative that uses corridors that run along Highway 89 from a northern energy source. If there are constraints that led USFS to screen out such alternatives from detailed analysis, the EIS should discuss those constraints.	See Section 2.9 of the DEIS. Other alternatives that avoided these lands and paralleled U.S. 89 were considered but eliminated from detailed analysis because they would increase the length of the proposed route by 60-90 miles (with associated impacts), would not reduce or resolve adverse environmental impacts, would affect more property owners, fall outside of the Garkane's service area to the north, and would increase both time and cost of the proposed project, thus not meeting either the purpose or need for the project.	None
18-03	The Final Environmental Impact Statement (FEIS) should also clarify why the DEIS does not analyze in detail the use of energy corridors identified in the Record of Decision for the "Designation of Energy Corridors on Federal Lands in Eleven Western States," signed in January of 2009 by the U.S. Department of Agriculture (ROD). The ROD's stated purpose is to "identify energy corridors to facilitate future electricity transmission and distribution facilities on Federal lands in the West to meet the region's increasing energy demands while mitigating potential harmful effects to the environment.	The West-wide Energy Corridor (WEC) PFEIS/ROD established corridors for future utilities and focused on regional and interstate applications. Segments of WEC corridors roughly follow U.S. 89 west then north from Glen Canyon Dam near Page, Arizona (Garkane's generating source). However, the analysis along U.S. 89 north of Kanab through Kane County and into southern Garfield county was not completed. Proximity of available corridors to the proposed project area precludes efficient routing, and would add many more miles and would subsequently increase associated impacts to resources and private land. The WEC ROD's stated purpose is to "identify energy corridors to facilitate future electricity transmission and distribution facilities on Federal lands in the West to meet the region's increasing energy demands."The proposed Garkane transmission line is needed to meet local, not regional, needs.	None
18-04	The DEIS explains that in the past 5 years, Garfield and Kane Counties have experienced a 66 percent increase in the demand for electricity, and that the existing 69 kV electrical transmission system from Tropic to Hatch is operating at its capacity and cannot be modified to carry higher voltages due to physical limitations (pg 4-230). In addition to considering additional energy supply to address this need, EPA recommends that the FEIS discuss how to measure or improve energy efficiency in the service area in order to reduce demand. We recommend that the FEIS incorporate energy conservation and electric demand management as part of all the alternatives analyzed.	Please see the response to Comment 17-07.	None
18-05	The DEIS does not fully discuss impacts of the proposed action on drinking water sources. EPA recommends additional information to be included on whether or not the transmission line will be constructed through any Drinking, Water Source Protection Zones designated by the State of Utah. Also, we suggest the FEIS identify whether there are local drinking water protection ordinances in place or plans to implement the Best Management Practices identified in the State's Drinking Water Source Protection Plan. We recommend contacting Kate Johnson at Utah Department of Environmental Quality, (801) 536-4206 (katej@utah.gov), for more information on this matter.	Public water sources including Drinking Water Source Protection Zones (DWSPZ), Surface water zones and transient non-community water systems were all considered during the alternative selection of routes. Neither of the two municipal systems (Hatch and Tropic) would be crossed under any of the alternatives. Alternatives A and C intersect transient non-community systems (establishments open to the public). Impacts to water resources are discussed in Chapter 4. If a new DWSPZ were to be delineated prior to construction or during the life of this project the Rule R309-600, Source Protection: Drinking Water Source Protection For Ground-Water Sources, Utah Administrative Code would apply to these sources. Text additions incorporating this information were made to Sections 3.4.2.5 and 4.4.2.2.	Page 3-33: Insert text after second paragraph under heading. **3.4.2.5. Water Rights** There are two municipal public water systems (PWSs) in the project area that are protected under Utah R309-600, Source Protection: Drinking Water Source Protection For Ground-Water Sources. The protected systems are the Hatch and Tropic municipal water systems. None of the Action Alternatives would cross either of the protection zones. In addition to the municipal PWSs there are several transient (non-community) PWSs in the project area. Transient PWSs are those which serve parks, campgrounds, restaurants, resorts or similar facilities. The Bryce Canyon Pines, Pines Highway Rest Area, and Bristlecone systems are along Route 12 and would be crossed by Segment A-1 (Personal Communication, Kate Johnson, Utah Department of Environmental Quality, Division of Drinking Water).

ID #	Comment	Agency Response to Comment	Required Document Change
			Page 4-32: Insert text under the heading and after the existing paragraph. **Water Rights.** Segment A-1 would cross drinking water source protection zones for three transient (non-community) public water systems serving Bryce Canyon Pines, Pines Highway Rest Area, and Bristlecone (Personal Communication, Kate Johnson, Utah Department of Environmental Quality, Division of Drinking Water June 16, 2010). The most likely sources of contamination to the wells protected under this program would be through use of chemicals on the surface or if holes dug for poles were to breach the drinking water aquifer. Use of the SPP and BMPs described in Section 4.4.2.1 above would reduce the risk of contamination through chemical use to a negligible level. A sampling of five well logs in the area showed static water levels between 18 and 32 feet, with all wells having at least six feet of clay (low permeability) above the static water level, which would effectively filter any sediment mobilized during construction. Therefore, any impact to protected drinking water sources from construction would be short-term and negligible along this segment.
18-06	Pursuant to EPA policy and guidance, EPA rates the environmental impact of the preferred action and the adequacy of the NEPA analysis. EPA has rated the DEIS as "EC-2" (Environmental Concerns - Insufficient Information). The "EC" rating indicates that the EPA review has identified environmental impacts associated with the preferred action that should be avoided in order to fully protect the environment.	No response required.	None
18-07	Attachment: U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements	No response required.	None
19-01	Our firm is interested in any civil engineering and land surveying services on this project. Could you refer me to a point of contact?	No response required regarding the NEPA analysis.	None

Appendix 2: Draft EIS Comment Letters