U.S. Department of the Interior
Bureau of Land Management

Environmental Assessment for the

Commnet Embudo Wireless Communications Tower Project

DOI-BLM-NM-F020-2013-0030-EA

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Chapter 1 Introduction

1.1 Background

Commnet Wireless Four Corners, LLC (Commnet) has filed an application for right-of-way (ROW) with the Bureau of Land Management (BLM) Taos Field Office (TFO) for the installation of a 60-foot-tall slim-line LiteSite monopole communications tower. The ROW, granted by the BLM, would authorize Commnet to construct the monopole tower and install necessary facilities, and use the existing access road for project-related vehicle traffic throughout the life of the project. It is anticipated that if the ROW is granted, construction of the proposed tower would commence following approval.

The proposed project area (PPA) is located in Rio Arriba County on lands managed by the BLM TFO between Embudo and Dixon, New Mexico, 1.1 miles east of the intersection of New Mexico Highway (NM) 68 and NM 75. The site is located 1 mile along an existing access road from NM 68. The legal description of the project site, including the access road is Sections 20 and 21, Township 23 North, Range 10 East.

This proposed communications tower would provide services that would enhance the public safety of the area's residents and visitors, and increase the economic viability of the area. The BLM TFO is requiring that this environmental assessment (EA) be prepared to implement the public disclosure requirements of the National Environmental Policy Act of 1969 (NEPA). The BLM TFO has determined that an EA is required due to the location of the proposed tower site within the Lower Gorge Area of Critical Concern (ACEC) and use of the existing access through the Copper Hill ACEC, as well as the public interest in the project.

SWCA Environmental Consultants (SWCA) conducted cultural and biological resource surveys, as required by the National Historic Preservation Act (NHPA), the Endangered Species Act (ESA), and the Migratory Bird Treaty Act (MBTA), on March 28, 2013, and the results of those surveys have been incorporated into this EA. The biological evaluation is included as Appendix A, and the cultural resource survey report is on file with the BLM TFO. BLM representatives visited the site on March 28, 2013, along with the SWCA resource specialists conducting the cultural and biological surveys.

This EA tiers to the 2012 Taos Resource Management Plan (RMP) (BLM 2012). This EA complies with the requirements of NEPA and federal regulations found in 40 Code of Federal Regulations (CFR) Chapter V. The project record contains an interdisciplinary analysis to support the findings in this document and is located at the BLM TFO. This EA analyzes the site-specific impacts associated with the Proposed Action and its alternative, identifies mitigation measures to potentially reduce or eliminate those impacts, and provides agency decision-makers with detailed information upon which to approve or deny the Proposed Action or an alternative.

1.2 Purpose and Need for Action

The BLM's purpose is to provide for the authorized use of public lands in a manner that serves the public interest and minimizes potential impacts to the affected environment. The need for the action is established by the BLM's responsibility under the Federal Land Policy and Management Act (FLPMA) to respond to an application for a ROW grant for use of federal land. The BLM will decide whether to grant the ROW and, if so, under what terms and conditions.

The proponent's objective is to provide the rural area with enhanced communications services, providing increased safety to the area's residents and visitors through better access to emergency services, and potentially increasing the economic viability of the area via better cell phone coverage and communication capabilities.

1.3 Land Use Plan Conformance

The Proposed Action is consistent with the goals and objectives of the Taos RMP, approved in May 2012, which states the BLM's goal to: "Establish an efficient system of utility corridors and communication sites to meet the energy and communication needs of the public with minimum negative impacts on visual, biological, cultural, and physical resources." (BLM 2012:41). In addition, the objective to support the goal states, "Issue land-use authorizations based on RMP decisions, BLM policy, and other Federal mandates to support the public need for uses such as utilities, renewable energy, and telecommunications."

The proposed tower site location is within the Lower Gorge ACEC, and the existing access route to the proposed site passes through the Copper Hill ACEC. Management prescriptions from the RMP for the Lower Gorge ACEC pertaining to this Proposed Action include: "Exclude new rights-of-way, except for road improvements to improve safety, or to provide access or utility service to non-Federal land where no practicable alternative exists" (BLM 2012:109). The existing road, proposed to be used to access the tower site location, is within the Lower Embudo zone of the Copper Hill ACEC, which the RMP stipulates as a ROW exclusion area (BLM 2012:104).

Guidance on handling ROW applications in exclusion areas can be found in the RMP, which states,

> "Requests for land use authorizations will be analyzed and mitigation measures applied on a case-by-case basis in compliance with the NEPA process. Avoidance or exclusion areas may be applied to lands to be avoided but may be available to the location of rights-of-way with special stipulations and areas where location is not available under any conditions, respectively" (BLM 2012:41).

Section 2.3 of this EA will demonstrate what other locations were considered and thoroughly vetted, why these were deemed not practicable by the BLM and applicant, and the rationale for why the BLM is considering granting the ROW within the ACECs.

Since no other reasonable alternative was found located outside the ACECs, the Proposed Action is in conformance with the approved management and guidance found in the Taos RMP.

1.4 Scoping and Identification of Issues

Appropriate scoping helps identify resources and resource uses that could be impacted, reducing the chances of overlooking a potentially significant issue or reasonable alternative. Scoping takes place both internally within the BLM via meetings with resource specialists, as well as externally where the public is informed of the proposal and invited to comment.

The BLM project manager and resource specialists visited the project site on March 28, 2013. In addition, the BLM Interdisciplinary Team (ID Team) of resource specialists considered resources potentially impacted during an internal NEPA ID Team meeting.

In addition, the BLM posted a scoping letter describing the project and its location on the BLM's website (http://www.blm.gov/nm/st/en/fo/Taos_Field_Office.html) in order to invite public comment. The project description and scoping letter were also publicized via the Town Crier, an emailed newsletter, for the community of Dixon, New Mexico. The scoping comment period lasted from May 1 through May 31, 2013.

Twenty-three public comment letters were received regarding the proposed tower. Approximately half the letters were in favor of a cell tower in the proposed location and cited eagerness for increased communications coverage and better access to call emergency services, and the other half objected to the tower, raised some concerns on impacts from the cell tower, or were not in favor of the proposed location.

The primary issues brought up by the public were:

- Effects to visual and scenic values,
- Effects to the rural way-of-life from increased cell phone use,
- Potential health and safety effects from radiation and the dangers of cell phone use while driving on area highways, and
- Potential impacts to property values near the proposed site.

Based on these efforts and results, the following issues have been determined relevant to the analysis of this action:

1.4.1 Areas of Critical Environmental Concern

- *The proposed communications tower site is within the Lower Gorge ACEC and would be accessed by passing through the Copper Hill ACEC; how would this impact the relevant values of the ACECs?*

1.4.2 Wildlife and Special Management Species

- *How would the proposed communications tower impact wildlife and special-status species?*

1.4.3 Soils

- *How would construction of the communications tower and project-related vehicle traffic impact erodible soils in the area?*

1.4.4 Cultural Resources

- *Both ACECs list cultural resources as relevant and important; what resources, if any, were discovered during the cultural investigation and how would cultural resources of the area be impacted by the tower construction and project-related vehicle traffic?*

1.4.5 Visual and Scenic Values

- *The public raised concern with the visibility of the communications tower and its effect on landscape visual values in the rural area. What is the expected scale of the visual impacts?*

1.4.6 Public Health and Safety

- *The public raised concerns regarding effects of radiation from the cell tower, as well as the hazards of driving while using cell phones. How is the proposed tower regulated and what kind of public health and safety impacts can be expected for radio-frequency emissions?*

The following issues were raised during public scoping, and after careful consideration and deliberation, the BLM has dismissed them from detailed analysis along with the following rationale:

- **Impacts to property values:** During the scoping period, a few public comments expressed concern that the communications tower would affect property values near the proposed site and vicinity. The commenters cited examples of communications towers being built on roof tops in

urban settings, or immediately next door to, or immediately outside of a residential home, which then devalued the home or residence. However, the site associated with this Proposed Action is located in a rural area on public, BLM-managed lands and is not immediately adjacent to, above, or next to any private or residential property. The nearest private property line is approximately 1,500 feet (0.21 mile) away from the proposed site, and the nearest residential structure is more than a third of a mile away (1950 feet). Therefore, no potential impact to property values is expected because of the distance of the proposed tower from private property. The BLM has determined that this issue is not potentially significant and has therefore not been brought forward for analysis in the EA.

