

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

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**Environmental Assessment**

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**DOI-BLM-UT-C010-2015-0040-EA**

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**August 18, 2015**

**Scatec Solar – Three Peaks Project  
Proposed 138-kV Power Transmission Line**

***Location:*** Northwest of Cedar City, Iron County, Utah

***Applicant/Address:*** Three Peaks Power, LLC

**c/o Scatec Solar North America, Inc.**

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**Scatec Solar – Three Peaks Project**  
**Proposed 138-kV Power Transmission Line**  
**Environmental Assessment**  
**(DOI-BLM-UT-C010-2015-0040-EA)**

**CHAPTER 1 INTRODUCTION AND NEED FOR THE PROPOSED ACTION**

**1.1 INTRODUCTION**

Three Peaks Power, LLC (TPP), is wholly owned and operated by Scatec Solar North America, Inc. The company has filed an SF-299 *Application for Transportation and Utility Systems and Facilities on Federal Lands* within the Bureau of Land Management (BLM)'s Cedar City Field Office (CCFO). TPP proposes to construct, operate, and maintain a 2.1 mile segment of new transmission line to support power transmission from the future Three Peaks Solar Power Plant to the existing Rocky Mountain Power/PacifiCorp Three Peaks Substation approximately 10 miles northwest of Cedar City (**Figure 1**). The 138 kilovolt (kV) overhead line would be the centerline for a 100-foot wide right of way (ROW; **Figure 2**).

This Environmental Assessment (EA) has been prepared to disclose and analyze the environmental consequences of construction, operation, and maintenance of the TPP overhead transmission line. This EA is a site-specific analysis of potential impacts that could result from the implementation of the Proposed Action or Alternatives to the Proposed Action. The EA assists the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any “significant” impacts (as defined under 40 CFR 1508.27) could result from the Proposed Action. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of “Finding of No Significant Impact” (FONSI). If the decision makers determine that this project has “significant” impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a Decision Record (DR) may be signed for the EA approving the selected alternative, whether the Proposed Action or another alternative. A DR, including a FONSI statement, documents the reasons why implementation of the selected alternative would not result in significant environmental impacts beyond those already addressed in the Cedar, Garfield, Beaver, Antimony (CGBA) Resource Management Plan (RMP; BLM 1986).

The Three Peaks Solar Power Plant would be an 80 megawatt (MW) alternating current (ac) solar photovoltaic (PV) power plant constructed on private property northwest of Cedar City in Iron County, Utah. The proposed transmission line would originate at the Three Peaks Solar Power Plant and traverse about 5,500 feet (1.04 miles) of private land and another 5,500 feet (1.04 miles) across public lands administered by the CCFO. The transmission line would transmit up to 210,000 megawatt hours (MWh) of renewable solar electricity per year to the Rocky Mountain Power system.

## Figure 1 Project Location and Land Ownership

## Figure 2 Project Area

This chapter presents the purpose and need for the project, as well as the relevant issues, i.e., those elements of the human environment that could be affected by implementation of the project. The Proposed and No Action alternatives are presented in **Chapter 2**. The existing and/or affected environment is described for those resources identified as potentially impacted by the project in **Chapter 3**. The potential environmental impacts or consequences resulting from the implementation of the Proposed and No Action alternatives are then analyzed in **Chapter 4** for each of the identified issues. **Chapter 5** identifies the people responsible for preparation of the EA, and **Chapter 6** shows the references cited.

## **1.2 PURPOSE AND NEED FOR THE PROPOSED ACTION**

The purpose of the BLM action is to respond to the ROW application submitted by TPP to cross public lands in order to provide legitimate use of that land under Title V, Section 501, of the Federal Land Policy and Management Act (FLPMA) (43 U.S.C. § 1761), and to meet the applicant's objective of transmitting power from the Three Peaks Solar Power Plant to the Rocky Mountain Power system while preventing undue degradation per 43 CFR 2810.2 (a-d).

The need for the BLM action is established by the BLM's responsibility under the FLPMA (43 U.S.C. § 1761) to respond to a request for a ROW grant while avoiding or minimizing adverse impacts to other resource values and locating the uses in conformance with land-use plans. It is the policy of the BLM to authorize all ROW applications at the discretion of the authorized officer in the most efficient and economical manner possible.

## **1.3 CONFORMANCE WITH BLM LAND USE PLAN(S)**

The Proposed Action and alternatives described below are in conformance with the CGBA RMP, approved 1986, as amended May 25, 2004 (BLM 1986). They conform to Objective II A on page 4, which states:

*“The objectives of the lands program are to provide more effective public land management and to improve land use, productivity and utility through: a) accommodation of community expansion and economic development needs; b) improved land ownership patterns; and c) providing for the authorization of legitimate uses of public lands by processing use authorization such as rights-of-way, leases, permits, and State land selections in response to demonstrated public need.”*

It has been determined that the Proposed Action and alternative(s) would not conflict with other decisions throughout the plan.

