

Initial Study

**UP 11-002/Vista Towers LLC
Telecommunications Facility
Crowley Lake, California**

October 2011

PREPARED BY:

**Mono County Community Development Department
Post Office Box 347
Mammoth Lakes, CA 93546
(760) 924-1807**

INITIAL STUDY

I. INTRODUCTION

The California Environmental Quality Act (CEQA) requires public agencies to consider the effects that development projects will have on the environment. The Mono County Community Development Department has prepared an Initial Study to identify potential environmental impacts related to this project. Significant environmental effects are not anticipated if the project is carried out as proposed and designed.

II. PROJECT INFORMATION

1. Project Title:

UP 11-002/Vista Towers LLC Telecommunications Facility

2. Lead Agency Name and Address

Mono County Community Development Department
Planning Division
P.O. Box 347
Mammoth Lakes, CA 93546
(760) 924-1800
Contact Person: Heather deBethizy

3. Project Sponsor's Name and Address:

Vista Towers LLC
10161 Broadview Place
N. Tustin, CA 92705
(714) 856-1000
Contact Person: Robert MacLachlan

4. Property Owners:

Los Angeles Department of Water and Power
300 Mandich Street
Bishop, CA 93514

5. General Plan Land Use Designation/Zoning:

Open Space (OS)

6. Other Public Agencies Whose Approval May Be Required:

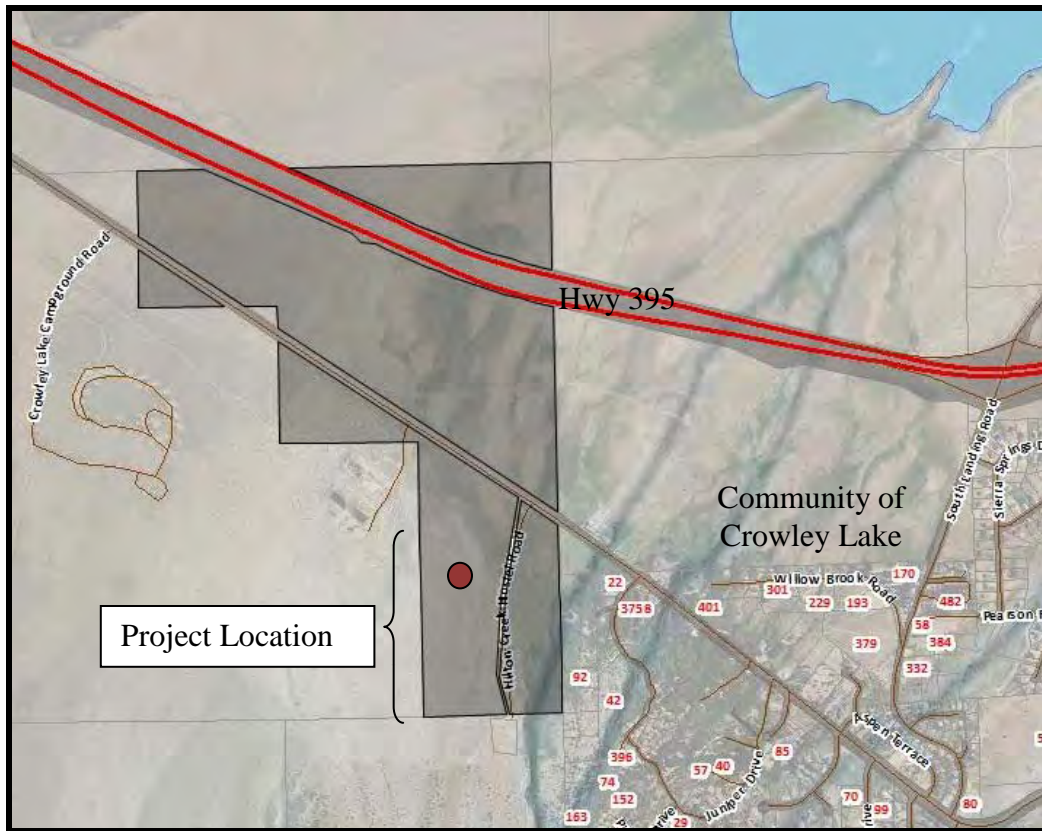
Long Valley Fire Protection District
Compliance with Fire Standards and Access Requirements
Building Permit Approval

Mono County Department of Public Works:
Compliance with Mono County Road Standards and Fire Safe Standards
Road Maintenance Agreement
Grading Permit

Mono County Department of Environmental Health:
Hazardous Materials Business Plan (for propane tank)

7. Description of Project:

The proposed project is located between the communities of Crowley Lake and McGee Creek, on a 251.39± acre parcel (APN 060-110-002) on the west side of Hilton Creek Trail. The property is currently largely undeveloped with the exception of Crowley Lake Drive, which bisects the middle portion of the property, six power/telecommunications poles south of Crowley Lake Drive, US 395, which cuts across the northeast corner of the property, and Hilton Creek Trail, a dirt road, in the southeast portion of the parcel.



Proposed Project Location, APN 060-110-002

Use Permit Application 11-002/Vista Towers LLC would allow for the development, operation, and maintenance of a wireless telecommunications facility on the parcel. The site would provide cell phone coverage to the communities along Crowley Lake Drive and north and south along US 395.

The wireless facility would be located on a 2400 square foot leased area located in the southern portion of the parcel (see Figures 1 and 2, Site Plan and Site Detail). The lease area would be surrounded by a 6-foot tall, 8-inch thick solid wall, with a 12-foot wide solid metal gate. The 40' x 60' lease area would include one multi-carrier 60-foot wireless communications monopole or monopine designed as a collocation facility, engineered to hold up to three carriers' antenna arrays. The monopole or monopine, equipment shelters, and wall will be painted colors that blend in with the surrounding area, likely a dark brown or dark grey/green. Disturbed areas will be revegetated in compliance with Mono County landscaping and revegetation requirements.

The monopole or monopine will have three proposed carrier antenna sectors with four proposed antennas per sector (see Figure 3, Site Elevations). The monopole would be 60 feet tall with the centers of the antenna arrays located 39 feet, 48 feet, and 57 feet above ground level. The monopine would be 60 feet tall, with the pole 56 feet tall, and the center of the antenna arrays located at 35 feet, 44 feet, and 53 feet above ground level. Each antenna mount will allow for up to four panel type antennas on each of three separate sectors facing approximately 120 degrees apart. The actual mounting position, number of antennas, and heights on the towers will be finalized following completion of leases with carriers; those details will be reflected on building permit drawings.

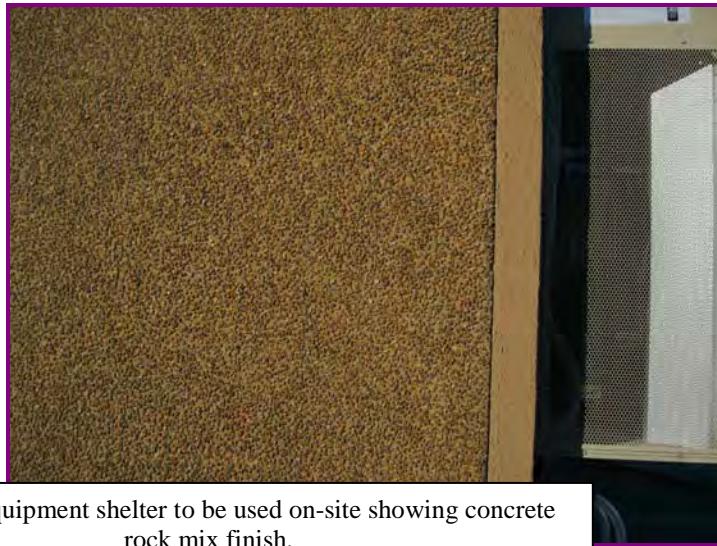
The fenced lease area has been designed to include the following (see Figure 2, Site Detail):

- 12' x 16' Verizon pre-fabricated equipment shelter with an 8' x 4' concrete stoop;
- 6'8" x 11' pre-fabricated equipment shelter with a 3' x 6' concrete stoop;
- 12' x 20' pre-fabricated equipment shelter with a 4' x 8' concrete stoop;
- UL2200 certified 60 kw standby propane generator on a 6' x 13' concrete pad;
- 499 gallon vertical propane tank on a 5' x 5' concrete pad;
- telecommunications boxes mounted on the inside of the wall; and
- one 60' monopole/monopine.

The equipment shelters will be prefabricated shelters with a concrete rock mix finish painted a dark brown color. The wall around the leased area will be a 6-foot tall concrete block wall with a 12-foot wide solid metal gate.



Sample of equipment shelter to be used on-site. The door and vent covers will be painted a dark color to match the siding color. Shelters will be set on concrete pads.



Sample of equipment shelter to be used on-site showing concrete rock mix finish.

Access will be provided from Hilton Creek Trail, an unpaved road that traverses the lower southeastern portion of the parcel. The proposed on-site access will be a 12-foot wide gravel road with turnouts (see Figure 2, Site Detail).

The parcel will connect to existing electrical power and telephone service. All new utility lines will be installed underground in compliance with Mono County Land Development Regulations; a utility trench approximately 6 feet wide and 400 feet long will be required to connect the facility to the existing power lines. No other utilities will be required for the site.

Backup batteries will power the equipment for 6-8 hours during power outages. During longer outages, the on-site propane generator will be used by Verizon. Project conditions will limit the project to one on-site generator. The generator model to be used produces an average of 67.1 decibels (dBA) of sound at a distance of 23 feet. The generator meets all EPA and California Air Resources Board emissions standards.

The site will include information signs as required by governing authorities; signs will be placed on the metal gate. All signs will comply with current FCC and OSHA guidelines. Sign dimensions, text size and placement and coloring will meet current ANSI standards for information signage.

Once construction is complete, the site will be unmanned. There will be no regular hours of operation and virtually no traffic to the site. The site is entirely self-monitored and alerts personnel to equipment malfunctions or breaches of security. Routine maintenance visits will occur once or twice per month for each carrier, unless there is an emergency. Maintenance may occur less frequently in winter months and service providers may utilize snowmobiles or Over snow vehicles (OSV) to access the site when there is snow on the ground.

8. Surrounding Land Uses and Setting:

The property is located between the communities of Crowley Lake and McGee Creek, on the west side of Hilton Creek Trail (see Figures 1 and 2). Surrounding land uses include:

West: The parcel to the west is a large parcel of public land managed by the Bureau of Land Management (BLM). The parcel is designated Resource Management (RM) and includes the Hilton Creek Community Service District sewer ponds and a BLM campground.

South: Parcels to the south are public land managed by the Inyo National Forest (INF) for dispersed recreation.

East: Parcels to the east include a large parcel owned by the Los Angeles Department of Water and Power (LADWP) that is designated Open Space (OS) and 6 smaller private parcels designated for single family residential use [3 parcels designated Estate Residential (ER), 3 parcels designated Single Family Residential with a 15,000 square foot minimum parcel size (SFR 15,000)].

North: The parcel to the north is a large parcel owned by the Los Angeles Department of Water and Power (LADWP). The parcel is designated Open Space (OS) and is used for grazing.

III. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the discussion on the following pages.

- | | | |
|---|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | | <input type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities/Service Systems | |
| <input type="checkbox"/> Mandatory Findings of Significance | | |

IV. DETERMINATION:

On the basis of this initial evaluation:

I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

*I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.*

I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature _____ Date _____ Name Scott Burns

V. DISCUSSION OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

I. AESTHETICS. Would the project:

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. The project site is located west of the community of Crowley Lake, on a low glacial moraine at the base of the steeply sloping eastern flank of the Sierra Nevada mountains. The project site on top of the moraine is open and undeveloped, covered with low-growing Big Sagebrush Scrub. The sagebrush scrub extends to the base of the Sierra slopes. There are no trees on the project site, or in much of the surrounding area (see Figure 4, Existing Site Photos).

Vegetation to the north, west and south of the lease area is similar to that on-site, low-growing sagebrush scrub (see Figure 4, Existing Site Photos). There are some pine and pinon trees located at the base of the Sierra Nevada to the south of the lease area; due to the gain in elevation between the lease area and the base of Sierra Nevada, the trees located there do not appear the background of scenic vistas when looking towards the site. To the east of the lease area, east of the eastern foot of the moraine, there is a solid line of aspen trees located along Hilton Creek. Views from the west looking east across the project site will have those trees in the background (see Figure 4, Existing Site Photos). Depending on the time of year, and whether the aspen are in leaf, the background will either be green, in contrast to the background from most other angles, or grey/brown, more similar to the background from other angles.