- **Disruption to traditional social relationships in the rural community:** A few commenters suggested that the increased use of cell phones in the community of Dixon, such as at communal meeting places such as the library and other places, would negatively impact traditional interpersonal communications or other social traditions enjoyed within the community. While the Embudo/Dixon area is a rural community, it is not currently devoid or isolated from technological advances or wireless communications. Currently, high-speed internet service is available, and many businesses and homes have wireless internet modems which transmit the wireless signal to smart phone users. In addition, fiber optic lines have been installed or are planned through Dixon which would increase this availability. Roaming cell phone service is also currently available for subscribers to certain networks. Therefore, the potential impact to the social fabric of the community from the Proposed Action would be a subtle, unquantifiable increment if even discernible. The BLM has determined that this issue is not potentially significant and has therefore not been brought forward for analysis in the EA.

Chapter 2 Description of Alternatives

2.1 Alternative A: Proposed Action

Commnet is proposing to install a LiteSite monopole tower to host three panel antennas that would provide mobile and data communication services to the Dixon-Embudo area. The proposed new disturbance would be 15 × 15 feet (225 square feet). Facilities installed on-site for the life of the project would include the 60-foot-tall monopole tower, a steel-framed square foundation, and a 6-foot-tall chain linked fence, topped by 12 inches of barbed wire, encircling the 15 × 15–foot base area (Figure 1). The proposed ROW would include the tower site location, the existing access road, and a staging area for temporary use (Figure 2). No ground penetration or concrete pad would be necessary for the construction of the LiteSite communications tower.

The tower site would be accessed via an existing 1-mile road across BLM land (see Figure 2), which is included in the ROW application. A LiteSite communication tower comes in small pieces and can be assembled on-site within a short period of time, without the use of a crane. Commnet proposes to use a small staging area just inside the fence off of NM 68. An all-terrain fork lift would bring the tower components via the existing access road from the staging area to the tower site, and the tower would be erected by the same piece of equipment. Total duration of construction would be approximately 5 days. The communications tower would be visited approximately six times per year for routine maintenance.

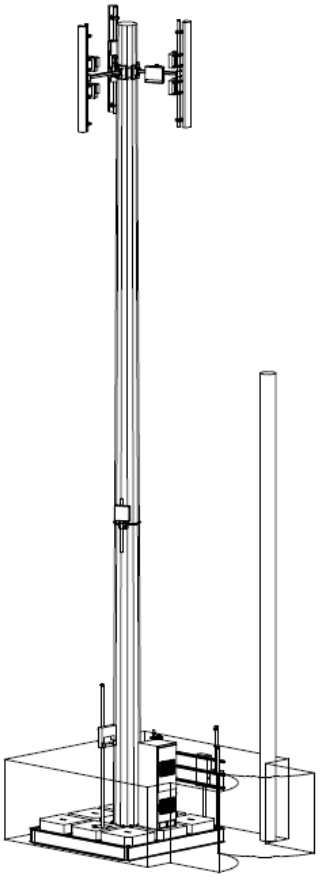

Figure 1. Proposed LiteSite monopole tower.

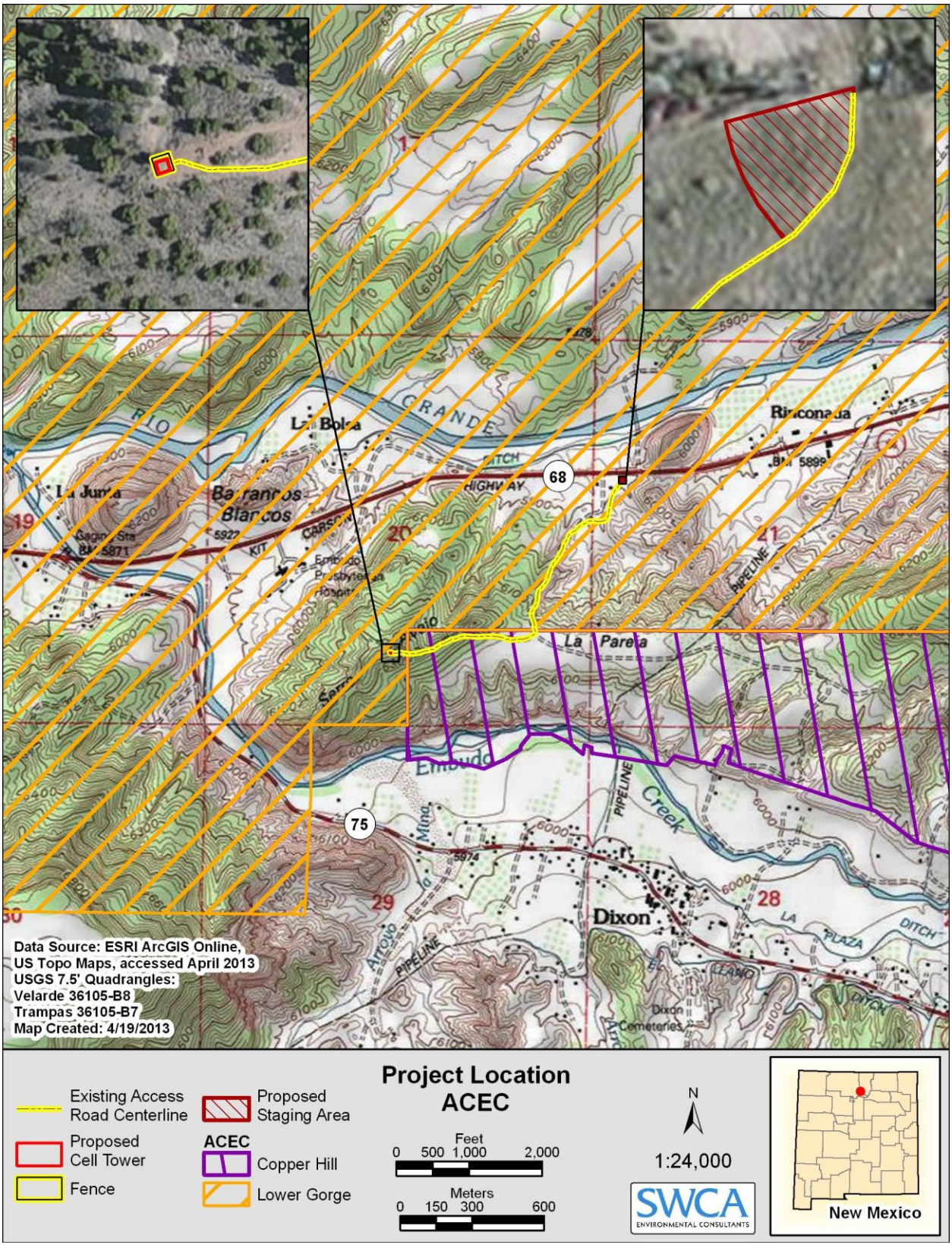

Figure 2. Project vicinity map with ACEC designation boundaries.