## **1.4 RELATIONSHIPS TO STATUTES, REGULATIONS, AND OTHER PLANS**

The Proposed Action is consistent with federal, state, and local laws, regulations, and plans to the maximum extent possible, including the following:

- Title V of the FLPMA of October 21, 1976 (90 Stat. 2776, 43 U.S.C. 1761) and the regulations issued there under at 43 Code of Federal Regulations, part 2800
- Taylor Grazing Act of 1934

- Federal Land Policy and Management Act of 1976
- Title 54 U.S.C. 306108 (commonly known as Section 106 of the National Historic Preservation Act)
- Memorandum of Understanding Between the BLM CCFO and Paiute Indian Tribe of Utah
- Utah Prairie Dog Revised Recovery Plan 2012 (USFWS 2012)
- 1962 Bald and Golden Eagle Protection Act
- Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), as amended.
- BLM Manual 6840- Special Status Species Management
- Migratory Bird Treaty Act
- Utah Comprehensive Wildlife Conservation Strategy (CWCS)
- Best Management Practices for Raptors and Their Associated Habitats in Utah (IM: 2006-096)
- Utah’s Standards for Rangeland Health address upland soils, riparian/wetlands, desired and native species and water quality. These resources are either analyzed later in this document or, if not impacted, are listed in the attached Interdisciplinary Team NEPA Checklist (Appendix A).
- Executive Order 12898 (environmental justice)
- Executive Order 13112 (invasive species)
- BLM’s Final Environmental Impact Statement: Vegetation Treatment on BLM Lands in Thirteen Western States, July 1991.

## **1.5 IDENTIFICATION OF ISSUES AND AFFECTED RESOURCES**

Public notification of the project was provided on March 18, 2015 via the Environmental Notification Bulletin Board (BLM 2015), a BLM internet web site used to notify the public of potential projects on public lands in Utah. No comments were received regarding this project. Based on the Interdisciplinary Team NEPA Checklist (**Appendix A**), the following issues were carried forward for analysis in this EA. A full list of issues considered, including those dropped from analysis, is found in the checklist in **Appendix A**.

**Fish and Wildlife:** Red-tailed hawks are known to nest in the project area. Surveys for raptor would be required prior to construction activities. The area is used by mule deer but not to the degree that analysis is required.

**Migratory Birds:** There is potential for migratory birds, including raptors, to occur in the Project Area. To avoid impacts to nesting birds, construction would not take place during the nesting season March 15 – July 30.

**Socio-Economics:** The NEPA document should discuss the impacts that the project may have on job opportunities, property taxes, and local economic growth.

**Special Status Animal Species:** Surveys would be required for special status raptor species. Burrowing owls and ferruginous hawks are known to occur in the area.

**Vegetation:** Currently, the vegetative community is dominated by pinyon pine and juniper. Understory vegetation, particularly perennial grasses, are limited throughout the proposed project area. It would be expected that the post-construction reclamation efforts would provide a diverse composition and production of perennial grasses, forbs, and shrubs.

## **1.6 RESOURCES DISMISSED FROM ADDITIONAL ANALYSIS**

The BLM is required to consider many resources and authorities when evaluating a federal action. Those elements of the human environment that are subject to the requirements specified in statute, regulation, or executive order (BLM H-1790-1, Appendix 1) but have been determined by BLM resource specialists to be not present in the area addressed in this EA, or to be present but not affected, are identified (determination of NP or NI) and summarized in the CCFO's Interdisciplinary Team NEPA Checklist (**Appendix A**).

## **1.7 SUMMARY**

This chapter has presented the purpose and need for the project, as well as the relevant issues, i.e., those elements of the human environment that could be affected by implementation of the project. The Proposed and No Action Alternatives are presented in **Chapter 2**. The existing and/or affected environment is described for those resources potentially impacted by the project in **Chapter 3**. The potential environmental impacts or consequences resulting from the implementation of the Proposed and No Action Alternatives are then analyzed in **Chapter 4** for each of the identified issues. **Chapter 5** identifies the people responsible for preparation of the EA, and **Chapter 6** shows the references cited.

## CHAPTER 2 DESCRIPTION OF ALTERNATIVES

### 2.1 INTRODUCTION

This environmental assessment focuses on the Proposed and No Action alternatives. Other alternatives were not analyzed because the issues identified during scoping did not indicate a need for additional alternatives or mitigation beyond those contained in the Proposed Action. The No Action alternative is considered and analyzed to provide a baseline for comparison of the potential impacts of the Proposed Action.

### 2.2 PROPOSED ACTION

The Proposed Action is to construct, operate, and maintain a 138 kV overhead transmission line between the planned Three Peaks Solar Power Plant and the existing Three Peaks substation along the route shown on **Figures 1** and **2**. Additional details of the proposed action are contained in the Plan of Development (POD) in Appendix B.

#### 2.2.1 Right-of-Way Location and Alignment

The proposed power line would start at the planned Three Peaks Solar Power Plant in the northwestern corner of Section 30, Township 34 South, Range 11 West, Salt Lake Base and Meridian, and then proceed westerly over about 5,500 feet (1.04 miles) of private land. Then the powerline would continue across another 5,500 feet (1.04 miles) of federal land administered by the BLM in the eastern half of Sections 26 and 35, Township 34 South, Range 12 West terminating in Section 35 at the existing Rocky Mountain Power, Three Peaks Substation.

The ROW requested on BLM-administered land is 100-foot wide (50 feet each side of the center line). This width would encompass the power poles, the conductors, and any guy wires extending out from the poles. With the exception of some access, it would also encompass all areas necessary for construction and maintenance of the line.