The overall impression, looking towards the site from most vantage points, is of an open site with low-growing vegetation that is uniform in cover, size, and color. Depending on how close the viewer is to the site, the existing utility poles towards the front (north) end of the moraine are visible in the foreground, as a manmade element in an otherwise natural-appearing landscape.

Most of the facility, including the wall surrounding the lease area and the equipment inside the lease area, would not be visible from surrounding areas due to the topography of the moraine and the location of the lease area in a depression on top of the moraine (see Figure 5, Photo Simulations). Portions of the gravel access road would be visible from some directions but as surrounding vegetation grows would be less visible. The project has been designed to ensure that the facility blends into the surrounding environment and backdrop of adjacent hills to the greatest extent possible (see Figure 5, Photo Simulations). The monopole or monopine, equipment shelters, and wall will be painted colors that blend in with the surrounding area, likely a dark brown or dark grey/green. Disturbed areas will be revegetated in compliance with Mono County landscaping and revegetation requirements.

The monopole or monopine would be visible from several viewpoints in the surrounding area, increasingly less so from farther distances. The project is approximately ½ mile from U.S. Highway 395, which is designated as a scenic highway. Therefore, the project is outside the Scenic Combining District which regulates development in those districts. There are two scenic turn-outs located on Hwy 395 between the project location and Crowley Lake, one north bound and one south bound.

The monopine would likely have a greater visual impact, because there are no trees on-site and few trees in the background when the site is viewed from most directions. The contrast of the tree against the surrounding background would be greater than that of the pole with arrays against the surrounding background. In addition, there are six existing power poles on the site, located between the lease area and Crowley Lake Drive, which create an existing impression of commercial/industrial development in the foreground. The monopole would likely blend in better with the existing utility poles than the monopine would. The Photo Simulations in Figure 5 show both the monopole and the monopine from several surrounding points in order to compare the visual impact of the pole and the pine.

Although the monopole or monopine will be visible from most vantage points in the surrounding area, the design of the project will reduce visual impacts to scenic vistas to a less than significant level.

- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The parcel on which the project site is located is not within a state-designated scenic highway corridor. It is an open and undeveloped parcel with low-growing sagebrush scrub, no trees, and numerous low small-sized boulders. There are no other scenic resources on-site.

- c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. As noted above in Item 1a, the project site is located west of the community of Crowley Lake, on a low glacial moraine at the base of the steeply sloping eastern flank of the Sierra Nevada mountains. The project site on top of the moraine is open and undeveloped, covered with low-growing Big Sagebrush Scrub. The sagebrush scrub extends to the base of the Sierra slopes. There are no trees on the project site, or in much of the surrounding area (see Figure 4, Existing Site Photos).

The overall impression, looking towards the site from most vantage points, is of an open site with low-growing vegetation that is uniform in cover, size, and color. Depending on how close the viewer is to the site, the existing utility poles towards the front (north) end of the moraine are visible in the foreground, as a manmade element in an otherwise natural-appearing landscape.

Most of the facility, including the wall surrounding the lease area and the equipment inside the lease area, would not be visible from surrounding areas due to the topography of the moraine and the location of the lease area in a depression on top of the moraine (see Figure 5, Photo Simulations). Portions of the gravel access road would be visible from some directions but as surrounding vegetation grows would be less visible. The project has been designed to ensure that the facility blends into the surrounding environment and backdrop of adjacent hills to the greatest extent possible (see Figure 5, Photo Simulations). The monopole or monopine, equipment shelters, and wall will be painted colors that blend in with the surrounding area, likely a dark brown or dark grey/green. Disturbed areas will be revegetated in compliance with Mono County landscaping and revegetation requirements.

The project will require the removal and/or disturbance of approximately 22,800 square feet of low-growing Big Sagebrush Scrub (Lease area=2,400 square feet, utility trench 6' x 400'=2,400 square feet, access road 12' x 1500'=18,000 square feet). Of that total area, the 2,400 square feet for the utility trench will be revegetated; the areas within the 2,400 lease area not covered by buildings or concrete stoops will be covered with weed barrier fabric and 3 inches of gravel; and the 18,000 square feet for the access road will be covered with gravel and any adjacent disturbed areas will be revegetated.

In compliance with General Plan policies and the County's Land Development Regulations, the project has been designed to ensure that the facility blends into the overall existing visual character of the area. Paint colors for structures, equipment, and fencing will be dark, matte colors. Outdoor lighting will be limited to that necessary for security and maintenance and will be shielded in compliance with the County's Dark Sky Regulations. Utilities will be installed underground from an existing pole on-site. No signs will be permitted other than required FCC signage at the facility, which will be small painted metal signs attached to the fencing. Grading and site disturbance will be minimized. Disturbed areas will be revegetated. The project has been designed to reduce potential visual impacts to the site and its surroundings to less than significant levels.

- d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

No Impact. The project site is in an open area, adjacent to a developed community with existing minimal outdoor lighting. On-site topography will shield much of the proposed development from surrounding roads and parcels. The equipment shelters, fence, and monopole/monopine will be painted dark, matte colors in order to blend into the surrounding environment and avoid glare. The

project will have outdoor security lighting that must comply with the County's Dark Sky Regulations (Land Use Regulations Chapter 23). Lighting must be shielded and directed so that the light shines only within the lease area and only on the structure or equipment requiring the light for security and/or maintenance. Outdoor lights must also not have any type of automatic or motion sensitive on-off switch.

Aesthetics Mitigation Measures

No mitigation measures are proposed.

II. AGRICULTURE RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The project site is adjacent to the community of Crowley Lake, between US 395 and the Sierra Nevada mountains. There are no agricultural lands, or any lands with an agricultural designation, within the project vicinity.

- b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The project site is adjacent to the community of Crowley Lake, between US 395 and the Sierra Nevada mountains. There are no agricultural lands, or any lands with an agricultural designation, within the project vicinity.

- c) Conflict with existing zoning for agricultural use, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The project site is adjacent to the community of Crowley Lake, between US 395 and the Sierra Nevada mountains. There are no agricultural lands, or any lands with an agricultural designation, within the vicinity. There are also no forest lands, timberlands, or timberland production zones, as defined in the code sections stated above, within the project vicinity.

- d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. There are no forest lands, as defined in the code sections in Item c, within the vicinity of the proposed project.

- e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The project site is adjacent to the community of Crowley Lake, between US 395 and the Sierra Nevada mountains. There are no agricultural lands, or any lands with an agricultural designation, within the vicinity. There are also no forest lands, timberlands, or timberland production zones, as defined in the code sections stated above, within the project vicinity.

Agriculture Resources Mitigation Measures

No mitigation measures are proposed.

III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- a) Conflict with or obstruct implementation of the applicable air quality plan?
No Impact. During normal operations, the project will not generate emissions and therefore would not conflict with the air quality plan. Vehicular travel to the site will be minimal (one or fewer maintenance visits to the site per month). Use of the emergency generator will result in minimal emissions, which are in compliance with EPA and California Air Resources Board regulations (Generac, Statement of Exhaust Emissions). In addition, the use of the generator will be minimal, if at all.
- b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?
Less Than Significant Impact. Mono County is a state designated non-attainment area for ozone and PM10 (www.arb.ca.gov). The proposed wireless facility will not produce smoke or odors. Traffic will be minimal.

The project will require the removal and/or disturbance of approximately 22,800 square feet of low-growing Big Sagebrush Scrub (Lease area=2,400 square feet, utility trench 6' x 400'=2,400 square feet, access road 12' x 1500'=18,000 square feet). Of that total area, the 2,400 square feet for the utility trench will be revegetated; the areas within the 2,400 lease area not covered by buildings or concrete stoops will be covered with weed barrier fabric and 3 inches of gravel; and the 18,000 square feet for the access road will be covered with gravel, minimizing the potential for erosion following the construction phase of the project. Potential erosion during construction will be addressed by erosion control requirements of the Mono County Grading Ordinance and the General Plan and by compliance with standard project conditions, e.g.:

- Throughout grading and construction activities, exposed soil shall be kept moist through a minimum of twice daily watering to reduce fugitive dust.
- Street sweeping shall be conducted when visible soil accumulations occur along site access roadways to remove dirt dropped by construction vehicles or dried mud carried off by trucks moving dirt or bringing construction materials.
- Site access driveways and adjacent streets will be washed if there are visible signs of any dirt track-out at the conclusion of any workday.
- During high wind conditions (i.e. wind speeds exceeding 25 mph), areas with disturbed soil will be watered hourly and activities on unpaved surfaces shall be terminated until wind speeds no longer exceed 25 mph.
- Storage piles that are to be left in place for more than 3 working days shall be: sprayed with a non toxic soil-binder; or covered with plastic; or revegetated until returned to use.
- Tires of vehicles will be washed before leaving the site and entering a paved road.
- Dirt on paved surfaces shall be removed daily to minimize generation of fugitive dust.
- Fiber sediment barriers shall be placed downgrade of all construction activities.

Application of these uniformly applied development standards will reduce potential impacts to less than significant levels; no mitigation will be required.

- c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?
Less Than Significant Impact. Mono County is a state designated non-attainment area for ozone and PM10 (California Air Resources Board, www.arb.ca.gov). The proposed wireless facility is not anticipated to contribute to those pollutant levels. The project will not have wood burning appliances. Traffic will be minimal. Disturbed areas will be revegetated or covered with gravel. See discussion under item b above.
- d) Expose sensitive receptors to substantial pollutant concentrations?
No Impact. The proposed wireless facility is not expected to create substantial pollutant concentrations.

- e) Create objectionable odors affecting a substantial number of people?
No Impact. The proposed wireless facility will not emit odors.

Air Quality Mitigation Measures

No mitigation measures are proposed.

IV. BIOLOGICAL RESOURCES. Would the project:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. The **Assessment of Biological Resources** prepared for the project included a CNDDDB records and literature search and an on-site survey. Survey work was conducted on August 13 and 19, 2011. The search area included buffers on all sides: a 150 foot wide corridor along the access road, a 300 foot wide corridor in the areas of the cut/fill 90 degree turn and at the t-bone at the facility entrance, and a buffer of 200 feet in all directions for the lease area.

PLANTS

The records and literature search indicated that eight rare plant species and one sensitive plant community occur within 15 miles of the project, in habitats that are similar to the montane scrub habitat in the project area (Paulus, p. 5). An additional species, the rock cress *Arabis cobrensis*, was included on the list of potential rare species, although it does not appear in CNDDDB records, because it occurs 5.8 miles north in similar vegetation (Paulus, p. 5). Rare plant species that could potentially occur at the proposed project include (for detailed information, see the **Assessment of Biological Resources** in Appendix A):

- ◆ Masonic rock cress (*Arabis cobrensis*)
- ◆ Long Valley milkvetch (*Astragalus johannis-howellii*)
- ◆ Mono milkvetch (*Astragalus monoensis*)
- ◆ Pinyon rock cress (*Boechera dispar*)
- ◆ Booth evening primrose (*Camissonia boothii ssp. boothii*)
- ◆ Booth hairy evening primrose (*Camissonia boothii ssp. intermedia*)
- ◆ Mono Lake lupine (*Lupinus duranii*)
- ◆ Foxtail theylypodium (*Thelypodium integrifolium ssp. complanatum*)

No rare plant populations were found during the field survey. The Assessment of Biological Resources concludes that “it is unlikely that the project will affect any sensitive plant communities of rare plant populations” (Paulus, p. 7).

WILDLIFE

The records and literature search indicated that four special status species could potentially occur at the site (Paulus, p. 8). Special status wildlife species that could potentially occur at the proposed project include (for detailed information, see the **Assessment of Biological Resources** in Appendix A):

- ◆ Greater sage grouse (*Centrocercus urophasianus*)
- ◆ Wolverine (*Gulo gulo*)
- ◆ White-tailed jackrabbit (*Lepus townsendii townsendii*)
- ◆ American badger (*Taxidea taxus*)

The report notes that “it is possible although unlikely (for reasons described below) that these species use the available habitats for foraging, roosting, or nesting” (Paulus, p. 8). The **Assessment of Biological Resources** prepared for the project provides the following information concerning potential special status species on-site (Paulus, pp. 9-11):

Greater Sage Grouse

Based upon an August 19 observation of the vegetation that surrounds the area of the nearest occupied lek site (3.4 miles northeast, as documented by CDFG, 2011c, FAA, 2007), sagebrush scrub that is available within the proposed project area (and across the moraine generally) appears to be similar to scrub occupied by greater sage grouse, in terms of shrub canopy density and composition. The near-lek reference stand, however, did not show evidence of recent fire and was not adjacent to pole lines or other perches that would be atypical of the relatively undisturbed sagebrush scrub habitat. Two wooden pole lines that cross perpendicular to the moraine north of the project provide perches at 40-50 ft height that oversee much of the project area. In all, five single and two double poles are situated on the moraine. Raptors that could pass through the area, and may use these pole tops and upper crossarms currently available on the moraine (roughly 2 m² of total perch area), would include bald eagle (*Haliaeetus leucocephalus*), which have been observed perching on poles near the airport six miles north (Jones & Stokes, 2001), Cooper's hawk (*Accipiter cooperi*), sharp-shinned hawk (*Accipiter striatus*), and Swainson's hawk (*Buteo swainsoni*). One adult and one juvenile raven were observed using these poles on August 19.