The following project design features have been developed to minimize or lessen potential impacts to resources from the Proposed Action and may be included as stipulations or conditions of approval in the ROW grant:

- A LiteSite tower system is constructed of multiple pieces that are transported to and then erected on-site, creating minimal disturbance.
- The tower would be constructed of unpainted galvanized steel so as to visually blend with the sky, thereby reducing its overall visual impact.
- The proposed tower would not contain any kind of lights, reflective features, or beacons.
- No concrete platform or foundation would be required.
- Vehicle traffic would be limited to light-weight all-terrain vehicles (ATVs) to access the tower site via the existing route. No semi-trucks, flatbed trailers, or concrete haulers would be needed past the designated staging area.
- All Federal Communications Commission (FCC) rules, guidelines, and requirements regarding radio-frequency transmissions and emissions would be adhered to.
- If at any time the tower is no longer being used for the stated purpose of hosting the communications equipment or is otherwise no longer needed, the tower would be dismantled at the expense of the applicant, all remnants would be transported away, and the affected area would be returned to its pre-project condition.

2.2 **Alternative B: No Action**

BLM NEPA Handbook H-1790-1 states that for EAs on externally initiated proposed actions, the No Action alternative generally means that the proposed activity would not be approved (BLM 2008:52). This option is provided in 43 CFR 3162.3-1(h)(2). Under this alternative, the BLM would not grant the ROW to the applicant and the proposed communications tower would not be built, the existing accessed road would not be used for the stated purpose, and the associated surface disturbance would not occur. The No Action alternative is presented for baseline analysis of resource impacts.

2.3 **Alternatives Considered but not Analyzed in Detail**

Alternatives to the Proposed Action are developed to explore different ways to accomplish the purpose and need while minimizing environmental impacts and resource conflicts and meeting other objectives of the RMP. Consistent with BLM NEPA Handbook H-1790-1, the agency "need only analyze alternatives that would have a lesser effect than the proposed action" (BLM 2008:80). Those with greater adverse resource impacts are not considered for this analysis.

Siting of communications towers begins with a Radio Frequency Engineer issuing a search ring, or a designated area within which a communications base station must be located with antennas at a certain height to effectively provide coverage in the desired area and work with other sites in the communications network. Commnet initiated this step and communicated the results of the search ring to BLM during alternatives development and the siting investigation.

Several alternative tower site locations in the vicinity of the Dixon area were examined by Commnet and the BLM.

The most feasible alternative location which would potentially locate the tower outside of any ACEC would be approximately 1.12 miles southwest of the proposed location (Section 30, Township 23 North, Range 10 East. Unlike the proposed 60-foot-tall monopole LiteSite tower, the alternative location would require a 150-foot or taller conventional tower with concrete foundation, creating greater resource impacts. The taller tower would be necessary in this location to get the signal over the mesa and down to the areas that Commnet is attempting to provide service for (Figure 3).

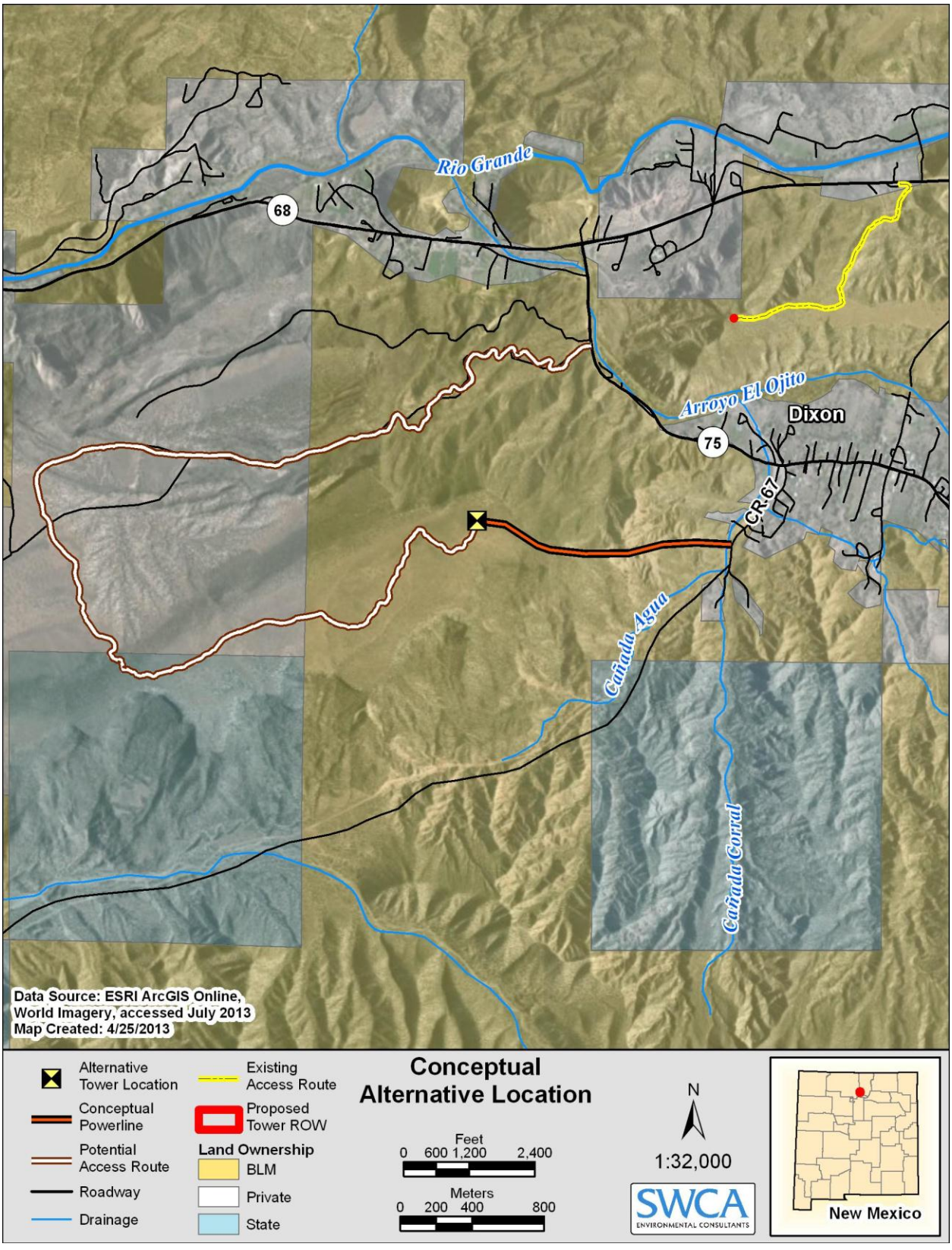

Figure 3. Alternative location considered but not brought forward for detailed analysis.

The alternative location would require a new power line, and the shortest potential route for this power line would be down the east side of the mesa. The power line would be approximately 0.90 mile long and would be built in full view of the village of Dixon.

In addition, in order to access the alternative site, vehicles traffic would have to use an existing 4.85-mile route. A portion of the route is dirt and gravel road until that ends and a two-track/ATV route begins. Portions of the road would have to be upgraded and rebuilt to enable project-related vehicle traffic to access the alternative site.