#### 2.2.2 Land Requirements For Construction and Operation

**Table 1** below outlines the anticipated land requirements and disturbance estimates for the proposed power line.

**Table 1 Summary of Estimated Disturbance for the Proposed Action**

Project Component	BLM	Private	Total
Length of Power Line	5,500 feet (1.04 miles)	5,500 feet (1.04 miles)	11,000 feet (2.08 miles)
Acreage of ROW	12.63 acres	12.63 acres	25.26 acres
Number of Poles	9	9	18
Temporary disturbance for construction of structures	4.14 acres	4.14 acres	8.28 acres
Long-term disturbance for structures	0.011 acres	0.011 acres	0.022 acres
Length of temporary access road including spur roads	6,000 feet (1.14 miles)	5,500 feet (1.04 miles)	11,500 feet (2.18 miles)

<b>Project Component</b>	<b>BLM</b>	<b>Private</b>	<b>Total</b>
Road disturbance <sup>1</sup>	1.93 acres	1.77 acres	3.7 acres
Staging and laydown areas	0	2.75 acres	2.75 acres
Conductor pulling and splicing areas <sup>2</sup>	2.30 acres	1.15 acres	3.45 acres
<b>Total Disturbance</b>	<b>8.37 acres</b>	<b>9.81 acres</b>	<b>18.18 acres</b>

<sup>1</sup>The entire length of the proposed power line follows or parallels an existing two track route. The disturbance estimates includes land previously disturbed by these roads.

<sup>2</sup>There would be two 400x125 foot pulling areas on BLM land and one 400x125 foot pulling area on private land owned by the applicant. On BLM land, the areas would extend 25 feet beyond the long-term ROW.

### **2.2.2.1 Access**

Access from Interstate 15 (I-15) for delivery of materials would be north along State Road (SR) 130 from the north Cedar City exit to the Enoch Road and then west to the Lund Highway. Material storage, construction, and laydown areas would be near the power plant area on private lands. Some materials may be delivered to the work areas from the south Cedar City exit on SR-56 and then north on Lund Highway.

The entire length of the proposed power line follows or is paralleled by existing two track routes that would be used for construction and maintenance access. Some short spur routes would be created mainly by cross country travel and the existing two track routes may have to be widened to approximately 14 feet for use by construction equipment. Some excavation and fill of small washes may be necessary. If needed, metal culverts would be placed in drainages. All construction vehicle movement outside of the ROW would be restricted to pre-designated access, contractor acquired access, or public roads. Access would be limited to the minimum necessary for construction and maintenance.

No long-term blockages of existing roads and trails as a result of project construction would be anticipated. Temporary traffic delays on existing roads and trails would be limited to 15 to 30 minutes. Delays impacting weekend and holiday traffic would be avoided.

If damaged by construction activities, fences and gates would be repaired to their original pre-disturbed condition as required by the BLM. Sixteen-foot steel stock gates would be permanently installed at intersection of the ROW with existing fences to facilitate access by the applicant and to discourage improper off-highway vehicle (OHV) use of the ROW. Following construction any culverts would be removed and the access routes would be reclaimed back to their two track profile.

### **2.2.2.2 ROW Cleanup and Restoration**

The applicant would ensure construction sites, laydown yards, pulling and splicing sites, and access routes are kept in an orderly condition during the construction period. Crews would collect excess vegetation, waste construction materials, and rubbish from all construction areas, haul them away, and dispose of them at approved sites. All construction areas not needed for normal maintenance would be returned to their original condition, where feasible, as specified by the BLM. Any damaged gates and fences would be repaired. The applicant would be responsible

for reseeding all temporarily disturbed areas, as determined by the BLM or landowner, and monitoring for weed infestation.

### 2.2.3 Operation and Maintenance

The day to day operation of the line as well as routine and emergency maintenance would be direct by the applicant using a monitoring system located at the power plant.

#### 2.2.3.1 Routine Maintenance Activities

Routine maintenance activities are ordinary maintenance tasks that are regularly carried out. They are limited in scope, accomplished by relatively small crews using a minimum of equipment, and usually conducted within a time frame from a few hours up to a few days. Routine maintenance requires discussions up front with the BLM biologist prior to any ground disturbing activities. Pole replacement, for example, is considered routine maintenance but still requires ground disturbance. Biological surveys would likely be required.

While carrying out routine maintenance activities, field personnel and contractors would adhere to basic standards and guidelines contained in the POD (Appendix B), special use stipulations, and any additional requirements identified in the decision documents that would apply to the proposed ROW. If for any reason the maintenance would require deviation, field personnel and contractors would notify the BLM prior to initiating work on the activity and/or during the activity if additional problems are encountered. Anticipated routine maintenance activities are described in **Table 2** below.

**Table 2 Transmission Line Routine Maintenance Activities**

Typical Activity	Activity Description	Equipment Needed	Frequency
Ground inspection	Visual physical inspection of lines and poles to detect any problems	OHV, 4-wheel drive (4wd) truck, pedestrian access	Six month intervals or during emergency outage conditions
Pole testing and treatment	Taking bore samples from poles and treating poles with chemical preservative	OHV, 4wd truck, pedestrian access	10-year cycle
Insulator replacement	Replacement of an insulator upon failure	OHV, 4wd truck, large equipment	Infrequent, based upon inspection
Cross arm replacement	Supporting cross arm to poles dragged or trucked to site and replaced	4wd truck, boom truck, large equipment	As needed based upon inspection
Anchor wire/anchor replacement	Replacing anchor wires or anchors	4wd truck, track hoe, other equipment	As needed based upon inspection
Hardware tightening	Tightening of existing hardware on structures	4wd truck, boom truck	10-year cycle
Pole replacement	Prior approval by BLM biologist. Access to site, creating laydown area, digging new pole holes and anchor holes, framing structure, removing old pole	4wd truck, boom truck, excavator, bulldozer or other tracked vehicle, line truck, helicopter	As needed based on inspection

Typical Activity	Activity Description	Equipment Needed	Frequency
Weed control	Ongoing monitoring and treatment of noxious and invasive species would be completed by the proponent	Sprayer (herbicide)	Treatment would be completed by the proponent as necessary based on monitoring

#### 2.2.4 Design Features to Reduce Impacts

Standard Best Management Practices (BMPs) would be followed, and Design Features would be implemented to minimize adverse impacts. The BMPs and Design Features specific to the potentially affected resources are summarized below and described further in the POD (**Appendix B**). The BLM may inspect the project both during and after project completion to ensure compliance with Design Features and other requirements.