Greater sage grouse are specialist species that are more or less restricted to a single habitat type in Mono County, open sagebrush scrub (Mono County Planning Dept., 2001). Greater sage grouse are threatened by development that disturbs the habitat and disrupts breeding. Documented uses of sagebrush scrub habitat by members of the South Mono Basin Population Management Unit include foraging, nesting, and breeding (FAA, 2007). The nearest lek site and associated nesting and brooding area is located in open areas in expanses of relatively undisturbed sagebrush scrub north of U.S. Hwy 395. Habitat modifications, especially those associated with the U.S. Hwy 395 corridor and the long-standing pole line emplacements on the moraine where the project would occur, have reduced the likelihood that greater sage grouse use scrub resources available at the project site. The highway, the nearby BLM campground, and the Town of Crowley Lake have become significant barriers to emigration from the known use area to the north of the highway. Suitable sagebrush foraging and potential nesting habitat at the project site have thus become moderately isolated. Openings in the shrub canopy resembling local leks do not occur in the project area. The available cover is relatively short and may be insufficient for nesting. It is typical for females to disperse into scrub cover seeking relative isolation during nesting, choosing cover that averages near 50% (Casazza, et. al., 2005), or roughly twice the 20-30% cover density present within the project area. As there are significant ecological barriers to dispersal to the project area, and the habitat has for decades been compromised by emplacement of high poles that are not fitted with deterrence to perching by potential predators, it is unlikely that nesting sage grouse will be affected by the project. If any project element increases the local availability of high perches for predators, the overall availability of the entire area for foraging use will be further diminished.

Wolverine

Wolverine are typically found at higher elevations in the Sierra Nevada, where they occupy lodgepole pine and mixed conifer forest habitats. Neither of these habitats is available in the project area. However, the 1950 sighting at Crowley Lake, 2.6 miles to the east (CDFG, 2011c) in habitat that is broadly similar to the scrub habitat within the project area and at a similar elevation, is evidence that occurrence within the project area cannot be excluded. As discussed above for greater sage grouse, the available habitat for wolverine would be considered marginal for foraging, due to relatively high levels of nearby human development, and isolation of the scrub habitat. Loss of a small area of this scrub habitat would not have a significant effect on wolverine that may travel through the area.

Western White-tailed Jackrabbit

Western white-tailed jackrabbits are thought to inhabit a variety of montane habitats in the Eastern Sierra Nevada, most commonly those such as Big Sagebrush Scrub that have a significant shrub component. It is mainly nocturnal when foraging. It is very uncommon, but may migrate to lower elevation scrub during summer months in this region (C.A. Joseph and Assoc., 2007). Presence of this species within the project area could be detected during winter months by searching for forms in the snow. In other season, they would be more difficult to detect. No hare-sized burrows that could be appropriated by western white-tailed jackrabbit were found during the August survey, however pellets attributable to a rabbit or hare species were found. As discussed above for greater sage grouse, any project element that would increase the local availability of high perches for predators would further diminish the overall availability of the entire area for foraging use. Loss of a small area of scrub habitat would not have a significant effect on highly mobile hares that may travel through the area.

American Badger

American badger produce abundant sign in areas where they forage or reside in burrow-like holes. These highly mobile and adaptive animals occupy a wide range of habitats and elevations in California. The burrows created as badgers dig for small mammalian prey are relatively large and conspicuous. Badgers have been documented to occur within 15 miles of the project area, in scrub habitat near Mammoth Creek. No signs of badger were observed during the August 2011 survey. Small rodent burrows, which were often abundant, had not been recently excavated by badger within the survey area. The area that will be devegetated by the project represents a very small fraction of the regionally available habitat. As no records of recent and nearby sightings were uncovered, and no evidence of recent use of the project area was detected, it is very unlikely that the removal of potential foraging habitat will significantly affect any American badger.

The field survey did not find any suitable habitat on-site for a variety of other special status species, including bighorn sheep, various bats, northern goshawk, great grey owl, fisher, Sierra Nevada red fox, and species that require riparian or aquatic habitats. The report concludes that (Paulus, p. 12-13):

No rare plant species or sensitive vegetation communities will be affected by devegetation proposed during project implementation. The area of Big Sagebrush Scrub that will be disturbed represents a very small fraction of the large area of similar habitat in the region. Significant effect upon wildlife including special status species is very unlikely. There will be no effect on the availability of marginal scrub habitat to foraging greater sage grouse, unless the project creates high perches for predators. Unless the project creates new lighting or linear barriers to movement of mule deer, no important wildlife movement corridor is expected to be affected. There will be no effect on mule deer unless implementation causes loss of access to surface water and riparian resources, or increases highway crossings by altering the current patterns of resident and migratory movement.

The project includes the installation of a monopole or monopine cell tower, which could create perches for predators. Raptor spikes are available and will be installed on either a monopine or a monopole. However, industry experts believe that raptor spikes would not be as effective in a monopine and would detract from the visual aesthetic of a monopine (Cell Tress Inc.); raptor spikes on a monopole would “effectively eliminate raptors from being able to land on the pole and not affect the visual appearance “(Cell Trees Inc.). The installation of a monopole, rather than a monopine, would be environmentally preferable in terms of being able to install raptor spikes effectively.

The project location is comprised by ecological barriers for sage grouse habitat and nesting. Paulus’ report notes that “it is possible although unlikely (for reasons described above) that these species use the available habitats for foraging, roosting, or nesting... As there are significant ecological barriers to

dispersal to the project area, and the habitat has for decades been compromised by emplacement of high poles that are not fitted with deterrence to perching by potential predators, it is unlikely that nesting sage grouse will be affected by the project” (Paulus, p. 8-9).

The project has been designed to avoid impacts to wildlife; as a result, there will be no impacts to sensitive species, including mule deer. The project will have no lights other than outdoor security lighting that must comply with the County’s Dark Sky Regulations (Land Use Regulations Chapter 23), i.e, lighting must be shielded and directed so that the light shines only within the lease area and only on the structure or equipment requiring the light for security and/or maintenance. Outdoor lights must also not have any type of automatic or motion sensitive on-off switch.

The project will not create linear barriers to movement of the deer herd. The proposed access road for the project will be gravel, with no barriers to access. The only barrier to movement of the deer herd will be the 6-foot tall wall surrounding the lease site. The lease site will be located in the middle of the depression on top of the moraine; while this is an area thought to be used by the deer herd, there is sufficient room surrounding the lease site so that the deer can continue to use that general area and continue to access resources associated with the Hilton Creek riparian community and adjacent high-quality bitterbrush.

- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

No Impact. There are no sensitive natural communities, including riparian habitat or wetlands, within the immediate vicinity of the project site. Hilton Creek, with its associated riparian habitat, is approximately 900 feet east of the project site. The *Assessment of Biological Resources* prepared for the project notes that the Hilton Creek riparian corridor, and associated resources to the north and east of the project site, provide important resources for deer (Paulus, p. 7). Bitterbrush, an important browse species for deer, growing near the Hilton Creek riparian corridor is taller than the mostly stunted specimens growing on top of the moraine and shows evidence of heavy browsing by deer (Paulus, p. 3). In addition, there is one long-standing ditch-like diversion of Hilton Creek, north of the project site, at the foot of the moraine, which is perennially watered and has associated riparian vegetation. The project will not result in any direct impacts to riparian areas.

The project will be located in a depression on top of the moraine, approximately 10 feet below the surrounding topography. Any runoff that could be channelized by the solid concrete block wall surrounding the lease area will remain on-site, in the immediate area surrounding the lease site. The majority of the disturbed areas will either be revegetated or covered with gravel, which provide an adequate area for stormwater infiltration so that off-site erosion and siltation do not occur. Standard erosion control BMPs will be implemented during the construction phase to ensure that erosion or siltation does not occur. The project will not result in indirect impacts to riparian areas.

- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The National Wetlands Inventory does not indicate the presence of wetlands on the project site or within the immediate vicinity of the project site. In addition, the *Assessment of Biological Resources* prepared for project site notes that “the entire survey area was xeric at the time of site assessment, and no other potentially or seasonally mesic habitats (e.g. wetland swales, ephemeral stream beds) were signaled by shifts in the species assemblage or otherwise detected within the project area” (Paulus, p. 1).

- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant Impact. The project site is within the migration corridor used by the Round Valley deer herd. The *Assessment of Biological Resources* prepared for the project provides the following information concerning use of the site by mule deer (Paulus, pp. 11-12):

Mule deer are considered important harvest species by the CDFG. Mule deer herds in Mono County are defined by their winter ranges, where they migrate to lower elevations on the Eastern Sierra to forage among pine forest, pinyon-juniper woodland, and sagebrush scrub habitats. The location of the project site is generally within the migrational corridor used by the Round Valley Herd. Scrub habitats, especially those with a highly palatable browse component, provide crucial resources for “resident” adult reconditioning and fawn survival in late spring through early fall months (Monteith, et. al., 2009).

Characteristics of the vegetation at the project site meet the habitat requirements for mule deer that enter the area to hold or forage as residents, or who pass through the area during normal migration. Bitterbrush, an important browse species, is present and would be affected by the project. However, the bitterbrush available within the project area (subspecies *glandulosa*) appears to be used with far less intensity than bitterbrush that is growing immediately offsite around the foot of the moraine (mainly subspecies *tridentata*). The main use of the project area by resident deer may be as a movement corridor. Pellet density is high across the site, especially at the numerous visible trails that have been created by deer traveling north to south along the top of the moraine. Tracks are similarly dense, and in August (during a time of use by resident but not migratory animals) these tracks characteristically enter the project site as the proposed access road alignment climbs to the top of the moraine, then parallel this alignment to the downslope terminus of the moraine, finally descending to the meadow and riparian communities associated with the Hilton Creek diversion. These trails are interbraided, and in August included tracks of adults and fawns at heel. Mule deer will travel daily to surface water, especially as forage dries in late summer or when fawns are present (Tim Taylor, personal communication August 2011). The attractiveness of the moraine top (including most of the project area) for this necessary movement may lie in the slightly depressed topography running its length (north to south). From the perspective of resident mule deer, this depression is a corridor of relative darkness, the only one locally available that is shielded from significant night lighting and activity associated with BLM campground facilities to the west and the fire station (and Town of Crowley Lake) to the east. If this corridor is not compromised by new linear barriers to movement or night lighting created by the proposed project, then it is unlikely resident deer movements will be significantly affected.

CDFG has developed specific plans for management of herds (in this case, the Round Valley Herd) that emphasize the importance of designing projects so that a minimum of new barriers to deer migration are emplaced. Deer kill by motorists, especially on Highway 395, is considered one of the main causes of deer mortality in Mono County (Mono County Planning Dept., 2001). Signs such as increased herbivory and very wide trails trending east to west that were observed at the base of the moraine suggest the moraine may “channel” spring and fall migratory deer toward habitats that are offsite to the north of the project area. Similar east-west trending deer trails are absent from the project area and moraine upper slopes generally. Any project elements that would result in new linear barriers or other deterrents to resident and migratory deer movements may cause loss of access to crucial resources associated with Hilton Creek riparian communities and adjacent high-quality bitterbrush stands. Furthermore, these movements may be then shifted to the north, where the risk of mortality due to vehicle collisions would be greater.

The report concludes that there will be no significant impacts to mule deer (Paulus, p. 13):

Unless the project creates new lighting or linear barriers to movement of mule deer, no

important wildlife movement corridor is expected to be affected. There will be no effect on mule deer unless implementation causes loss of access to surface water and riparian resources, or increases highway crossings by altering the current patterns of resident and migratory movement.

The project will have no lights other than outdoor security lighting that must comply with the County's Dark Sky Regulations (Land Use Regulations Chapter 23), i.e, lighting must be shielded and directed so that the light shines only within the lease area and only on the structure or equipment requiring the light for security and/or maintenance. Outdoor lights must also not have any type of automatic or motion sensitive on-off switch.

The project will not create linear barriers to movement of the deer herd. The proposed access road for the project will be gravel, with no barriers to access. The only barrier to movement of the deer herd will be the 6-foot tall wall surrounding the lease site. The lease site will be located in the middle of the depression on top of the moraine; while this is an area thought to be used by the deer herd, there is sufficient room surrounding the lease site so that the deer can continue to use that general area and continue to access resources associated with the Hilton Creek riparian community and adjacent high-quality bitterbrush.