Because of the greater resource impacts associated with the additional infrastructure needed for the alternate location, this alternative was not brought forward for detailed analysis in this EA.

A few potential locations were examined south of Dixon; however, these sites would not adequately provide coverage to the areas west of Dixon and north along NM 68.

During public scoping, some commenters asked that the tower be located at least 5 miles from the town of Dixon. However, a location 5 miles away would not provide the coverage in the area needing better service and would therefore not meet the stated purpose and need of the project. Therefore, another potential location outside this radius has not been brought forward for detailed analysis.

As no additional alternative was identified that would meet the purpose and need and would result in equal or lesser impacts to resources; only the Proposed Action and No Action alternatives were brought forward for detailed analysis in this EA.

Chapter 3 Affected Environment

This chapter describes the environment that would be affected by implementing the alternatives described in Chapter 2. The resource issues under analysis, and those dismissed from analysis, were identified in Chapter 1. Aspects of the affected environment described in this chapter focus on the relevant major resources or issues/concerns. NEPA requires that the discussion of issues and concerns are commensurate with the potential impacts: "1500.4 (c) impacts shall be discussed in proportion to their significance." On the basis of Council on Environmental Quality guidance and BLM NEPA Handbook H-1790-1, the following discussion is limited to those resources that could be impacted to a degree that detailed analysis is warranted (40 CFR 1502.15) (BLM 2008:96). The following analysis includes ACECs, biological resources, soils, cultural resources, visual and scenic values, and public health and safety, as presented in Section 1.4.

3.1 Areas of Critical Environmental Concern

Section 202 of FLPMA requires the BLM to give priority to designation and protection of ACECs during the land use planning process. An ACEC is an administrative designation and pertains to a defined area within public lands where special management attention is needed to protect and prevent irreparable damage to relevant and important values or other natural systems or processes, or to protect human life and provide safety from natural hazards (BLM 1988). ACECs differ from other special management designations, such as wilderness areas, in that the ACEC designation, by itself, does not automatically prohibit other uses in the area.

The proposed tower site and temporary staging area are located in the Lower Gorge ACEC, and the tower site would be accessed by passing through a portion of the Copper Hill ACEC (see Figure 2).

3.1.1 Lower Gorge ACEC

The Taos RMP contains a complete description of the Lower Gorge ACEC (BLM 2012:109). The Lower Gorge ACEC encompasses 21,190 acres and contains relevant and important riparian vegetation, special-status species, wildlife habitat, and cultural values. The Lower Gorge ACEC is primarily located along the Rio Grande corridor. Management emphasis also includes recreation, particularly the rafting, boating, and wildlife viewing activities prevalent there. The ACEC is managed according to the management prescriptions in the Taos RMP.

Management prescriptions that apply to the Proposed Action are as follows:

- Exclude new ROWs except for road improvements to improve safety, or to provide access or utility service to non-federal land where no practicable alternative exists.
- Designate Visual Resource Management (VRM) Class I and II areas (the proposed tower site and staging area are within VRM Class II).

3.1.2 Copper Hill ACEC

The Copper Hill ACEC encompasses 17,200 acres and contains relevant and important riparian, fish and wildlife habitat, scenic, cultural, and watershed resource values. The ACEC is managed according to the management prescriptions in the Taos RMP.

The RMP contains a complete description of the Copper Hill ACEC (BLM 2012:104). Management prescriptions that apply to the Proposed Action are as follows:

- Exclude ROWs in the Lower Embudo zone.

- Complete a 100% survey of all cultural resources and nominate eligible sites to the National Register of Historic Places (NRHP).
- Designate VRM Class I, II, and III areas (the existing access road is within VRM Class I).

3.2 **Biological Resources**

A field reconnaissance of the project area was conducted by SWCA on March 28, 2013, and the full results are included in the biological evaluation in Appendix A. The field reconnaissance consisted of a pedestrian survey of the project area and a 100-foot buffer of the tower site and 50-foot buffer of the access road to evaluate vegetation and landscape features considered important to the potential occurrence of special-status plant and animal species.

3.2.1 Threatened and Endangered and Special-Status Species

The special-status species evaluated under this EA are described in the biological evaluation (see Appendix A) and consist of all the federal endangered, threatened, candidate, and proposed species for Rio Arriba County, as listed by the U.S. Fish and Wildlife Service (USFWS 2013a), and all state-listed species for Rio Arriba County (New Mexico Administrative Code 19.21.2.8.; New Mexico Department of Game and Fish 2012). In addition to federally and state-listed species, BLM sensitive species are also evaluated.

Of the 39 special-status species addressed in the biological evaluation, five are listed by the USFWS as threatened or endangered and are therefore protected under the authority of the ESA, as amended. Fourteen special-status species have the potential to occur in the project area. Full species lists and species descriptions are included in the biological evaluation (see Appendix A).

No special-status plants have the potential to occur within the project area. No federally listed threatened or endangered species have the potential to occur within the project area.

3.2.2 Wildlife and Migratory Birds

An SWCA biologist observed habitat utilization by five bird species—juniper titmouse (*Baeolophus ridgwayi*), common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), mountain bluebird (*Sialia currucoides*), and American robin (*Turdus migratorius*)—during the March 28, 2013, surveys, as described in the biological evaluation (see Appendix A). Based on a birding survey (Templeton 2007) a total of 143 bird species were counted over a 10 year period in the lower Embudo River valley. Sixty-four of these species are classified as resident, 20 of which are considered of special management concern. The complete list can be found at www.rioembudobirds.org (Templeton 2007).

The federal MBTA prohibits the taking, hunting, killing, selling, purchasing, etc., of migratory birds, parts of migratory birds, or their eggs and nests. Most bird species native to North America are covered by the MBTA. All birds observed in the project area are covered by the MBTA (USFWS 2013b). No active bird nests were observed in or near the project area. Other observed wildlife included dormant harvester ant (*Pogonomyrmex* spp.) mounds.

Wildlife species expected to inhabit the area include rabbits (*Lepus* spp. and *Sylvilagus auduboni*), coyotes (*Canus latrans*), ravens (*Corvus corax*), and various bat species, as well as big game species Rocky Mountain elk, mule deer, black bear, and mountain lion. Numerous small mammals, reptiles, amphibians, and insects cand be found and include prairie dogs, field mice, ground squirrels, kangaroo rats, small lizards and rattlesnakes. Seventy-three bird species are reported to breed in pinon-juniper habitat (Balda and Masters 1980). Not all these species will occur at any one site and the mix of species will vary greatly with stand characteristics. The bird species considered obligates or semi-obligates of pinon-juniper habitat include the gray flycatcher, ash-throated flycatcher, western scrub-jay, pinon jay

(*Gymnorhinus cyanocephalus*), juniper titmouse, bushtit, Bewick's wren, gray vireo, black-throated gray warbler, and lark sparrow. Total breeding density increases as total tree density increases, and large annual fluctuations in breeding densities may occur. Juniper seeds, when present in winter, are an important food source for a variety of thrushes (LaRue 1994). Sagebrush obligate or semi-obligate birds include Brewer's sparrow, sage sparrow and sage thrasher.

Riparian areas, such as the Rio Grande and Rio Embudo that lie on either side of the project area, represent corridors necessary for migration of amphibians, bats, migratory waterfowl, big game, and other wildlife species. The project area contains critical summer range for big game species such as Rocky Mountain elk and mule deer.