Noxious, Non-Native Species: All equipment, including pickup trucks and passenger vehicles, would be cleaned of soils, seeds, vegetative matter, or other debris or matter that could contain or hold noxious seeds prior to entering the Project Area. Equipment cleaning would also take place any time the equipment leaves the Project Area, or is used on another project and reenters the Project Area. TPP would follow any regulations pertaining to control of noxious weeds on BLM land. TPP would be responsible for weed control work within the project ROW for a period of five years after construction, if needed. Any proposed use of herbicides would comply with BLM requirements.

Raptors and Migratory Birds: The transmission line system would be developed in compliance with the Avian Power Line Interaction Committee (APLIC) *Suggested Practices for Avian Protection on Power Lines* (2006) (APP Guidelines) and BLM best management practices for raptors and their associated habitats in Utah (2006) recommended practices to protect eagles, hawks, and other migratory birds from electrocutions and collision mortality on overhead power lines and substations. If required by BLM, raptor perch deterrents/discouragers would be used on poles to minimize perching.

In order to avoid or reduce impacts on nesting success of raptors, activities would not occur within recommended spatial and seasonal buffers, and would follow Utah BLM's *Best Management Practices for Raptors and Their Associated Habitats in Utah* (BLM 2006). For most raptors including burrowing owls, spatial buffers would be 0.5-mile and seasonal buffers would be March 1 – August 1. If golden eagles are found to be nesting in the area, spatial buffers would remain at 0.5 mile, but seasonal buffers could be extended to January 1 – August 31 (BLM 2006). If existing topography limits actual line-of-sight between an active nest and construction activities, the spatial and seasonal buffers could be reduced if approved by the BLM based on site specific analysis.

To avoid or minimize potential short-term and long-term impacts to migratory birds, construction activities would be either limited during the migratory bird nesting period (generally defined as March 15 – July 15 [BLM 2008]), or a migratory bird nesting survey would be completed in areas proposed for disturbance during this time period. If an active nest were discovered, the BLM biologist would be notified and an appropriate buffer area around the nest

would be established to prevent nest abandonment until after the migratory bird nesting period is over and/or the young have fledged.

Stabilization and Rehabilitation: Vegetation removal would be limited to that necessary to install the line and to ensure future safe operation. Any brush removed during construction would be chipped and used as mulch after reclamation activities. Any trees felled would be similarly mulched.

All areas subject to temporary ground disturbance (e.g., pole areas, spur routes) would be restored to original contours. Disturbed areas around poles and on spur routes would be raked and seeded. A certified weed-free seed mix, approved by the BLM, would be used during reclamation activities, and would utilize a mix of native and non-native species that would be likely to grow on the site and would be competitive with noxious weeds that tend to grow on disturbed sites in the area. The objective of reclamation would be to restore temporarily disturbed areas impacted as part of this project to at least 50 percent of the ecological site potential within five years of completion of restoration efforts, or to a percentage of cover to be determined by BLM. If the rehabilitation objective is not achieved, TPP would be responsible for further restoration activities or would provide monetary compensation to BLM to complete any additional restoration activities. Monitoring and final evaluation of the success of reclamation would be the responsibility of TPP in close coordination with the BLM.

Wildlife, Including Special Status Species: No firearms, air guns, or archery equipment would be allowed on the project sites. No pets would be permitted on project sites. To prevent entrapment of wildlife during construction, any open pits (i.e., pole holes) would be monitored throughout the construction day. Excavated pits more than two feet deep would be covered at the close of each day. Alternatively, fencing may be erected around open pits or trenches. At the beginning of the construction day and before pits are filled, they would be inspected for trapped animals. If any animals are found, they would be moved out of harm's way. No rodenticides would be used on project sites. Encounters with a protected species (e.g., raptors, migratory birds, or other special status species) would be reported to the BLM and/or the appropriate oversight agency (i.e., USFWS). Any contractor or employee who inadvertently kills or injures a protected species would immediately report the incident to the BLM and/or the appropriate oversight agencies.

## **2.3 NO ACTION**

Under the No Action Alternative, the requested ROW would not be granted, and a new transmission line would not be constructed on federal lands.

Although the proposed route is the shortest, with the least amount of new surface disturbance, the applicant could potentially design a route utilizing only private lands to achieve their objective of transmission of solar energy from the planned Three Peaks Solar Power Plant to the Rocky Mountain Power Three Peaks Substation.

## **2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER ANALYSIS**

No other alternatives were considered, as the proposed route would result in the least disturbance to public land and resources.

## CHAPTER 3 AFFECTED ENVIRONMENT

### 3.1 INTRODUCTION AND GENERAL SETTING

The affected environment was considered and analyzed by an ID Team as documented in the Interdisciplinary Team NEPA Checklist (**Appendix A**). The checklist indicates which resources of concern are either not present in the project area (NP) or would not be impacted to a degree that requires detailed analysis (NI). Resources which could be impacted to a level requiring further analysis (PI) are described in **Chapter 3** and impacts on these resources are analyzed in **Chapter 4** below. Public notification of the project was provided on March 18, 2015 via the Environmental Notification Bulletin Board (BLM 2015), a BLM internet web site used to notify the public of potential projects on public lands in Utah. No comments were received regarding this project, therefore only issues identified by the ID Team have been analyzed in this EA. When completed, however, this EA will be available on the ENBB website and public comment will be accepted for a period of 15 days.