The project has been designed so that there will be no long-term impacts to wildlife, including the deer herd. However, construction activities could cause short-term impacts to mule deer, particularly during the fall and spring migration periods. In order to minimize impacts to the deer herd, proposed mitigation requires the project proponents to avoid construction during the spring and fall deer migration periods.

Construction activities also have the potential to impact nesting migratory birds, which are protected under state and federal laws. The on-site wildlife survey did not observe any nests within the boulders in the survey area, in the shrub canopy that would be removed or disturbed by construction, or on the adjacent power poles to the north of the project site (Paulus, p. 7). However, in order to avoid the potential to impact nesting birds, proposed mitigation requires weekly bird surveys of the area to be disturbed. If protected species are found, construction activities in that area will be delayed. This mitigation is suggested instead of restricting construction during the bird breeding season (March 1-September 1) because that restriction eliminates the majority of the construction season in Mono County.

- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The project complies with a number of Mono County General Plan policies that address the maintenance and restoration of botanical and wildlife habitat in Mono County (Mono County Conservation/Open Space Element), e.g.:

BIOLOGICAL RESOURCES

GOAL: Maintain an abundance and variety of vegetation, aquatic and wildlife types in Mono County for recreational use, natural diversity, scenic value, and economic benefits.

Objective A

Maintain and restore botanical, aquatic and wildlife habitats in Mono County.

Policy 1: Future development projects shall avoid potential significant impacts to animal or plant habitats or mitigate impacts to a level of non-significance, unless a statement of overriding considerations is made through the EIR process.

Action 1.4: Projects outside community areas within identified deer habitat areas, including migration corridors or winter range (see the Biological Resources Section of the Master Environmental Assessment), which may have a significant effect on deer resources shall submit a

site-specific deer study performed by a recognized and experienced deer biologist in accordance with Action 1.1.

Action 1.9: Limit road development in valuable habitat areas to the minimum required to achieve necessary access.

Action 1.10: Projects within the Hot Creek deer migration zone (see Figure 1) shall not be permitted unless a finding is made that potential impacts to deer have been avoided or mitigated to a level of non-significance.

- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. There are no habitat conservation plans of any type on private lands in the county.

Biological Resources Mitigation Measures

The following mitigation is proposed:

1. Construction activities shall not occur during the spring and fall migration periods for the Round Valley Deer Herd, i.e. October 1- November 30 and April 1- June 1.
2. Beginning thirty days prior to the disturbance of suitable nesting habitat, the project proponent shall arrange for weekly bird surveys to detect any protected native birds in the habitat to be removed and any other such habitat within 300 feet of the construction work area (within 500 feet for raptors). The surveys should be conducted by a qualified biologist with experience in conducting breeding bird surveys. The surveys should continue on a weekly basis with the last survey being conducted no more than three days prior to the initiation of clearance/construction work. If a protected native bird is found, the project proponent shall delay all clearance/construction disturbance activities in suitable nesting habitat or within 300 feet of nesting habitat (within 500 feet for raptor nesting habitat) until Sept. 15 or continue the surveys in order to locate any nests. If an active nest is located, clearing and construction within 300 feet of the nest (within 500 feet for raptor nests) shall be postponed until the nest is vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest should be established in the field with flagging and stakes or construction fencing. Construction personnel should be instructed on the sensitivity of the area. The project proponent should record the results of the recommended protective measures described above to document compliance with applicable state and federal laws pertaining to the protection of native birds.

V. CULTURAL RESOURCES. Would the project:

- a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

No Impact. A Cultural Resource Records Search and Site Survey was conducted for the site (ACE Environmental, LLC, 2011). The records search indicated that there are no registered historic properties or historic sites within 5 miles of the proposed project area (ACE Environmental, LLC, p. 3).

The on-site survey included the 1,500-foot long by 12-foot wide access road, the 40x60-foot lease area, and the 400-foot utility trench from the lease area to existing utility poles. The survey provided for a 15-30 foot deviation from proposed footprint. Since no specific utility pole was identified for connection purposes, the survey for the lease area and utility trench covered a 400x600-foot area to provide adequate coverage of the proposed lease area and utility trench.

The survey located one small (8x8 feet) historic refuse deposit, which included “unidentified metal scrap, crushed and bullet riddled 50-gallon drum, three fragments of clear glass from a small jar, several clear-glazed, white stoneware fragments, and milled wood fragments, and one matchstick canlid” (ACE Environmental, LLC, p. 8). The site appears to have been used for target practice. The site does not meet the criteria for significance established by the National Historic Preservation Act

(NHPA) (ACE Environmental, LLC, p. 9); the site also does not qualify as historically significant under CEQA.

- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?
No Impact. The Cultural Resource Records Search and Site Survey for the site indicated that there are two unevaluated archaeological sites within ½ mile of the subject property (p. 3).

See Item a above for the parameters of the on-site survey. The survey located three isolated prehistoric artifacts within the vicinity of the proposed lease area. The artifacts were located within a 175x70-foot area located to the north and northeast of the lease area and utilities trench, identified as Crowley Lake 1 in the report by ACE Environmental, LLC. No additional artifacts of prehistoric-area were identified within the survey area (ACE Environmental, LLC, p. 7).

The report prepared by ACE Environmental, LLC concludes that “ the Crowley Lake 1 site is an unevaluated prehistoric cultural resource with yet un-defined boundaries” (p 8). The report recommends additional archaeological work at the Crowley Lake 1 site to better define the limits of the site and to provide an eligibility determination for the site.

The Cultural Resource Records Search and Site Survey Revised, Vista Towers Site, Crowley Lake, Off Hilton Pack Station Road, September 12, 2011, prepared by Ace Environmental, LLC was peer reviewed by Trans-Sierran Archaeological Research. That peer review determined the following:

At your request I have reviewed the subject report, which describes archaeological work completed to determine the effects of a proposed telecommunications facility at Crowley Lake. The author is to be commended for a thorough and professional job.

However, the three flakes described and recorded as Crowley 1 do not, in fact, meet the archaeological site definition criteria established for flake scatters in Mono and Inyo Counties. Because of the heavily-used high-quality obsidian sources in the area, obsidian debitage is very common throughout the region. To allow researchers and planners to deal with this abundance and derive meaningful site boundaries, the Eastern Information Center of the California Historic Resources Inventory System has set a minimum density for flake scatters at 15 items per 10 by 10 meter area. Three flakes in an area measuring 175 by 70 ft would be considered individual isolates, rather than sites, and therefore would not qualify as a significant historic resource under the California Environmental Quality Act (CEQA).

In my professional opinion, no further archaeological work should be required for the Vista Towers Crowley Lake project.

Based on the additional information provided by Trans-Sierran Archaeological Research, the site does not include significant archaeological sites and the proposed project will not cause substantial adverse impacts to archaeological resources.

- c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
No Impact. No known paleontological resources exist on the project site. The soils on-site are alluvium, highly granitic, with coarse sands and small gravel. The site is on top of a small moraine, with many small boulders. The ridge is flat on top, gradually sloping down towards Crowley Lake to the north-northeast. The sides of the moraine are fairly steep. There are no unique geologic features on-site.
- d) Disturb any human remains, including those interred outside of formal cemeteries?
No Impact. No known human remains exist on the project site.

Cultural Resource Mitigation Measures

No mitigation measures are proposed.

VI. GEOLOGY AND SOILS. Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

No Impact. The project site is not located within a fault rupture hazard zone as shown on the Alquist-Priolo maps [California Geological Society, www.conservation.ca.gov/cgs].

ii) Strong seismic ground shaking?

Less Than Significant Impact. The entire county is subject to ground shaking. The county is designated seismic zone 4, the zone of greatest hazard as defined in the Uniform Building Code. All future structures, including walls, are required to meet these standards.

iii) Seismic-related ground failure, including liquefaction?

No Impact. The project site is not identified as an area at high risk for ground failure (Mono County Master Environmental Assessment Figure 34E).

iv) Landslides?

No Impact. The project site is relatively flat. The MEA does not identify the area as being subject to rockfalls or landslides (MEA Figure 35B), nor is it shown on landslide maps prepared by the California Geological Society (www.conservation.ca.gov/cgs).

b) Result in substantial soil erosion or the loss of topsoil?

No Impact. The project will require the removal and/or disturbance of approximately 22,800 square feet of low-growing Big Sagebrush Scrub (Lease area=2,400 square feet, utility trench 6' x 400'=2,400 square feet, access road 12' x 1500'=18,000 square feet). Of that total area, the 2,400 square feet for the utility trench will be revegetated in compliance with Mono County requirements; the areas within the 2,400 lease area not covered by buildings or concrete stoops will be covered with weed barrier fabric and 3 inches of gravel; and the 18,000 square feet for the access road will be covered with gravel, minimizing the potential for erosion following the construction phase of the project. Potential erosion during construction will be addressed by erosion control requirements of the Mono County Grading Ordinance and the General Plan and by compliance with standard project conditions, e.g.:

- Throughout grading and construction activities, exposed soil shall be kept moist through a minimum of twice daily watering to reduce fugitive dust.
- Street sweeping shall be conducted when visible soil accumulations occur along site access roadways to remove dirt dropped by construction vehicles or dried mud carried off by trucks moving dirt or bringing construction materials.
- Site access driveways and adjacent streets will be washed if there are visible signs of any dirt track-out at the conclusion of any workday.
- During high wind conditions (i.e. wind speeds exceeding 25 mph), areas with disturbed soil will be watered hourly and activities on unpaved surfaces shall be terminated until wind speeds no longer exceed 25 mph.
- Storage piles that are to be left in place for more than 3 working days shall be:
Sprayed with a non toxic soil-binder, or
Covered with plastic; or
Revegetated until returned to use.
- Tires of vehicles will be washed before leaving the site and entering a paved road.
- Dirt on paved surfaces shall be removed daily to minimize generation of fugitive dust.

- Fiber sediment barriers shall be placed downgrade of all construction activities.

Application of these uniformly applied development standards will reduce potential impacts to less than significant levels; no mitigation will be required.

- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?
No Impact. Subsidence has not been observed in Mono County due to fluid withdrawal, hydrocompaction, or water impoundment [Master Environmental Assessment (MEA), pg 283]. The lease area is relatively flat, as is most of the proposed access road; earthwork on-site would not result in a landslide.
- d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?
No Impact. The applicant will be required to submit a soils report or process a soils report waiver. Such report or waiver shall be reviewed and approved by the Director of Public Works, according to the provisions of Mono County Code (MCC) § 17.36.090.
- e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?
No Impact. The project will not have a septic system.

Geology and Soils Mitigation Measures

No mitigation measures are proposed.

VII. GREENHOUSE GAS EMISSIONS. Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant effect on the environment?
No Impact. The proposed project is an unmanned cell tower. After the construction phase, the project will not generate any traffic other than one or two routine monthly maintenance visits. The project does not involve woodburning or the creation of any other direct emissions. The project will use a minimal amount of water, provided by a local water provider in the community, only during construction and while the required landscaping is being established. The project will use a minimal amount of electricity. The project will not remove any trees and only a small amount of low-growing sagebrush scrub. Some of the areas where vegetation is removed during construction will be revegetated in compliance with Mono County's requirements for landscaping and revegetation.
- b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?
No Impact. There are no applicable plans, policies, or regulations for the reduction of greenhouse gas emissions in Mono County. The California State Air Resources Board has adopted regional greenhouse gas reduction standards for the areas included in the state's 18 Metropolitan Planning Organizations (MPOs); Mono County is not included in any of those MPOs (www.CoolCalifornia.org). California's Climate Change Scoping Plan encourages local governments to reduce greenhouse gas (GHG) at least 15 percent below current levels by 2020 (www.CoolCalifornia.org). The proposed project will not conflict with that goal. Many of the methods suggested to reduce greenhouse gas emissions involve reducing traffic, increasing use of mass transit, concentrating development in communities, utilizing alternative energy sources, and reducing the consumption of electricity and water. Many of those methods do not apply to the proposed project.

VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
No Impact. The project will not involve the routine transport, use, or disposal of hazardous materials.
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
Less Than Significant Impact. Propane will be stored on-site for use in an emergency generator. The Mono County Environmental Health Department will require compliance with uniformly applied Environmental Health regulations, including the completion of a Hazardous Materials Business Plan, and ongoing compliance with that plan. Application of these uniformly applied health standards will reduce potential impacts to a less than significant level.
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
No Impact. There are no schools within one-quarter mile of the project site.
- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
No Impact. The project site is not on any list of hazardous materials sites.
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
No Impact. The project site is not located within the boundaries of an airport land use plan or within two miles of any airport.
- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?
No Impact. There are no private airstrips in the general area of the project site.
- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
No Impact. The proposed project is consistent with Mono County's Emergency Operations Plan (EOP). The proposed project will provide adequate access for emergency vehicles.
- h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?
No Impact. The project site is within the boundaries of the Long Valley Fire Protection District and must comply with the building requirements of that district. It will be an unmanned wireless facility.