3.3 **Soils**

Project site soils are composed of the Tinaja-Rock Outcrop Complex (Natural Resource Conservation Service [NRCS] 2013). Tinaja soils are on hilly, gravelly, convex river terrace remnants, cuestas, and mesas, where elevations range from 5,800 to 7,800 feet. These soils consist of loam and sandy clay loams, with rooting depths over 60 inches. Parent materials of colluvium derived from sandstone comprise these soils. The climate is semiarid continental with annual precipitation ranging from 13 to 18 inches with the majority received during the period of July through September. Mean annual temperature is approximately 47 to 55 degrees Fahrenheit. The frost-free period ranges from 100 to 160 days. Vegetation composition is primarily blue grama (*Bouteloua gracilis*), sideoats grama (*B. curtipendula*), little bluestem (*Schizachyrium scoparium*), purple threeawn (*Aristida purpurea*), and yucca (*Yucca* sp.). Components of the soil are described below in Table 1.

Table 1. Soil Type and Erodibility Potential

Soil Type	Slope	Location	Natural Drainage Class	Water Movement in Most Restrictive Layer	Available Water (to a depth of 60 inches)	Meets Hydric Criteria	Erodibility (Kw, Kf* factor in surface layer)
Tinaja-Rock Outcrop Complex							
Tinaja (50%)	45%–75%	Hilly, convex river terrace remnants, cuestas, and mesas	Well-drained	Moderately high/high	Low	No	Low to moderate** (0.05, 0.37)
Rock outcrop (30%)	–	–	–	–	–	–	–

Source: Galetovic et al 1998; NRCS 2013.

* "Erosion factors" are shown in the table as the K factor (Kw and Kf). Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and Ksat. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water. Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments. Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 mm in size.

** Fine-textured soils that are high in clay have low K values (about 0.05–0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05–0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25–0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff.

3.4 **Cultural Resources**

Prior to the cultural resource field survey, SWCA and the BLM conducted Class I records searches both at the online Archaeological Records Management Section (ARMS) and New Mexico Historic

Preservation Division (HPD) databases on February 13, 2013, and at the BLM TFO on the same date (no additional surveys outside the ARMS database were found). Database records were searched for previously recorded archaeological sites and previously conducted archaeological surveys within 0.25 mile of the survey area. The HPD and NRHP database records search was also conducted on February 13, 2013, for properties on the NRHP and the State Register of Cultural Properties (SRCP) within 0.25 mile of the survey area.

Results of the records searches show that two previous investigations and one previously recorded site have been identified within 0.25 mile of the survey area. The one previously recorded site, LA 158064, is a historic structural site and is located outside the proposed project area and was not revisited during this investigation. No registered properties are located within 0.25 mile of the survey area.

A cultural resources pedestrian inventory was conducted by SWCA on February 20, 2013. Class III survey transects were spaced at 50-foot intervals east to west to provide coverage of the entire acreage contained within the proposed project area. Three archaeological sites were discovered and newly recorded during the investigation. All three sites would be avoided by the project activities. SWCA prepared a report of the findings and the BLM TFO Archaeologist reviewed the report and provided concurrence. No traditional cultural properties are known in the vicinity of the Proposed Action.

3.5 **Visual and Scenic Values**

The BLM manages scenic resources through a Visual Resource Management (VRM) program. Public lands are allocated a management class through the land use planning process and are classified from I to IV, with I being the most restrictive to development. The proposed tower site is in an area assigned as VRM Class II. The objective of Class II lands is to "retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the 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 the characteristic landscape" (BLM 1986:6).

Views of the project area were inventoried during a site visit that took place on June 4, 2013. Prior to the site visit, the BLM identified three key observation points (KOPs) that would represent the vantage points from where the proposed tower would be most visible and the largest numbers of viewers would be able to see the proposed tower (Figure 4). The first KOP (KOP 1) is on NM 75 near the intersection with NM 68 and is located approximately 0.59 mile (3,100 feet) northwest from the proposed site. KOP 2 is a little further to the east along NM 68 and is approximately 0.44 mile (2,300 feet) north from the proposed site. KOP 3 is on the west side of the town of Dixon and lies approximately 0.54 mile (2,857 feet) southeast from the proposed site. During the site visit, high-resolution photographs were taken of the proposed tower site from each KOP and photo simulations were completed to represent the approximate view once the tower is complete (see Section 4.5). In addition, visual contrast rating worksheets were completed to document the basic elements of form, line, color, texture, and scale found in the characteristic landscape (Appendix B).

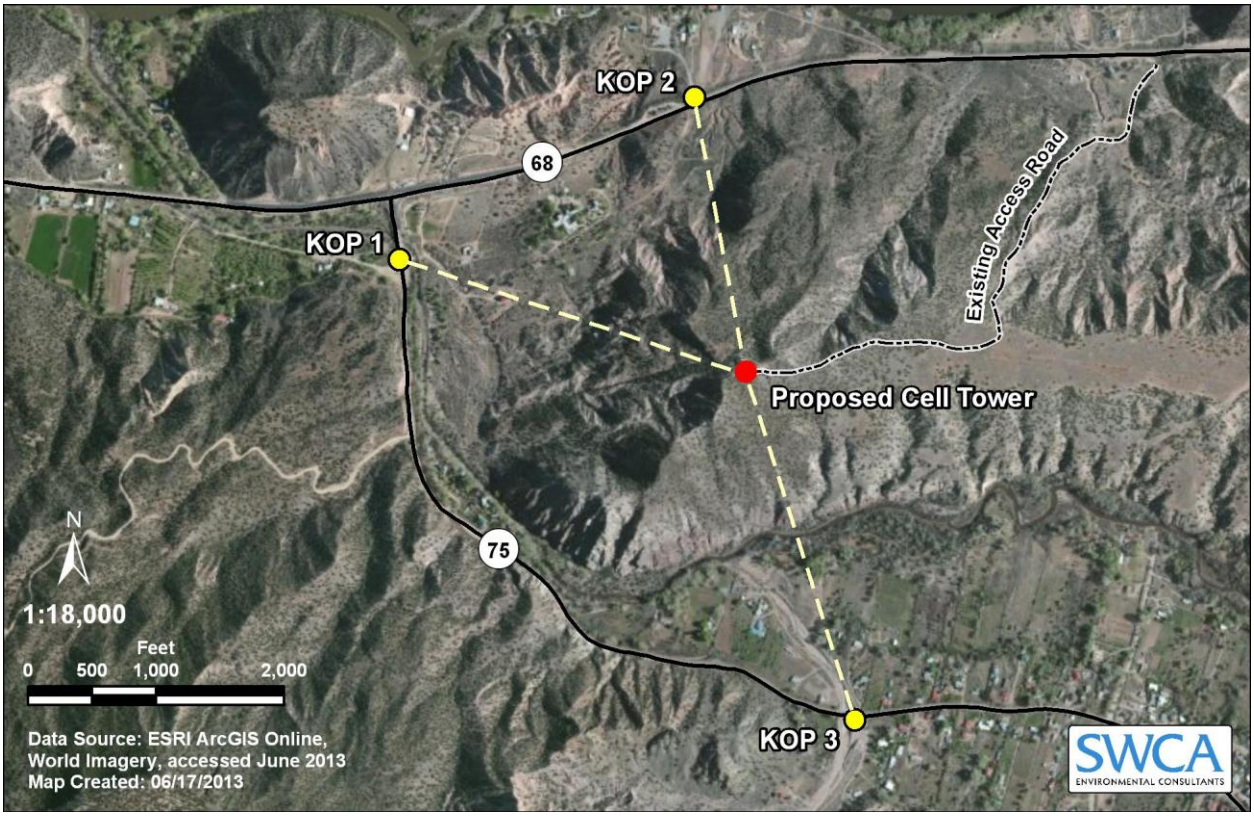

Figure 4. Representation of location of KOPs and line of site to proposed tower.