### 3.2 FISH AND WILDLIFE

Wildlife habitat in the project area is typical of the region, comprised of mainly shrub steppe and pinyon-juniper woodlands.

A pedestrian survey of the Project Area was completed on May 28 and 29, 2015. A raptor nest survey was conducted within 0.5 miles of the project footprint. No eagle nesting habitat was found within a one mile buffer of the proposed line. Raptor species and nests recorded during the 0.5-mile survey include:

- Eight inactive ferruginous hawk (*Buteo regalis*) nests,
- One ferruginous hawk nest was occupied by a long-eared owl (*Asio otus*) with two chicks,
- Two ferruginous hawk nests were occupied by common raven (*Corvus corax*),
- One active red-tailed hawk (*Buteo jamaicensis*) nest with two chicks,
- Five inactive old stick nests of unknown species, and
- A pair of red-tailed hawks defending an area but no nest was found.

In addition to raptors, the Project Area also provides nesting habitat for other migratory birds. Non-raptor migratory birds observed in the Project Area during the May 28 and 29, 2015 survey were: mountain bluebird (*Sialia currucoides*), black-throated sparrow (*Amphispiza bilineata*), Brewer's sparrow (*Spizella breweri*), juniper titmouse (*Baeolophus ridgwayi*), western meadowlark (*Sturnella neglecta*), ash-throated flycatcher (*Myiarchus cinerascens*), and pinyon jay (*Gymnorhinus cyanocephalus*).

Other wildlife observed during surveys include: pronghorn antelope (*Antilocapra americana*), black-tailed jack rabbit (*Lepus californicus*), and leopard lizard (*Gambelia wislizenii*).

### 3.3 SOCIOECONOMICS

Iron County is located in southwestern Utah with the western boundary bordering Nevada. According to US Census data records, the 2014 population was 47,269; the median annual household income was \$42,369; and 20.9 percent of the individuals were living below the poverty level. In 2007, Iron County hosted 3,913 business firms with education and health care providing the most jobs at approximately 27 percent, and retail providing 13 percent of the jobs. The unemployment rate in Iron County as of March 2015 was 4.5 percent, compared to 3.6 percent for the state and 5.5 percent nationally (U.S. Bureau of Labor Statistics 2015).

Cedar City, with a population of 29,162, is the closest city to the Project Area, located approximately 10 miles southeast. Enoch, with a population of 6,005, is located approximately 7 miles east of the Project Area. Other towns in Iron County are mostly rural; agriculture production includes mostly hay, potatoes, and alfalfa. Historically Iron County's economic base was mining. Today, some remaining precious metal mines are in the western part of the county (US Census 2015).

### 3.4 VEGETATION

Based on data from the US Geological Survey (USGS) National Gap Analysis Program, the majority of the Project Area occurs within two landcover categories: inter-mountain basins big sagebrush shrubland and Colorado Plateau pinyon-juniper woodland.

#### Inter-Mountain Basins Big Sagebrush Shrubland

This ecological system occurs throughout much of the western US, typically in broad basins between mountain ranges, plains, and foothills between 4,920 to 7,550 feet elevation. Soils are typically deep, well-drained, and non-saline. These shrublands are dominated by Basin big sagebrush (*Artemisia tridentata tridentata*) and/or Wyoming big sagebrush (*Artemisia tridentata wyomingensis*). Scattered juniper (*Juniperus* spp.), greasewood (*Sarcobatus vermiculatus*), and saltbush (*Atriplex* spp.) may be present in some stands. Perennial herbaceous components typically contribute less than 25 percent vegetative cover. Common graminoid species include Indian ricegrass (*Achnatherum hymenoides*), blue grama (*Bouteloua gracilis*), thickspike wheatgrass (*Elymus lanceolatus*), Idaho fescue (*Festuca idahoensis*), needle and thread (*Hesperostipa comata*), basin wildrye (*Leymus cinereus*), James galleta (*Pleuraphis jamesii*), western wheatgrass (*Pascopyrum smithii*), Sandberg bluegrass (*Poa secunda*), and bluebunch wheatgrass (*Pseudoroegneria spicata*) (USGS 2005).

#### Colorado Plateau Pinyon-Juniper Woodland

This ecological system occurs in dry mountains and foothills of the Colorado Plateau region including the Western Slope of Colorado to the Wasatch Range, south to the Mogollon Rim and east into the northwestern corner of New Mexico. It is typically found at lower elevations ranging from 4,920 to 8,000 feet elevation. These woodlands occur on warm, dry sites on mountain slopes, mesas, plateaus, and ridges. Two-needle pinyon (*Pinus edulis*) and/or Utah juniper (*Juniperus osteosperma*) dominate the tree canopy. Understory layers are variable and

may be dominated by shrubs or graminoids, or be absent. Associated species include Greenleaf manzanita (*Arctostaphylos patula*), sagebrush, littleleaf mountain mahogany (*Cercocarpus intricatus*), alderleaf mountain mahogany (*Cercocarpus montanus*), blackbrush (*Coleogyne ramosissima*), Stansbury cliffrose (*Purshia stansburiana*), antelope bitterbrush (*Purshia tridentate*), Gambel oak (*Quercus gambelii*), blue grama, James galleta, and muttongrass (*Poa fendleriana*) (USGS 2005).

## CHAPTER 4 ENVIRONMENTAL IMPACTS

### 4.1 DIRECT AND INDIRECT IMPACTS

Potential impacts can be direct or indirect, and are described in terms of cause, nature of the impact, and the context and intensity.