Hazards and Hazardous Mitigation Measures

No mitigation measures are proposed.

IX. HYDROLOGY AND WATER QUALITY. Would the project:

- a) Violate any water quality standards or waste discharge requirements?
No Impact. The proposed wireless facility will be unmanned and will not have any facilities or equipment that utilizes water. Project conditions will require irrigation water for erosion control during construction and to establish required revegetation of disturbed areas. That water will be provided by a local water provider, and will be required only during the construction phase and until revegetated areas are established. The lease site is located in a topographical depression, approximately 10 feet below the surrounding topography to the south, east, and west and a more gradual slope to the north. Any runoff that could be channelized by the solid concrete block wall surrounding the lease area will remain on-site, in the immediate area surrounding the lease site.

- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

No Impact. The proposed wireless facility will be unmanned and will not have any facilities that utilize water. Project conditions will require irrigation water for erosion control during construction and to establish required revegetation of disturbed areas. That water will be provided by a local water provider, and will be required only during the construction phase and until revegetated areas are established. Irrigation water will infiltrate back into the soil to recharge groundwater in the area.

The project includes approximately 818 square feet of impermeable surfaces (equipment shelters, concrete pads for generator and propane tank, 188' of 8" thick solid wall around lease area). Remaining disturbed areas will be revegetated or covered with gravel, which will allow groundwater recharge.

- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?

No Impact. There are no streams or rivers on-site. The project site is located on the top of a ridge, but within a small depression that will contain runoff. The project involves the installation of approximately 818 square feet of impermeable surfaces (equipment shelters, future concrete slabs, concrete wall). Remaining disturbed areas will be covered with gravel and landscaping, which will provide an adequate area for stormwater infiltration so that off-site erosion and siltation do not occur. Standard erosion control BMPs will be implemented during the construction phase to ensure that erosion or siltation does not occur.

- d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

No Impact. There are no streams or rivers on-site or in the immediate vicinity of the project. The project involves the installation of approximately 818 square feet of impermeable surfaces (equipment shelters, concrete pads for generator and propane tank, 188' of 8" thick solid wall around lease area). Remaining disturbed areas will be covered with gravel and landscaping, which will provide an adequate area for stormwater infiltration so that runoff is not increased.

The lease site is located in a topographical depression, approximately 10 feet below the surrounding topography to the south, east, and west and a more gradual slope to the north. Any runoff that could be channelized by the solid wall surrounding the lease area will remain on-site, in the immediate area surrounding the lease site.

- e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

No Impact. There are no stormwater drainage systems in the area. The project involves the installation of approximately 818 square feet of impermeable surfaces (equipment shelters, concrete pads for generator and propane tank, 188' of 8" thick solid wall around lease area). The access road will be gravel to allow for stormwater infiltration. Following construction, vehicles will only visit the site approximately once per month on maintenance visits, minimizing the amount of pollutants from automobiles that could be deposited on-site.

The lease site is located in a topographical depression, approximately 10 feet below the surrounding topography to the south, east, and west and a more gradual slope to the north. Any runoff that could be channelized by the solid wall surrounding the lease area will remain on-site, in the immediate area surrounding the lease site.

- f) Otherwise substantially degrade water quality?
No Impact. The project does not involve water or sewer services. Runoff will be contained on-site. No other impacts to water quality are anticipated.
- g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?
No Impact. The project does not involve housing.
- h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?
No Impact. The project site is not within the 100-year flood zone and dam inundation zone as indicated on the FEMA Flood Zone Map for Long Valley [Master Environmental Assessment (MEA) Figure 38J].
- i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?
No Impact. The project does not involve housing.
- j) Inundation by seiche, tsunami, or mudflow?
No Impact. The project site is not in an area subject to seiche, tsunami, or mudflows.

Hydrology and Water Quality Mitigation Measures

No hydrology and water quality mitigation measures are proposed.

X. LAND USE AND PLANNING. Would the project:

- a) Physically divide an established community?
No Impact. The project will not divide an established community. It is outside of community areas, on land that is not designated for community development. Surrounding parcels, on most sides, are also not designated for community development.
- b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?
No Impact. The proposed project is located on a parcel designated Open Space (OS). The intent of the Open Space designation is to “protect and retain open space for future generations. These lands may be valuable for resource preservation (e.g. visual open space, botanical habitat, stream environment zones, etc.), low-intensity recreational uses, mineral resources, or other reasons” (Mono County Land Use Regulations). The parcel on which the proposed project is located will remain largely undeveloped open space. The proposed project will be located near existing power poles on the project and will be designed and constructed to blend in to the surrounding existing visual environment as much as possible.

The Mono County Land Development Regulations allow certain land uses in any designation subject to use permit:

04.050 Uses permitted subject to use permit.

Certain uses listed in the land use designations set forth in Section IV of this Land Use Element are permitted only when subject to use permit. Such uses shall be subject to all applicable property development standards of this chapter and those of the designation in which the uses are located. Any such use shall be subject to submission of a site plan.

- A. Uses listed in the designations as "permitted subject to use permit" are permitted subject to the provisions of Chapter 32, Use Permits.
- B. In addition, the following uses are permitted in any designation subject to use permit:

1. Public buildings and quasi-public buildings and uses (see definitions).

Public buildings and quasi-public buildings and uses are defined in the Land Development Regulations to include communications facilities:

02.950 Public utility buildings, structures and uses.

"Public utility buildings, structures and uses" means the use of land for public utility purposes by public, quasi- public and private energy and communication purposes and distributors except for conventional electrical distribution substations and facilities. Hydroelectric and geothermal power plant construction is considered to fall within this definition.

- c) Conflict with any applicable habitat conservation plan or natural community conservation plan?
No Impact. There are no habitat conservation plan or natural community conservation plans on private lands in Mono County.

Land Use and Planning Mitigation Measures

No mitigation measures are proposed.

XI. MINERAL RESOURCES. Would the project:

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The Mono County Master Environmental Assessment (MEA) Figure 17J indicates that the project site is within an area where adequate information indicates that no significant mineral deposits are present, or where it is judged that there is little likelihood for their presence. The development of wireless telecommunications facilities on-site could temporarily result in the loss of the availability of any mineral resources. In the long-term, it would not affect the availability of mineral resources.

- b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. No mining or mineral resources have been identified in local plans on-site.

Mineral Resource Mitigation Measures

No mitigation measures are proposed.

XII. NOISE. Would the project result in:

- a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact. The wireless facility will not create any noise during normal operations. Construction-related noise impacts could cause some temporary disturbance. However, the project is located at least 900 feet from the nearest housing (Mono County GIS), in a topographical depression that will attenuate some of the construction-related noise. Proposed mitigation measures for the project prohibit construction during the spring and fall migration periods in order to minimize potential impacts, including noise impacts, to the Round Valley deer herd. Construction activities must also comply with the requirements of the County's Noise Ordinance (Mono County Code, Chapter 10.16). Application of those uniformly applied development standards will reduce potential impacts to less than significant levels; no mitigation for potential construction-related noise impacts will be required.

The project includes one UL2200 certified 60 kw standby propane generator on a 6' x 13' concrete pad that would be utilized by Verizon. The generator would only be used during sustained power outages when on-site backup batteries are exhausted. At full load, the generator will produce an average of 67.1 dBA at a distance of 23 feet (Generac Power Systems). The generator will be located within the

8”-thick concrete block wall surrounding the lease site. That wall will help attenuate noise from the operation of the generator, as will the project’s location in a topographical depression.

The Mono County Noise Ordinance contains maximum allowable noise levels for the operation of mobile equipment [Mono County Code 10.16.090 (6)], i.e.:

- a. At residential properties:
Maximum noise levels for nonscheduled, intermittent, short-term operation (less than ten days) of mobile equipment as set out in Table 10.16.090A of this section.
- b. At business properties:
Maximum noise levels for nonscheduled, intermittent, short-term operation of mobile equipment. Daily, including Sundays and legal holidays, all hours; maximum of 85 dBA.

Table 10.16.090A

	Type I Areas Single-Family Residential	Type II Areas Multi-Family Residential	Type III Areas Semi- Residential Commercial
Daily, except Sundays & legal holidays 7 a.m. to 7 p.m.	75 dBA	80 dBA	85 dBA
Daily, 7 p.m. to 7 a.m. & all day Sundays & legal holidays	60 dBA	65 dBA	70 dBA

The proposed generator will produce an average of 67.1 dBA at a distance of 23 feet. Use of a generator for emergency purposes would qualify as a nonscheduled, intermittent, short-term use of equipment. At the closest single-family residential properties to the east of the project site, the sound level would be under the maximum 75 dBA noted in subsection b above. Potential noise impacts from the use of an emergency generator will be less than significant.

- b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?
No Impact. The wireless facility will not create groundborne vibration or groundborne noise levels.
- c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
No Impact. The wireless facility will not create any permanent increase in the ambient noise levels in the project vicinity.
- d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
Less Than Significant Impact. Short-term increases in noise levels would result from construction activities. Compliance with all requirements of the Mono County Noise Regulations (Mono County Code §10.16) would reduce those impacts to less than significant levels. Short-term increases in noise levels could also result from the use of a generator during power outages. See discussion under item a above.
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
No Impact. The project site is not within an airport land use plan area or within two miles of any public airport.
- f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is not within the vicinity of a private airstrip.

Noise Mitigation Measures

No mitigation measures are proposed.

XIII. POPULATION AND HOUSING. Would the project:

- a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The project is an unmanned wireless communications facility. It is not anticipated to induce population growth.

- b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project site is designated Open Space (OS) and does not include any existing housing.

- c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. The project site is designated Open Space (OS) and does not include any existing housing; the project would not displace any residents.

Population and Housing Mitigation Measures

No mitigation measures are proposed.

XIV. PUBLIC SERVICES.

- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of these public services:

- i) Fire protection?

Less Than Significant Impact. The project site is within the boundaries of the Long Valley Fire Protection District. It will be an unmanned wireless facility, with minimal structures, in an area removed from other development. A 490-gallon vertical propane tank will be installed on-site to provide fuel for an on-site emergency generator. The propane tank will be located 10 feet from any buildings and 399 feet from the closest utility pole, and will be installed in compliance with Mono County Department of Environmental Health requirements for propane tanks. The Department of Environmental Health will also require a Hazard Business Plan for the tank. The installation and use of the tank will comply with existing standards and regulations for the safe operation of propane tanks, reducing the fire risk to a less than significant impact.

- ii) Police protection?

No Impact. The project is a wireless facility. It is not anticipated to generate additional population or to create any impacts to police protection.

- iii) Schools?

No Impact. The project is a wireless facility. It is not anticipated to generate additional population or to create any impacts on the schools.

- iv) Parks?

No Impact. The project is a wireless facility. It will not impact parks or recreational facilities.

- v) Other public facilities?

No Impact. No other public service needs are anticipated.

Public Services Mitigation Measures

No mitigation measures are proposed.

XV. RECREATION.

- a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The project is a wireless facility. It will not impact existing recreational facilities.

- b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No Impact. The project is a wireless facility. It does not include recreational facilities and will not require the construction or expansion of recreational facilities.

Recreation Mitigation Measures

No mitigation measures are proposed.

XVI. TRANSPORTATION/TRAFFIC. Would the project:

- a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

No Impact. Once construction of the facility is completed, the only traffic to the wireless facility will be routine monthly maintenance visits. Access routes to the site, including Crowley Lake Drive, South Landing Road, and US 395 in the vicinity of the project site, have sufficient capacity to handle construction traffic.

- b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

No Impact. See response to Item XVa above. Traffic congestion is generally not a problem in this area.

- c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The project will not impact air traffic patterns.

- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. Access to the site will be from Hilton Creek Trail, an existing unpaved 20-foot wide road with minimal traffic, primarily from recreational users of the Hilton Creek Trailhead. The project will not alter that road; the access point for the project will be slightly north of the existing parking for Hilton Creek Trailhead and will not interfere with traffic or parking for the trailhead. The planned on-site access is a twelve-foot wide gravel access road, which will be predominantly straight with one curved section and two turnarounds.

- e) Result in inadequate emergency access?

No Impact. The project will be accessed from Crowley Lake Drive, Hilton Creek Trail, and an on-site twelve-foot wide gravel access road. Crowley Lake Drive is a paved, maintained access road with adequate emergency access. Hilton Creek Trail is a 20-foot wide unpaved road. The on-site access road is predominantly straight and includes turnouts for emergency access. Hilton Creek Trail and the

on-site access road will not be plowed in winter. The applicant has indicated that snowmobiles or snowcats may be used in winter for emergency access. The project site is less than one mile from Crowley Lake Drive, along the access roads; emergency vehicles would be able to access the site in winter.