3.6 **Public Health and Safety**

During public scoping related to this effort, some commenters expressed concern over the potential effects to public health from the proposed tower and were concerned that the tower would emit harmful amounts of radiation, as a radio frequency (RF) emitter. These RF hazards are regulated by the FCC:

> The FCC is required by the National Environmental Policy Act of 1969, among other things, to evaluate the effect of emissions from FCC-regulated transmitters on the quality of the human environment. Several organizations, such as the American National Standards Institute (ANSI), the Institute of Electrical and Electronics Engineers, Inc. (IEEE), and the National Council on Radiation Protection and Measurements (NCRP) have issued recommendations for human exposure to RF electromagnetic fields. On August 1, 1996, the FCC adopted the NCRP's recommended Maximum Permissible Exposure limits for field strength and power density for the transmitters operating at frequencies of 300 kHz to 100 GHz. In addition, the Commission adopted the specific absorption rate (SAR) limits for devices operating within close proximity to the body as specified within the ANSI/IEEE C95.1-1992 guidelines. (FCC 2013)

As part of its compliance with FCC regulations and guidelines, Commnet performs an RF emissions study before the tower goes into service. This study shows that the proposed tower site would emit RF levels significantly below the maximum RF levels set by the FCC (the study is available in the project record and by request at the BLM TFO). The site would be managed to maintain the RF frequency below the public standard as defined by the FCC.

The nearest residence is more than 1,500 feet from the proposed tower site. The nearest town, Dixon, is nearly 1 mile from the site.

Chapter 4 Environmental Effects

The resource sections below identify the potential effects of the Proposed Action on the resources described in Chapter 3. The analysis includes direct, indirect, and potential cumulative impacts. A cumulative impact, as defined in 40 CFR 1508.7, is the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency (federal or non-federal) or person undertakes such other action. For this analysis, the only past actions identified that would contribute to the impacts disclosed from the Proposed Action are the existence of the other communications equipment on the hill top near the proposed site (Figure 5).

Figure 5. Photograph of the proposed tower site (stakes in ground indicate proposed site location), with other communications equipment in the background.

4.1 Alternative A: Proposed Action

4.1.1 Areas of Environmental Concern

Direct and Indirect Impacts

Impacts to the Lower Gorge ACEC

Under the Proposed Action there would be a direct impact to surface within the boundary of the Lower Gorge ACEC from the proposed tower's 15 × 15–foot (0.005-acre) footprint, representing less than 0.00003% of the total acreage within the ACEC. A small staging area, previously disturbed, would be used during construction, just inside the fence off of NM 68. The proposed site is more than 0.50 mile from the riparian area and therefore would not impact riparian vegetation, special-status species, recreation (river-related), or Wild and Scenic River status.

Construction of the 60-foot monopole tower would introduce a visual contrast to the landscape (see Section 4.5 for impacts to visual resources). However, the tower would not be visible from the riparian corridor, but instead would be most visible from passing motorists using NM 68 and NM 75. Indirect impacts to the auditory area would be temporary during the 5-day construction period and localized to the immediate vicinity of the tower site.

Potential impacts from the Proposed Action would not degrade the relevant and important values of the Lower Gorge ACEC because of the aforementioned distance from the riparian area on which these values depend. Since no other feasible alternative exists outside the ACEC that would meet the purpose and need, the Proposed Action would meet the criteria set out in the Taos RMP for granting of a ROW within the Lower Gorge ACEC.

Impacts to the Copper Hill ACEC

Direct impacts to the viewshed of the ACEC would be realized because the proposed tower would be visible from some areas of the Copper Hill ACEC. There would also be an indirect impact to the Copper Hill ACEC as vehicle traffic related to construction and maintenance would use the existing access route that passes through the Copper Hill ACEC; no new disturbance is proposed within the Copper Hill ACEC. Indirect impacts to the auditory area would likewise be temporary (from vehicles during construction, approximately 5 days) and localized.

The Lower Embudo zone of the Copper Hill ACEC is considered a ROW exclusion area (BLM 2012:104). The BLM TFO protects designated ACECs by limiting, as much as possible, surface disturbance within these areas. As mentioned in Section 3.1.2, the relevant and important values associated with this ACEC include riparian, fish and wildlife habitat, scenic quality, and cultural and watershed values.

Potential impacts from the Proposed Action would not degrade these relevant and important values of the Copper Hill ACEC because no disturbance is proposed within the ACEC, the proposed site and access road are well-removed from the riparian areas, and vehicle use through the ACEC would be temporary and sporadic. The proposed tower would create a visual impact, but no degradation to the scenic quality of the area is expected (see Section 4.1.5 below). In addition, no cultural sites would be impacted (see Section 4.1.4 below). Since no other feasible alternative exists outside the ACEC that would meet the purpose and need, the Proposed Action would meet the guidelines for granting of a ROW within the exclusion area set out in the RMP (BLM 2012:41).

Cumulative Effects

Currently there are several other communications poles and equipment occupying the hill top near the proposed site. The other facilities are much smaller in scale than the Proposed Action. These other facilities contribute to the overall impact to the Lower Gorge ACEC, as the site area is experiencing uses other than the recreational and scenic primary uses of the ACEC. Similarly, this communications equipment is also accessed via the existing road, which passes through the Copper Hill ACEC. Project-related vehicle traffic would add to that already using the existing route to reach the established facilities for maintenance. The existing road is also used sporadically by recreational ATV users.

4.1.2 Biological Resources

Direct and Indirect Impacts

Threatened and Endangered Species and Special-Status Species

Because of the small size of the project area and limited scope of project activities, the Proposed Action would not likely adversely affect any of the special-status species with the potential to occur in the project area. The Proposed Action would not directly impact or remove any potential habitat for listed species.

Under Section 7 of the ESA, as amended, the BLM is required to consult with the USFWS on any proposed action that may affect federally listed threatened or endangered species or species proposed for listing. SWCA conducted biological surveys of the Embudo site on March 28, 2013. No USFWS-listed threatened or endangered species or their habitats were found in the PPA during the biological surveys. BLM TFO staff has reviewed the Biological Evaluation for the Proposed Action and determined there would be no impacts to federally listed species. Therefore, under the ESA, no consultation with the USFWS is required.

Wildlife and Migratory Birds

Project activities are expected to occur outside the migratory bird breeding season (April through September). Because of the small size of the project area and limited scope of the project activities, the proposed project is not likely to adversely affect any wildlife species or migratory bird species with the potential to occur in the project area. If project activities occur during the breeding bird season, the Proposed Action has the potential to have a negative effect upon individual birds, eggs, young and/or the nesting habitat of ground nesting birds; however, there would be no noticeable impact to the population or to the species as a whole.

Cumulative Effects

The proposed project would increase the number of visits to the site (to conduct maintenance checks), which in addition to current instances of human disturbance from maintenance to existing communication and radio equipment located at the site, and other recreational use, will increase disturbance levels along the route and at the site that may prevent use of the area by some wildlife species sensitive to disturbance, such as big-game or large-bodied animals.

4.1.3 Soils

Direct and Indirect Impacts

The Proposed Action would result in direct soil surface disturbance to the 225-square-foot area of the communication tower footprint. Due to the LiteSite design there will be no ground penetration required during installation and therefore no impact to subsurface soils. The soils in the project area are well drained with low to moderate erodibility, moderate plasticity, and extremely gravelly texture; therefore, any potential erosion resulting from runoff from the tower site or soil compaction under the cell tower frame is expected to be minimal. There would also be minimal temporary impacts to soils during the 5-day construction phase due to increased vehicular traffic on the 1-mile access road.