The Council on Environmental Quality (CEQ) regulations define direct impacts as those effects “...which are caused by the action and occur at the same time and place” (40 CFR 1508.8(a)). Indirect impacts are defined as those effects “...which are caused by the action and are later in time or farther removed into the distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on water and air and other natural systems, including ecosystems” (40 CFR 1508.8(b)).

In this analysis, short-term impacts are those effects that would occur over a period of one year or less (i.e., during construction of the line). Long-term impacts are those effects that would occur over a greater than one-year period (i.e., after construction is complete).

### 4.2 PROPOSED ACTION

This section analyzes the impacts of the Proposed Action to those potentially impacted resources described in the Affected Environment section above (**Chapter 3**). The impacts section for the Proposed Action Alternative assumes that all Design Features described in **Chapter 2** would be implemented with project design and construction.

#### 4.2.1 Fish and Wildlife

Direct impacts to small mammals and reptiles may occur during construction, when individuals are unable to move away from vehicles and other machinery used to install the transmission line. Mortality may occur when individuals are buried or run over by equipment. Noise and activity of construction in the Project Area could disperse wildlife into the surrounding areas; however, this impact would be short term and minor, as wildlife would be expected to return to the Project Area after noise and activity levels return to pre-construction baseline levels. A total of 18.18 acres would be disturbed temporarily during construction (**Table 1**), of which 8.37 acres would be in the BLM ROW. The vegetation and habitat types available in the Project Area are widely available in adjacent areas. In general, large mammals (such as big game) would not be directly impacted by construction equipment because they are likely to move away from the disturbance area as disturbance noises approach.

In order to minimize potential impacts to nesting raptors, pre-construction raptor surveys would be conducted and construction activities would be timed to avoid identified seasonal and spatial buffers of any active nests discovered (see Design Features). It is well known that raptors have been and continue to be electrocuted by power lines. New power pole designs have significantly reduced the numbers of raptor electrocutions. Implementation of the APP Guidelines and outlined Design Features would minimize construction impacts to raptors (APLIC 2006; BLM 2006; BLM 2008). Raptor electrocutions would be minimized by utilizing raptor-safe design standards. Impacts to raptors as a result of electrocution are expected to be minor and long term.

Long-term disturbance in the area would be limited to 0.022 acre, of which 0.011 acre would be within the BLM ROW. This is the area that would be occupied by power poles and other structures. This small loss of habitat would have no impact on wildlife.

#### **4.2.2 Migratory Birds**

To avoid or minimize potential short-term impacts to migratory birds, construction activities would be either limited during the migratory bird nesting period (generally May 1 – July 15), or, following the results of the pre-construction migratory bird nesting survey, would be avoided in areas proposed for disturbance during this time period (see Design Features in **Section 2.2.4**). The Proposed Action may result in negligible impacts to migratory birds from human presence in the short term, and a small reduction in habitat (0.022 acre) in the long term.

It is unlikely that an active migratory bird nest would be destroyed or abandoned during operation and maintenance of the proposed line. Maintenance would be occasional and infrequent and most disturbances associated with operation and maintenance would occur within the disturbed area around the poles. Impacts to migratory birds and raptors as a result of operations and maintenance are expected to be long term and negligible.

#### **4.2.3 Socioeconomics**

Construction of the transmission line is estimated to take approximately six weeks. Although a large workforce would not be required, construction would nevertheless provide a short-term benefit to the economy as workers from outside the area pay for their lodging, meals, and other essentials. Following construction the Project would provide tax revenue to the county. Thus the project would provide long-term, minor economic benefits to the local area and Iron County.

#### **4.2.4 Vegetation**

The Proposed Action would result in the short-term disturbance of 18.18 acres and the long-term loss of 0.022 acres of vegetation. Following construction, the Project Area would be reseeded using a BLM-approved seed mix. The implementation of the Proposed Action would improve and enhance vegetation within the ROW since disturbed areas would be seeded following construction, and pinyon pine and juniper would be removed to open up the understory vegetation, increasing diversity and allowing grasses, forbs, and shrubs to thrive.

Vegetation would be removed in the immediate vicinity of pole locations. Vegetation would be crushed and damaged in temporary disturbance areas, such as areas of overland access, construction areas around pole locations, and at pulling and staging areas. Impacts to vegetation would be long term and minor.

Operation and maintenance of the proposed transmission line would generally occur directly adjacent to a frontage road; no additional disturbance of vegetation would be expected. Occasional repairs of the line may require overland travel that would result in areas of crushed vegetation. Poles would be maintained clear of vegetation, and trees within the ROW would be removed or maintained at a height that would not pose a fire hazard. Impacts due to ongoing maintenance and control of vegetation within the ROW would be long term and negligible.

### 4.3 NO ACTION

Under the No Action Alternative, BLM would not approve the proposed ROW and the transmission line would not be constructed as described in **Chapter 2**. TPP would route the transmission line using only private land and avoiding BLM land. Since any route using just private land would be substantially longer, impacts would likely be proportionally greater as well. In addition, some of the environmental safeguards required by BLM might be ignored when using an alternate route.

### 4.4 CUMULATIVE IMPACTS

Cumulative impacts are those impacts resulting from the incremental impact of an action when added to other past, present, or reasonably foreseeable actions regardless of what agency or person undertakes such other actions.