- f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. The project is an unmanned cell tower on private property and as such will not conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or affect such facilities in any way.

Transportation/Traffic Mitigation Measures

No mitigation measures are proposed.

XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:

- a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. The project is an unmanned wireless facility. It will not require wastewater treatment.

- b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. The project is an unmanned wireless facility. It will not include any water or wastewater facilities.

- c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. There are no storm water drainage facilities in the project area. The project has been designed 1) to minimize impervious surfaces and therefore minimize runoff and 2) to contain any concentration of runoff on-site so that it will not cause erosion or other environmental effects. The on-site access road will be gravel. The telecommunications facilities will be located in a depression in the top of the moraine, approximately 10 feet below the surrounding topography, which will contain any runoff on-site.

- d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No Impact. The proposed wireless facility will be unmanned and will not have any facilities that utilize water. Project conditions will require irrigation water for erosion control during construction and to establish required revegetation of disturbed areas. That water will be provided by a local water provider, and will be required only during the construction phase and until revegetated areas are established.

- e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the provider's existing commitments?

No Impact. The proposed development will not require the construction of new service facilities for sewer service.

- f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

No Impact. Mono County landfill facilities are not expected to be impacted by the proposed project. Benton Crossing Landfill and Pumice Valley Landfill have sufficient capacity to serve local communities for over ten years (Mono County Public Works Department and SRK Consulting Engineers and Scientists, **Reports of Disposal Site Information, Benton Crossing Landfill and**

Pumice Valley Landfill). In addition, green waste from landclearing activities is turned into mulch at the landfill sites instead of being placed in the landfill.

- g) Comply with federal, state, and local statutes and regulations related to solid waste?
No Impact. The project will comply with all solid waste regulations.

Utilities and Service Systems Mitigation Measures

No mitigation is required.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE.

- a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

No significant environmental effects are anticipated to result from the proposed Use Permit Application. The facility will be an unmanned telecommunications facility that does not emit noise, smoke or odors. Following the construction phase, the only traffic to the site will be a monthly routine maintenance trip.

The project has been designed to reduce potential impacts to less than significant levels. Development on-site will be partially screened by topography; disturbed areas will be revegetated with a local native seed mix. The proposed monopine or monopole is intended to blend in with surrounding vegetation types. Paint colors for structures, fencing and equipment will be dark, matte colors to blend the facilities into the surrounding environment. Signs will be limited to small metal signs attached to the fencing and outdoor lighting will be shielded and directed only at on-site facilities. Air quality impacts from dust will be controlled during construction and afterward in compliance with Mono County erosion control standards.

- b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

The project has been designed to reduce impacts to less than significant levels. The potential cumulative impact includes potential visual impacts. The only relevant projects in Crowley Lake would be the recently constructed utility projects: water tower for Mountain Meadows Mutual Water Company and the addition of a water tower for Crowley Lake Mutual Water Company. Both of those projects were designed to reduce potential visual impacts to less than significant levels through screening and landscaping and compliance with approved visual mitigation measures in the Crowley Lake Estates Specific Plan. As a result, the project will not contribute to cumulatively considerable visual impacts in the area. As to Biological impacts, these utility improvements are both within the Crowley Community and within disturbed and developed areas lacking sensitive biological resources. Therefore, the project will not contribute to cumulatively considerable biological impacts in the area.

- c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

The project will not cause substantial adverse effects on human beings.

VI. REFERENCES

Documents

ACE Environmental, LLC

Cultural Resource Records Search and Site Survey Revised. Vista Towers Site, Crowley Lake, Off Hilton Pack Station Road, Mammoth Lakes, Mono County, California, 93546. September 12, 2011.

General Biological Evaluation. Vista Towers Site, Crowley Lake, Off Hilton Pack Station Road, Mammoth Lakes, Mono County, California, 93546. September 6, 2011.

California Regional Water Quality Control Board

Water Quality Control Plan for the Lahontan Region (Basin Plan). 1995.

Cell Trees Inc.

Letter to Robert MacLachlan, Subject: Raptor Spikes. 8/2/2011.

Generac Power Systems, Inc.

Sound Test Results, 3.0 John Deere 60kW. 06/07.

Statement of Exhaust Emissions, Gaseous Fueled Generator with Catalyst and Air Fuel Ration Control. 9/2/04.

Mono County Code.

Chapter 10.16, Noise Ordinance.

Chapter 13.08, Land Clearing, Earthwork, and Drainage.

Mono County Land Development Regulations (Revised Land Use Element).

Mono County Office of Emergency Services

Mono County Emergency Operations Plan (EOP). 2004.

Mono County Local Transportation Commission

Regional Transportation Plan (RTP). 2005.

Mono County Planning Department.

Mono County General Plan and Updates. 2001, 2010.

Mono County Master Environmental Assessment and Updates (MEA). 2001, 2010.

Multi-Jurisdictional Local Hazard Mitigation Plan for Mono County and Mammoth Lakes. 2006.

Mono County Public Works Department and SRK Consulting Engineers and Scientists

Report of Disposal Site Information. Joint Technical Document. Benton Crossing Landfill. 2004.

Report of Disposal Site Information. Joint Technical Document. Pumice Valley Landfill. 2004.

Paulus, Jim.

Assessment of Biological Resources, Vista Towers Wireless Telecommunications Facility at Crowley Lake, Mono County, California. September, 2011.

Trans-Sierran Archaeological Research

Re: Cultural Resource Records Search and Site Survey Revised, Vista Towers Site, Crowley Lake, Off Hilton Pack Station Road, September 12, 2011. Letter to Scott Burns from Mary Farrell, dated September 27, 2011.

Websites

California Air Resources Board

www.arb.ca.gov

Air emissions inventory data. Information on air quality and transportation planning.

California Department of Fish and Game

www.dfg.ca.gov

Special status species, habitat information, California Natural Diversity Database (CNDDB), California Wildlife Habitat Relationships System (CWHHR).

California Department of Transportation

www.dot.ca.gov

Planning guidance, traffic counts, scenic highway designations.

CalFlora

www.calflora.org

Information on wild plants in California.

California Geological Survey

www.conservation.ca.gov/cgs

Alquist-Priolo Fault Hazard Maps, information on mineral resources and geologic hazards.

California Native Plant Society

www.cnps.org

Inventory of Rare and Endangered Plants (online edition, v7-Feb, 2011).

Cool California

www.CoolCalifornia.org

Information on reducing greenhouse gas emissions (GHG).

VII. FIGURES

- Figure 1 Site Plan
- Figure 2 Site Plan Detail
- Figure 3 Elevations
- Figure 4 Existing Site Photos
- Figure 5 Photo Simulations

FIGURE 4 Existing Site Photos

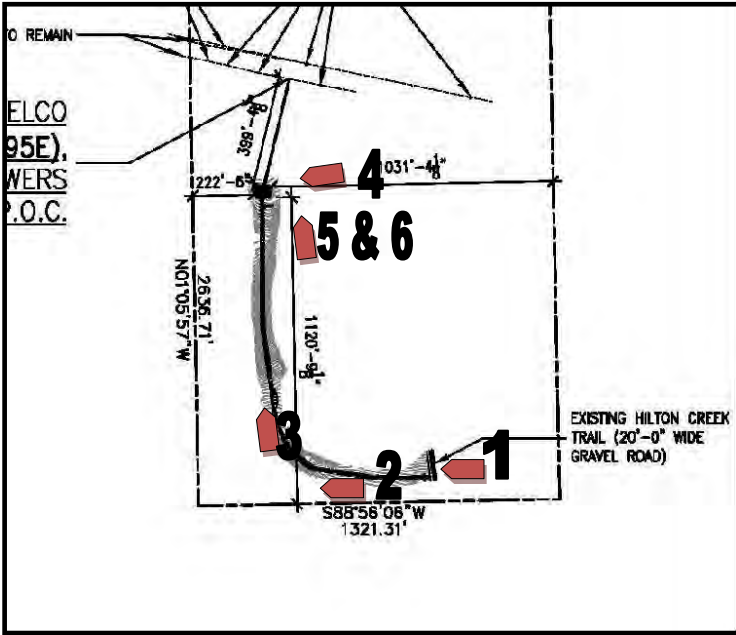


Photo Point 1: Entrance to project site

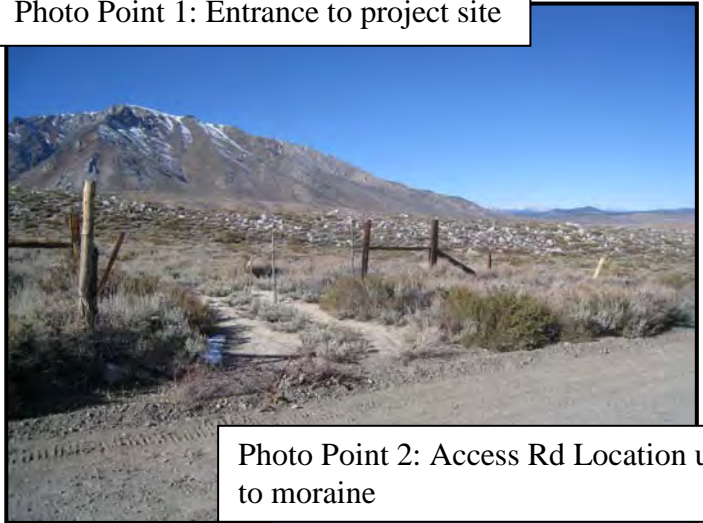


Photo Point 2: Access Rd Location up to moraine



Photo Point 3: Top of Moraine looking north toward the project location



Photo Point 4: looking at cell tower proposed location

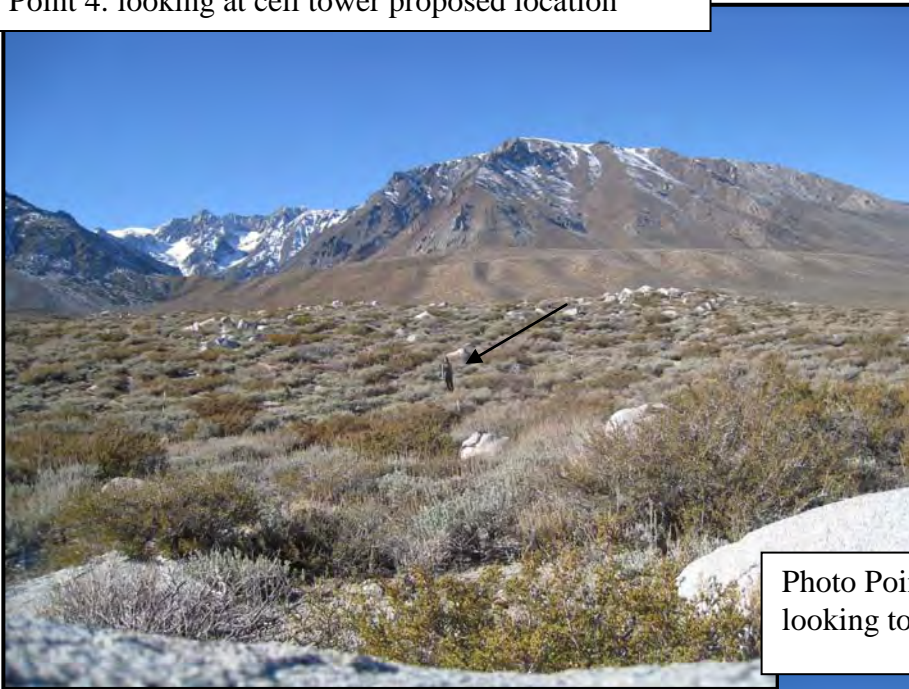


Photo Point 5: Monopole/pine location looking toward Crowley Lake

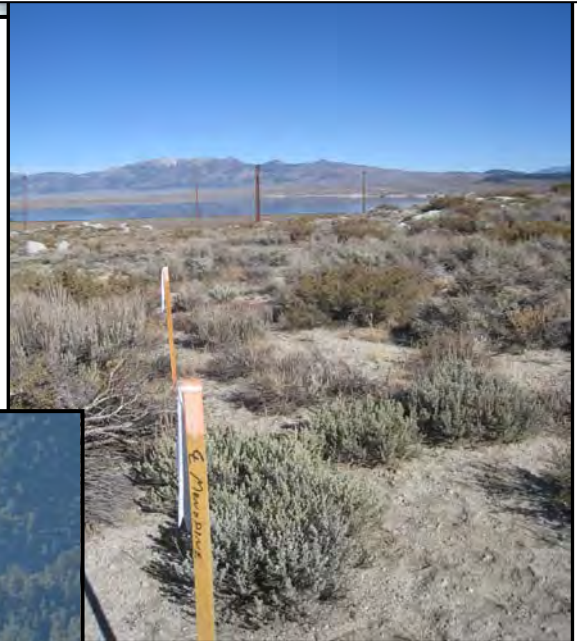


Photo Point 6: Existing power poles on property. Photo from Hwy 395 zoomed.