Cumulative Effects

The proposed project would not have measurable cumulative effects on soil resources because no other reasonably foreseeable future actions or frequent other uses have been identified for the area that would contribute to disturbance or erosion of soils.

4.1.4 Cultural Resources

Direct and Indirect Impacts

Direct impacts to archaeological sites normally include alterations to the physical integrity of a cultural site. If a cultural site is significant for other than its scientific information, direct impacts may also include the introduction of audible, atmospheric, or visual elements that are out of character for the cultural site. For this Proposed Action, significant cultural sites (e.g., listed or eligible for listing on the NRHP) are being avoided.

Indirect impacts may include the introduction of audible, atmospheric, or visual elements that are out of character for the cultural site. The proposed communications tower would be visible from one of the newly discovered and recommended eligible sites. A potential indirect impact to eligible cultural sites from the Proposed Action is the increase in human activity during construction and routine maintenance. The Proposed Action is not known to physically threaten any traditional cultural properties, prevent access to sacred sites, prevent the possession of sacred objects, or interfere or otherwise hinder the performance of traditional ceremonies/rituals.

If avoidance measures are properly implemented, no significant impacts to NRHP-listed or eligible cultural resources are expected.

Cumulative Effects

The proposed project would not have measurable cumulative effects on cultural resources, primarily because few other past, present, or reasonably foreseeable future actions have been identified for the project area. Some communications equipment already exists on the hilltop near the proposed site, which adds to the overall human and industrial uses within the cultural landscape.

4.1.5 Visual and Scenic Values

Direct and Indirect Impacts

Photo simulations from the KOPs identified by the BLM for the subject area (Figure 6, Figure 7, and Figure 8) have been created to the best degree possible to depict existing conditions and visual impacts post-construction for the purpose of illustrating how the Proposed Action would affect the landscape as seen by the most frequent viewer groups.

The proposed communications tower may cause very minor contrast to the existing character of the landscape and, while visible to passing viewers, does not dominate the attention of the casual observer. The proposed tower would be slightly visible from passing motorists on NM 69 NM Hwy 75, and from some areas within and around the town of Dixon.

Figure 6. **Before and after photo simulation at KOP 1, junction of NM 68 and NM 75, facing southeast.**

Figure 7. Before and after photo simulation at KOP 2, from NM 68 in the Embudo area, facing south.

Figure 8. Before and after photo simulation at KOP 3, west edge of town of Dixon, facing north/northwest.

The visual resource contrast rating worksheets (see Appendix B) inventory the visual elements of the landscape, including form, line, color, and texture, and provide a contrast rating for each element that would result from the Proposed Action. The proposed monopole would not change the form of the landscape; therefore, the form contrast rating is none. For color, line, and texture, weak contrast is expected. The proposed tower would not be the only vertical element, as trees, power lines and poles, buildings, and roads are all visible from each KOP. The tower would be of unpainted galvanized steel, and of a gray, non-reflective finish color, which has been shown to be the most appropriate for blending with blue skies. Therefore, the contrast rating for the other three landscape elements, line, color, and texture, is weak. As noted in the Proposed Action, the proposed tower would not host a light, beacon, or any other reflective element that would attract attention of the casual observer. The proposed monopole tower is consistent with VRM Class II objectives, which state that the proposed change to the landscape may be visible but should not attract attention.

Cumulative Effects

There is existing communications equipment on the ridge in the vicinity of the Proposed Action. The proposed project would add another vertical visual element from viewpoints where the existing and

proposed equipment is visible at the same time. The existing equipment is difficult to see, but would be visible when standing directly on the ridge top of the proposed site or from selected distances.

4.1.6 Public Health and Safety

Direct and Indirect Impacts

The proposed communications tower would adhere to all FCC rules, guidelines, and regulations with regard to RF emissions. Therefore, no impacts to public health and safety from radiation are expected.

The hazards of using communications devices, particularly texting, while driving is well documented. Currently New Mexico is one of 11 states without a ban on text messaging by all drivers. While several bills proposing restrictions on cell phone use while driving cleared the legislative committee votes, no distracted driving legislation was approved during New Mexico's 2013 legislative session (Hands Free Info 2013). There are several communities/cities which have passed local ordinances restricting or banning use of communications devices while driving including Albuquerque, Santa Fe, Las Cruces, Gallup, Taos and Espanola.

The Proposed Action would improve the cell phone coverage in the Dixon and Embudo areas, which could indirectly impact the rate of use of cell phones while driving. Some cell phone service and wireless internet is already available in these areas so those that choose to use devices while driving likely already do so, and the increase related to the Proposed Action would be incremental.

Cumulative Effects

A few other antennas currently exist near the proposed tower site. However, the existing equipment is small in nature and would not produce even moderate levels of RF emissions. Therefore, even combined with the proposed tower, RF emissions are expected to be well below the maximum thresholds established by FCC rules and guidelines.

4.2 **Alternative B: No Action**

The BLM NEPA Handbook H-1790-1 states that for EAs on externally initiated proposed actions, the No Action alternative generally means that the proposed activity would not be approved (BLM 2008:52). This option is provided in 43 CFR 3162.3-1(h)(2). Under this alternative, the BLM would deny the proposed ROW. If the ROW is not granted, the proposed communications tower would not be constructed, project-related vehicle traffic would not use the existing access route, and the current coverage area for communications services would not be improved. The No Action alternative is presented for baseline analysis of resource impacts.

4.2.1 ACECs

There would be no effect to ACECs as a result of the No Action alternative because the ROW would not be granted and the proposed communications tower would not be constructed.

4.2.2 Wildlife and SMS

There would be no effect to any listed species or wildlife as a result of the No Action alternative because the ROW would not be granted and the proposed communications tower would not be constructed.

4.2.3 Soils

There would be no effect to soils as a result of the No Action alternative because the ROW would not be granted and disturbance to soils from construction of the proposed communications tower and associated vehicular traffic would not occur.

4.2.4 Cultural Resources

There would be no effect to cultural resources as a result of the No Action alternative because the ROW would not be granted and would not be visible from any area archaeological sites.

4.2.5 Visual and Scenic Values

There would be no effect to visual or scenic values as a result of the No Action alternative because the ROW would not be granted and the proposed communications tower would not be constructed.

4.2.6 Public Health and Safety

One issue identified during public scoping was the difficulty in communicating with and accessing emergency services because of the lack of adequate cell phone coverage in the rural areas that the proposed tower would serve. This lack of service would not be improved if the No Action alternative is chosen because the ROW would not be granted and the proposed communications tower would not be constructed.

Chapter 5 Consultation and Coordination

5.1 Summary of Consultation and Coordination

The BLM conducted consultation with area tribes during the public scoping period. Letters identifying the scope of the project and proposed location were sent to the following pueblos and tribes: Comanche, Hopi, Jicarilla Apache, Kiowa, Navajo, Ohkay Owingeh, Picuris, Pojoaque, San Ildefonso, Santa Clara, Taos, Tesuque, and Zia. No comments were received.

5.2 Summary of Public Participation

To be completed following the public comment period on the Draft EA.

5.3 List of Preparers

The following individuals reviewed or contributed to portions of this EA or supporting documentation.