Cumulative Effects Study Areas (CESAs) were determined for each resource as follows (**Figure 3**):

- Fish and Wildlife
  - Raptors: 3 miles from the BLM ROW
  - Migratory birds: 1 mile from the BLM ROW
- Vegetation
- Socioeconomics: Iron County

With the exception of the socioeconomics CESA, no Areas of Critical Environmental Concern or lands with wilderness characteristics are included. Lands within the CESA for all categories except socioeconomics are administered by the BLM and Iron County. Lands within the CESA for socioeconomics (i.e., Iron County) are administered by the BLM, Iron County, Cedar City, the U.S. Forest Service (USFS), the National Park Service (NPS), the Paiute Tribe of Utah (PITU), and the State of Utah School and Institutional Trust Lands Administration (SITLA).

#### 4.4.1 Past and Present Actions

Current and historical uses of lands within the CESAs include residential use, agriculture and ranching, electrical transmission, outdoor recreation, rural residential uses, industry, transportation, and mining.

Transportation routes within the CESAs include the Lund Highway. For the socioeconomics CESA (Iron County), routes include I-15, SR-56, SR-130, SR-14, SR-148, SR-143, county and city streets, private farm roads, OHV and snowmobile trails, and pedestrian/equestrian trails.

Past and present use of the private, state, and public lands in the CESAs is primarily agricultural production, ranching, mining, and recreation.

The successional transition of grassland to shrubland and shrubland to pinyon-juniper continues to be of concern. The BLM has spent considerable time and effort on vegetation treatments within the CESAs to remove the pinyon and juniper overstory in order to reduce fuel loading and provide ecological diversity for grazing animals and other uses of the public lands.

Renewable energy production projects from wind, solar, and geothermal resources have been constructed and continue to be explored within the CESAs.

I-15 is within a designated utility corridor. Existing utilities within the I-15 corridor include a natural gas mainline, fiber optic lines, overhead electric transmission lines, radio and television towers, and cellular telephone towers.

#### **4.4.2 Reasonably Foreseeable Action Scenario**

The following reasonably foreseeable action scenario identifies the actions that would cumulatively affect the same resources in the CESA as the Proposed Action and No Action Alternative.

The BLM-administered land in the CESAs is managed by the CCFO. The nearby Three Peaks Special Recreation Management Area will continue to be managed for recreational use. Use of BLM-administered lands for recreation would be expected to continue at current levels.

The Horse Hollow Vegetation Enhancement Project proposes vegetation treatments over a large area adjacent to and including the TPP project area. The project is currently undergoing the NEPA process (EA UT-C010-2013-0023).

The CCFO has no other projects planned in the local CESAs within the foreseeable future. Any future projects involving federal lands or funding that may develop in the CESA would be subject to NEPA and the full array of federal laws addressing environmental protection. As required by law, resources would be protected or appropriately mitigated.

Other current uses of BLM-administered lands would be expected to continue at current levels.

Development of residential and commercial property on private land in the CESAs under the jurisdiction of Iron County and Cedar City will continue.

The Iron Springs Solar Project would be an 80 MW solar PV electrical generating facility located on approximately 883 acres of land within unincorporated Iron County. The Iron Springs Solar Project would consist of PV solar arrays, an approximately 0.5-acre substation facility, and ancillary equipment. The total permanent disturbance would be 635.5 acres.

The proposed Three Peaks Power Plant would be an 80 megawatt (MW) alternating current (ac) solar PV power plant located on private property northwest of Cedar City. The Three Peaks Power Plant would generate and sell up to approximately 210,000 megawatt hours (MWh) of electricity per year through the Rocky Mountain Power system.

### **4.4.3 Cumulative Impacts**

Past uses of the local CESAs were primarily for livestock grazing and private land development. The Proposed Action is not anticipated to impact recreation use and would likely improve the vegetation community by reducing pinyon and juniper encroachment. Impacts to vegetation and sensitive species would likely continue on private land regardless of federal approval of the ROW, although private land actions would be subject to private land authorities.

The result of short-term disturbance of 18.18 acres and the long-term loss of 0.022 acre within the BLM ROW, when added to past, present, and/or reasonably foreseeable actions is expected to result in short- and long-term, negligible to minor cumulative impacts.

## CHAPTER 5 PERSONS, GROUPS, AND AGENCIES CONSULTED

During preparation of the EA, the public was notified of the Proposed Action by posting on the Environmental Notification Bulletin Board for the CCFO on May 18, 2015. No one has contacted the BLM in response to the notice.

**Table 3 List of Persons, Agencies and Organizations Consulted**

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
Utah State Historic Preservation Office (SHPO)	Consultation for undertakings, as required by the National Historic Preservation Act (NHPA) (16 USC 470)	Consultation completed on [NEED DATE]
Paiute Indian Tribe of Utah	Consultation as required by the American Indian Religious Freedom Act of 1978 (42 USC 1531) and the National Historic Preservation Act (16 USC 1531)	Consultation completed on [NEED DATE]

### 5.1 LIST OF PREPARERS

BLM staff specialists who determined the affected resources for this document are listed in Appendix A. Those who contributed further analysis in the body of this EA are listed below.

**Table 4 List of Preparers**

#### BLM Preparers

Name	Title	Responsible for the Following Section(s) of this Document
Michelle Campeau	Project Leader, Realty Specialist	Socioeconomic
Sheri Whitfield	Wildlife Biologist	Wildlife; Threatened, Endangered and Sensitive Species; Migratory Birds
Jeffrey Reese	Rangeland Management Specialist	Livestock Grazing, Vegetation

## Non-BLM Preparers

<b>Name</b>	<b>Title</b>	<b>Responsible for the Following Section(s) of this Document</b>
Eric Holt	Sr. Project Manager	Project Management
Seth Topham	GIS Specialist	GIS data analysis
Greg Sharp	Wildlife Biologist	Wildlife, Migratory Birds, Special Status Species
Jill Hankins	NEPA Specialist	Chapters 1 and 3, Livestock and Vegetation
Jon Schulman	NEPA Specialist	Document Preparation

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- William Self Associates, Inc (WSA). 2015. Cultural Resources Inventory for a Powerline Right-of-Way near the Three Peaks Substation, Iron County, Utah. Prepared by Lindsay M. Wygant. June 2015. Utah State Project No. U-15-SQ-0383bp WSA Technical Report No. 2015-22.