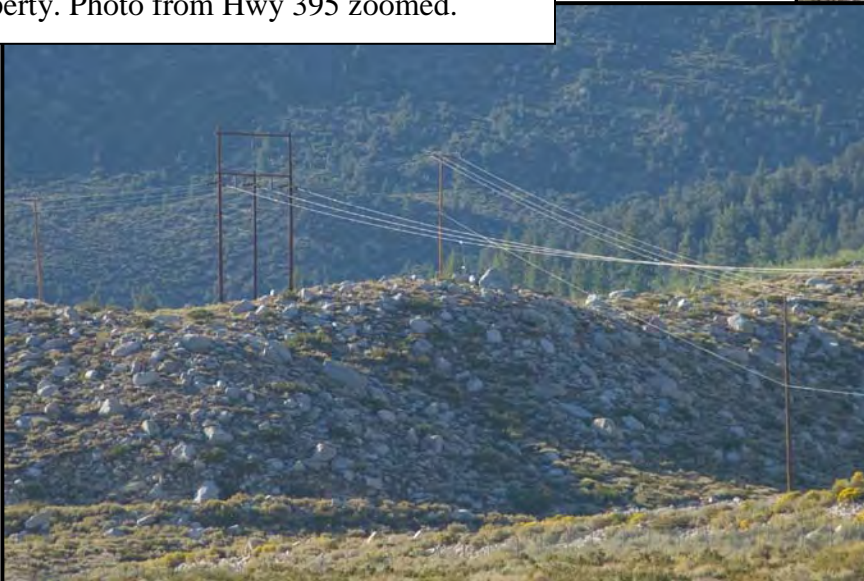
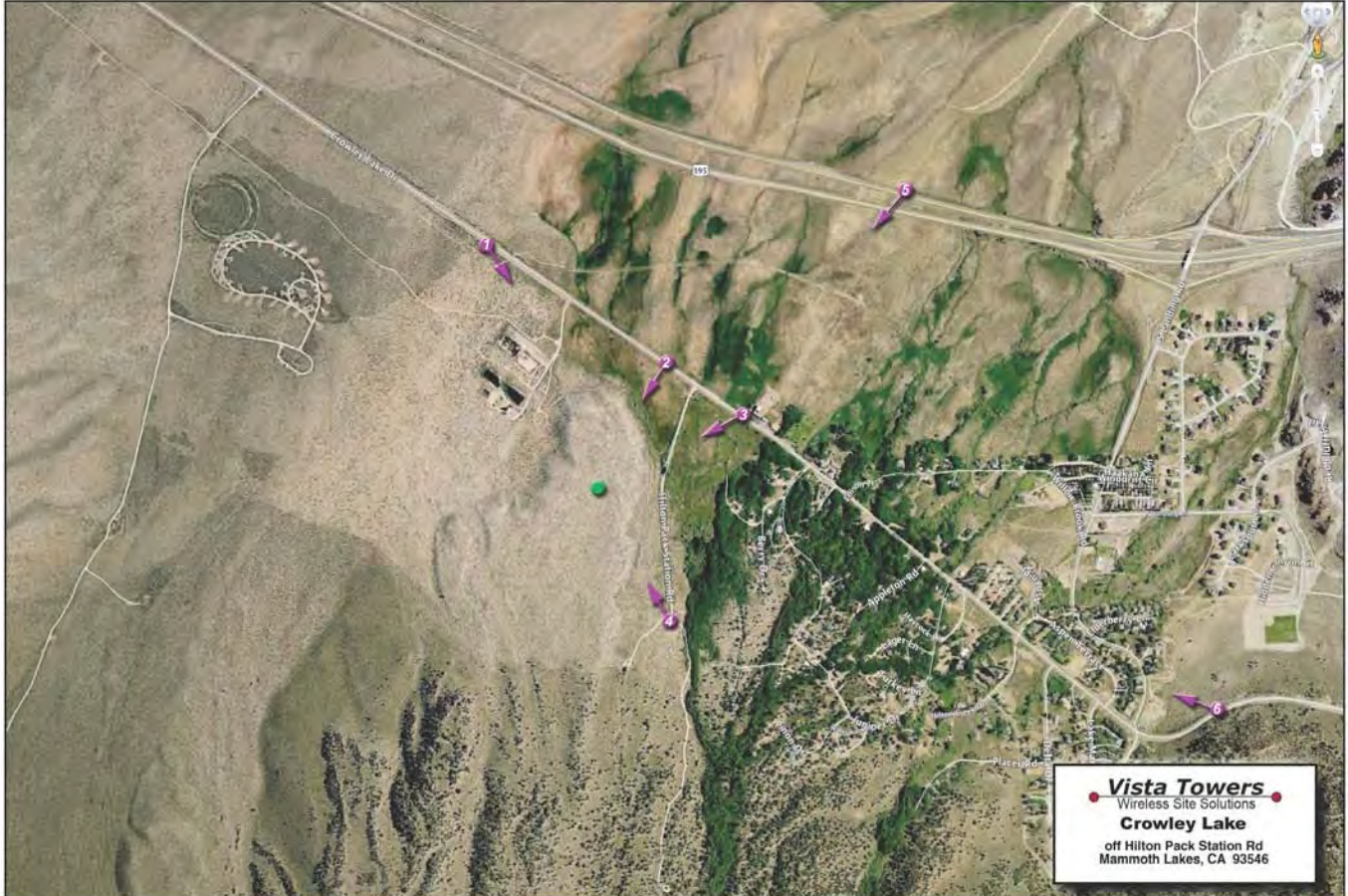


FIGURE 5 Photo Simulations

September 12, 2011

Aerial photograph showing the viewpoints for the photosimulations.



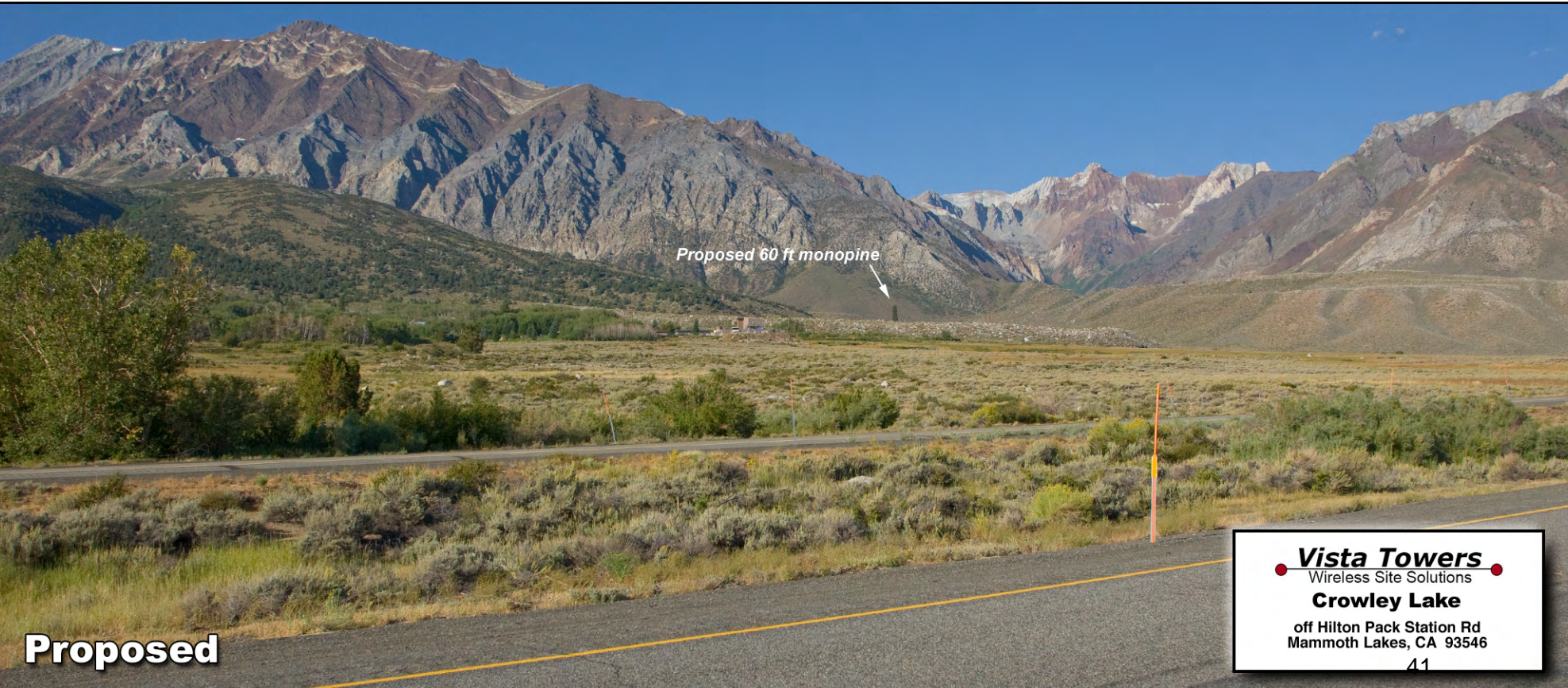
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Set #1 Monopine
Set #2 Monopole

Photosimulation of view looking southwest from the along Hwy 395, directly adjacent the community of Crowley Lake.



Existing



Proposed 60 ft monopine

Proposed

Vista Towers
Wireless Site Solutions
Crowley Lake
off Hilton Pack Station Rd
Mammoth Lakes, CA 93546
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Photosimulation of view looking northwest from Hilton Pack Station Road, above the site, at the trailhead.



Existing



Proposed 60 ft monopine

Proposed

Vista Towers
Wireless Site Solutions
Crowley Lake
off Hilton Pack Station Rd
Mammoth Lakes, CA 93546
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Photosimulation of view looking west-southwest from in front of the Fire Station along Crowley Lake Road.

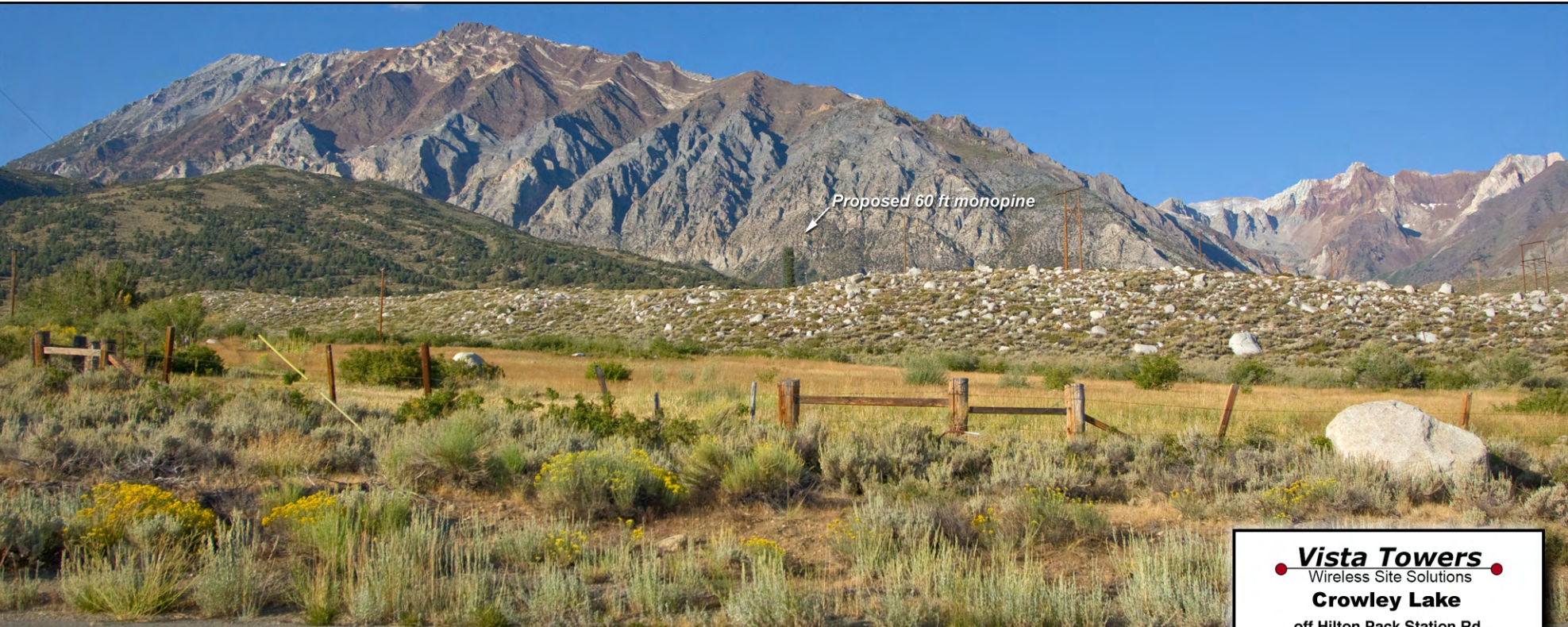


Vista Towers
Wireless Site Solutions
Crowley Lake
off Hilton Pack Station Rd
Mammoth Lakes, CA 93546
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Photosimulation of view looking south-southwest from the nearest point along Crowley Lake Road.