Table 2. Contributors and Reviewers of this EA

Name	Agency/Organization, Title/Resource
Jason Romero, BLM TFO	Project Manager, Realty Specialist
Brad Higdon, BLM TFO	Planning and Environmental Coordinator
Tammi Torres, BLM TFO	Outdoor Recreation Planner, Visuals
Valerie Williams, BLM TFO	Wildlife Biologist
Merrill Dicks, BLM TFO	Archaeologist
Paige Marchus, SWCA	NEPA Coordinator, Visuals
Victoria Amato, SWCA	Planner
Heather Timmons, SWCA	Biologist
Chris Carlson, SWCA	Archaeologist
Ryan Trollinger, SWCA	GIS, Photo Modeling
Anne Russell, SWCA	Visual Inventory

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Appendix A. Biological Assessment

Appendix B. Visual Contrast Rating Worksheets

Form 8400-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 6/4/13

District Office: Farmington

Field Office: Taos

Activity (program): Right-of-Way Application

SECTION A: PROJECT INFORMATION

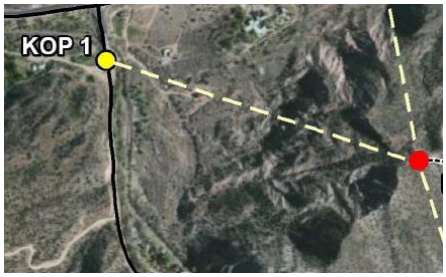
1. Project Name: Commnet Embudo Communications Tower

2. Key Observation Point: 1

3. VRM Class: II

4. Location
Township__23N___
Range__10E_____
Section____20_____

5. Location Sketch



SECTION B: CHARACTERISTICS LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Hills with rounded peaks, ridges	Irregular patches, scrub, sagebrush	Square/rectangular, linear
LINE	Horizon line, ridge lines, diagonal, vertical	Tree trunks, angular, edge effects	Fence lines, power lines, poles, pitched roof lines
COLOR	Tan, reddish brown, light brown	Dark green, light green, med green	Red, gray, brown, tan
TEX-TURE	Medium to high	Medium to course	Sparse buildings, med to fine

SECTION C: PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Linear, vertical
LINE	No change	No change	Linear pole
COLOR	No change	No change	Gray
TEX-TURE	No change	No change	Smooth

SECTION D. CONTRAST RATING ___SHORT TERM X_LONG TERM

1. DEGREE OF CONTRAST

ELEME	FEATURES	LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEME	FORM				X				X				X
	LINE				X				X			X	

2. Does the project design meet visual resource management objectives? _x_Yes ___No (explain on reverse side)

3. Additional mitigating measures recommended
____Yes _x_No (Explain on reverse side)

Evaluator's Names Anne Russell, Paige

	COLOR				X				X			X		Marchus Date June 4, 2013
	TEXTURE				X				X			X		

SECTION D. (Continued)

Comments from item 2.

The change to the landscape is visible but does not attract attention. Contrast to existing elements is weak. Meets VRM Class II objectives.

Additional Mitigating Measures (See item 3)

Proposed monopole is the lowest height that would still meet project objectives. Pole and equipment would remain a non-galvanized steel color so as to blend with the sky and not be reflective. No lights, beacons, or reflectors would be on the monopole.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 6/4/13

District Office: Farmington

Field Office: Taos

Activity (program): Right-of-Way Application

SECTION A: PROJECT INFORMATION

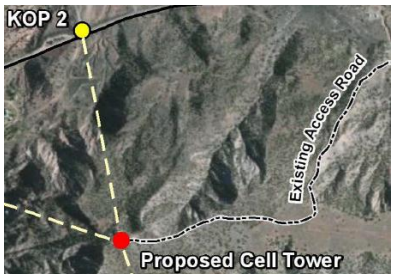
1. Project Name: Commnet Embudo Communications Tower

2. Key Observation Point: 2

3. VRM Class: II

4. Location
Township__23N___
Range__10E_____
Section____20_____

5. Location Sketch



SECTION B: CHARACTERISTICS LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Rounded hills, angular ridges	Irregular patches, scrub, sagebrush	Linear
LINE	Horizon line, angular, vertical	Road edge effects	Vertical and horizontal, fence poles, two-track road, linear
COLOR	Tan, reddish brown	Medium to light green, yellow	Tan, dark green, dark brown
TEX-TURE	Medium	Medium to fine	Coarse

SECTION C: PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Linear, vertical
LINE	No change	No change	Linear pole
COLOR	No change	No change	Gray
TEX-TURE	No change	No change	Smooth

SECTION D. CONTRAST RATING ___SHORT TERM X_LONG TERM

1. DEGREE OF CONTRAST	FEATURES												2. Does the project design meet visual resource management objectives? _x_Yes ___No (explain on reverse side) 3. Additional mitigating measures recommended ____Yes _x_No (Explain on reverse side)
	LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
ELEMENTS	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	
FORM				X				X				X	

	LINE				X				X			X	Evaluator's Names Anne Russell, Paige Marchus Date June 4, 2013
	COLOR				X				X			X	
	TEXTURE				X				X			X	

SECTION D. (Continued)

Comments from item 2.

The change to the landscape is visible but does not attract attention. The contrast rating to landscape elements is weak. Meets VRM Class II objectives.

Additional Mitigating Measures (See item 3)

Proposed monopole is the lowest height that would still meet project objectives. Pole and equipment would remain a non-galvanized steel color so as to blend with the sky and not be reflective. No lights, beacons, or reflectors would be on the monopole.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

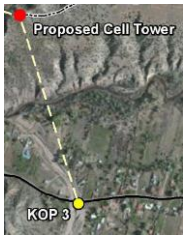
Date: 6/4/13

District Office: Farmington

Field Office: Taos

Activity (program): Right-of-Way Application

SECTION A: PROJECT INFORMATION

1. Project Name: Commnet Embudo Communications Tower	4. Location Township__23N___	5. Location Sketch 
2. Key Observation Point: 3	Range__10E_____	
3. VRM Class: II	Section____29_____	

SECTION B: CHARACTERISTICS LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	High hills, steep	Patchy, irregular, round	Rectangular, linear
LINE	Horizon line, angles	Edge effects down hills, tree-trunks-angles	Vertical, straight, horizontal buildings,
COLOR	Light tan, tan, reddish tan, grey	Dark, medium, and light greens	Light blue, reddish tan, gray, tan, dark brown, dark tan, white
TEX-TURE	Coarse	Sparse to medium	Medium

SECTION C: PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Linear, vertical
LINE	No change	No change	Linear pole
COLOR	No change	No change	Gray
TEX-TURE	No change	No change	Smooth

SECTION D. CONTRAST RATING ___SHORT TERM X_LONG TERM

1. DEGREE OF CONTRAST		FEATURES											
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEME	FORM				X				X				X
	LINE				X				X			X	

2. Does the project design meet visual resource management objectives? _x_Yes ___No (explain on reverse side)

3. Additional mitigating measures recommended
____Yes _x_No (Explain on reverse side)

Evaluator's Names Anne Russell, Paige

	COLOR				X				X			X		Marchus Date June 4, 2013
	TEXTURE				X				X			X		

SECTION D. (Continued)

Comments from item 2.

The change to the landscape is visible but does not attract attention. The contrast rating to the existing landscape is weak. Meets VRM Class II objectives.

Additional Mitigating Measures (See item 3)

Proposed monopole is the lowest height that would still meet project objectives. Pole and equipment would remain a non-galvanized steel color so as to blend with the sky and not be reflective. No lights, beacons, or reflectors would be on the monopole.