# **APPENDICES**

## **APPENDIX A**

### **INTERDISCIPLINARY TEAM CHECKLIST**

**APPENDIX B**  
**Plan of Development**  
**Scatec Solar Three-Peaks Project**  
**Proposed 138-Kilovolt (kV) Power Transmission Line**

## **APPENDIX C**

### **Additional Supporting Documentation**

## LIVESTOCK GRAZING

The project area is within an active grazing allotment, the Upper Horse Hollow Allotment. The allotment is on 7,735 acres of BLM-administered land and 7,474 acres of private land for a total of 15,209 acres. It has a total of 843 active Animal Unit Months (AUMs).

The Upper Horse Hollow Allotment has 420 sheep authorized from January 1 through March 31; 170 cattle authorized from November 1 through January 31; and 85 cattle authorized from February 1 through February 28 on an annual basis. The allotment has a seven pasture rotation to ensure that each pasture receives rest during the critical growing period. Other than fencing, there are no improvements to the allotment (i.e., watering facilities; personal communication, Jeffrey Reese 2015).

The proposed ROW and power line would be in the Upper Horse Hollow Allotment. However, livestock operations would not be substantially impacted and construction of the power line would affect only a small amount of forage (approximately 18.18 acres out of 15,209 acres in the allotment, or 0.12 percent). This amounts to 1.01 AUMs out of the 843 available on the allotment, which would not result in a reduction of any federal grazing permit. There would be a slight short-term increase in the potential for vehicle/livestock collisions but this would be controlled by setting an appropriate speed limit on access roads. The applicant would coordinate construction activities with the livestock permittees to avoid conflicts with livestock operations.

The long-term reduction of acreage on the Upper Horse Hollow Allotment would be 0.022 acre or 0.00015 percent of the allotment. This amounts to 0.012 AUMs that would be lost; a long-term, negligible impact.

## SPECIAL STATUS ANIMAL SPECIES

Management status, habitat requirements, and probability of occurrence for all special status species with the potential to occur in the Project Area are included in **Table C-1**. The Project Area does not provide habitat for any Threatened, Endangered, or Candidate species. The Three Peaks Utah prairie dog colony (*Cynomys parvidens*) is located within 5 miles of the Project Area, but would not be impacted by the Project.

Conservation, as applied to BLM sensitive species, is defined as the use of programs, plans, and management practices to reduce or eliminate threats affecting the status of the species, or improve the condition of the species' habitat on BLM administered lands. **Table C-1** below lists Utah BLM Sensitive Species with potential to occur in the Project Area.

**Table C-1 Sensitive Animal Species with Potential to Occur in the Project Area**

Species	Habitat Requirements	Probability of Occurrence
<b>Bald Eagle</b> ( <i>Haliaeetus leucocephalus</i> )	Winters throughout Utah. Large winter congregations are typically associated with open water; however some individuals may use upland habitats where carrion is available.	<b>May occur.</b> Individuals may scavenge in the Project Area in winter/early spring.

Species	Habitat Requirements	Probability of Occurrence
<b>Burrowing Owl</b> (Athene cunicularia)	Occurs statewide in Utah in scattered localities. May occur in a variety of grasslands and shrubland habitats, but typically nests in sparsely vegetated areas of sagebrush steppe and desert scrub communities. Often found in burrows dug by rodents. (Bosworth 2003, Parrish et al. 2002)	<b>May occur.</b> Suitable habitat identified in Project Area. Species not observed during surveys.
<b>Ferruginous Hawk</b> (Buteo regalis)	Occurs throughout Utah in flat or rolling terrain with suitable habitat, including sagebrush shrublands, salt desert scrub, and grasslands, and the ecotone between pinyon-juniper and sagebrush. (Parrish et. al. 2002)	<b>Present.</b> Suitable nesting and foraging habitat is present. Nests were found in the area but none were active.
<b>Kit fox</b> (Vulpes macrotis)	Kit foxes are highly adapted to arid and semi-arid areas. Habitats include desert, grassland/herbaceous, playa/salt flat, savanna, shrubland; primarily in open desert, shrubby or shrub-grass habitat. In the Great Basin it is found in shadscale, greasewood, and sagebrush communities. It opportunistically eats small mammals, rabbits, ground squirrels, small birds, invertebrates, and plant matter.	<b>May Occur.</b> The Project Area contains sagebrush and open areas with soils conducive to burrowing. Species not observed during surveys.

Special status species with a potential to be located in or near the Project Area are shown in **Table C-1**. Of these, three are bird species. To avoid or minimize potential short-term impacts to migratory birds, construction activities would be either limited during the migratory bird nesting period (generally May 1 – July 15), or, following the results of the pre-construction migratory bird nesting survey, would be avoided in areas proposed for disturbance during this time period (see Design Features in **Section 2.2.4**).

Kit fox may be present in the area, although no burrows or individual were observed during surveys. Kit fox may be disturbed by human presence during construction, but it is unlikely that any would be harmed as they would disperse before being contacted by vehicles and construction vehicles would likely avoid running over burrows in lieu of an alternate, “path of least resistance” route.