Existing



Proposed 60 ft monopine

Proposed

Vista Towers
Wireless Site Solutions
Crowley Lake
off Hilton Pack Station Rd
Mammoth Lakes, CA 93546
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Photosimulation of view looking southeast from the shoulder of Crowley Lake Road, about a half mile from the site.



Existing



Proposed 60 ft monopine

Proposed

Vista Towers
Wireless Site Solutions
Crowley Lake
off Hilton Pack Station Rd
Mammoth Lakes, CA 93546
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Photosimulation of view looking northwest from Crowley Lake Drive, coming into town from the east.

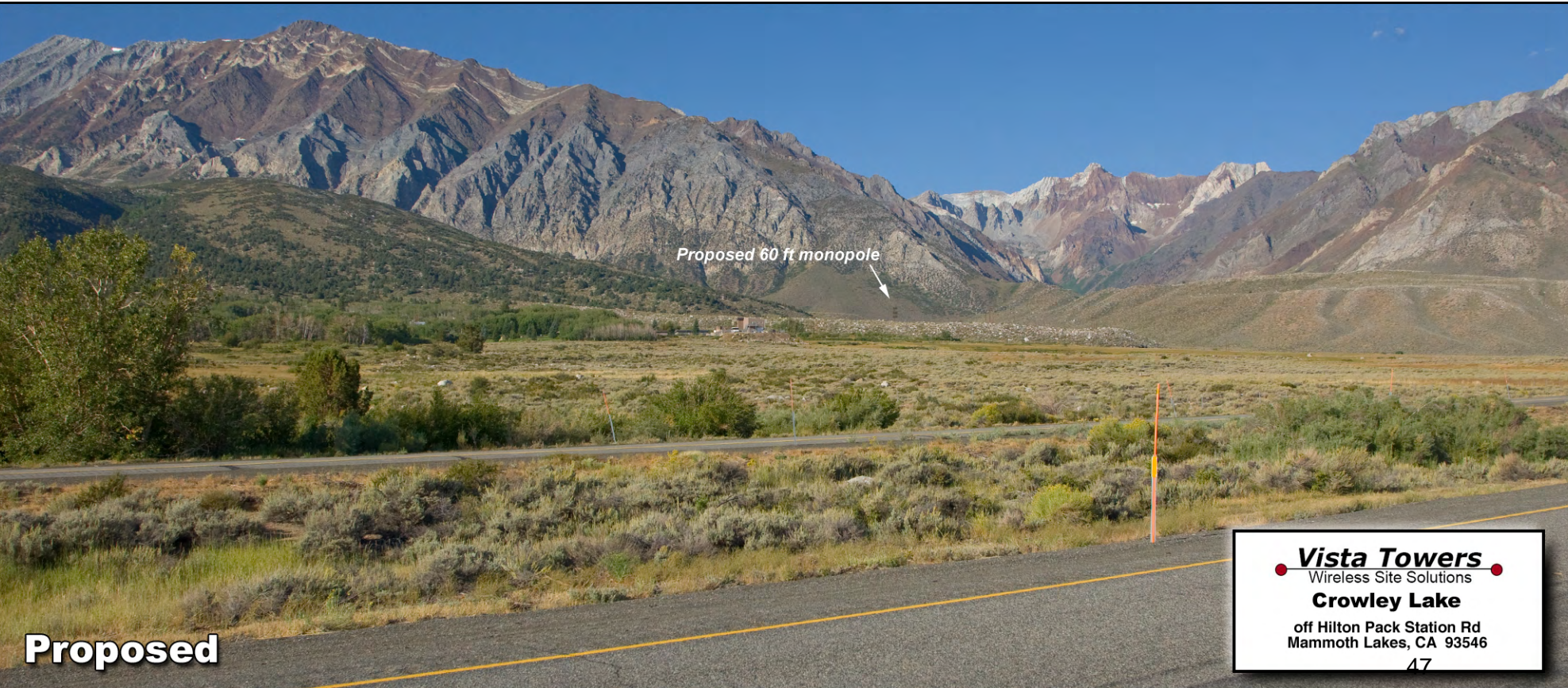


Vista Towers
Wireless Site Solutions
Crowley Lake
off Hilton Pack Station Rd
Mammoth Lakes, CA 93546
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Photosimulation of view looking southwest from the along Hwy 395, directly adjacent the community of Crowley Lake.



Existing



Proposed 60 ft monopole

Proposed

Vista Towers
Wireless Site Solutions
Crowley Lake
off Hilton Pack Station Rd
Mammoth Lakes, CA 93546
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Photosimulation of view looking northwest from Hilton Pack Station Road, above the site, at the trailhead.



Existing



Proposed 60 ft monopole

Proposed

Vista Towers
Wireless Site Solutions
Crowley Lake
off Hilton Pack Station Rd
Mammoth Lakes, CA 93546
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Photosimulation of view looking west-southwest from in front of the Fire Station along Crowley Lake Road.



Existing

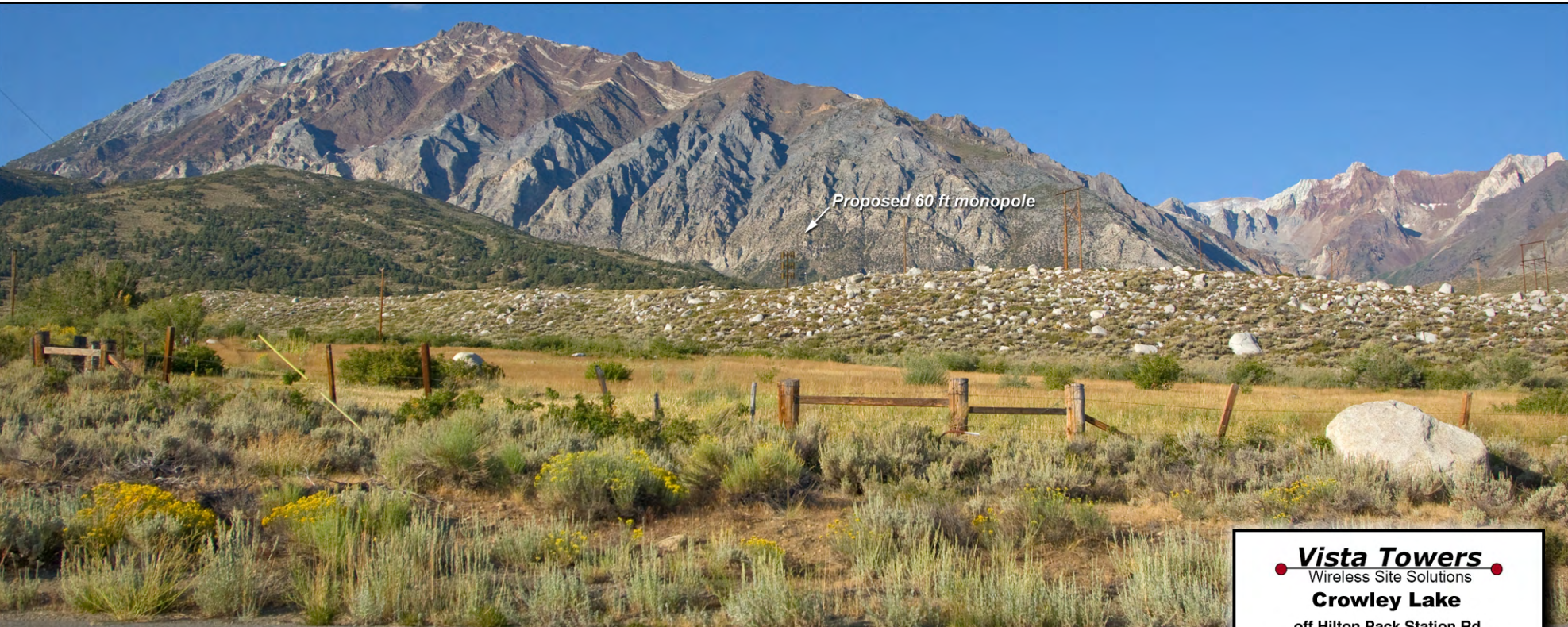


Proposed

Proposed 60 ft monopole

Vista Towers
Wireless Site Solutions
Crowley Lake
off Hilton Pack Station Rd
Mammoth Lakes, CA 93546
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Photosimulation of view looking south-southwest from the nearest point along Crowley Lake Road.



Vista Towers
Wireless Site Solutions
Crowley Lake
off Hilton Pack Station Rd
Mammoth Lakes, CA 93546
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Photosimulation of view looking southeast from the shoulder of Crowley Lake Road, about a half mile from the site.



Existing



Proposed

Vista Towers
Wireless Site Solutions
Crowley Lake
off Hilton Pack Station Rd
Mammoth Lakes, CA 93546
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Photosimulation of view looking northwest from Crowley Lake Drive, coming into town from the east.



Vista Towers
Wireless Site Solutions
Crowley Lake
off Hilton Pack Station Rd
Mammoth Lakes, CA 93546
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VIII. APPENDICES

- Appendix A Assessment of Biological Resources. Jim Paulus, PhD.//Rci g'76
Appendix B Crowley Lake General Biological Evaluation. Ace Environmental LLC.//Rci g': 7
Appendix C Cultural Resource Records Search and Site Survey Revised. Ace Environmental LLC.//Rci g'; ;
Appendix D Comment Letter from Trans-Sierran Archaeological Research. September 27, 2011.//Rci g'357

Assessment of Biological Resources
Vista Towers Wireless Telecommunications Facility at Crowley Lake
Mono County, California



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September 6, 2011

Vista Towers Wireless Telecommunications Facility at Crowley Lake Assessment of Biological Resources

Jim Paulus, Ph.D.
September 6, 2011

Introduction

A review of biological resources that occur or may potentially occur at the site of proposed construction and operation of a wireless telecommunications tower facility near the town of Crowley Lake, Mono County, California was conducted in August 2011. This project would include 1500 linear ft of new approach roadway, an enclosed 2400 square foot pad, and a 60 foot tall tower. It would be implemented atop a glacial moraine within undeveloped upland scrub-vegetated land adjacent west of Crowley Lake Drive and U.S. Highway 395 (Figure 1). Construction would remove vegetation and disturb the soil profile to create the access road (unpaved) and pad (paved and fenced). Disturbance due to construction could also include shrub canopy removal and boulder displacement and relocation to provide access for construction equipment. Once installed, operational site maintenance will require infrequent visits to the site by vehicle or snowmobile. All areas that could be potentially affected by either the construction or by routine maintenance were included in the assessment of biological resources.

The average elevation of the project area is 7150 ft (2180 m). The facility would be situated at the base of the steeply sloping eastern flank of the central Sierra Nevada Range. The climate is montane; the average winter temperature is 32° F, and the frost-free growing season is about 150 days. The average summer air temperature is 80° F (Natural Resource Conservation Service, 1996). The growing season (May-October) is normally xeric, characterized by moderate daytime temperatures and low humidity, but thunderstorms can irregularly interrupt this pattern. Snowfall can begin in September, but is most likely to accumulate in this area during the period November – April.

Plant communities

The proposed project area, and the surrounding slopes and plateau of the moraine upon which it would be situated, support a single type of vegetation classified as Big Sagebrush Scrub. This community grades into dry montane meadow and intermittent riparian scrub downslope and well outside where construction-related disturbance would occur. These contrastingly mesic communities are supported by a perennially watered diversion of Hilton Creek that passes at the foot of the lowest moraine deposit. Big Sagebrush Scrub occurs on relatively dry uplands, in contiguous stands that extend to the base of the higher Sierran slopes. Within the area of potential disturbance, this vegetation is uniform. The entire survey area was xeric at the time of site assessment, and no other potentially or seasonally mesic habitats (e.g., wetland swales, ephemeral stream beds) were signaled by shifts in the species assemblage or otherwise detected within the project area.

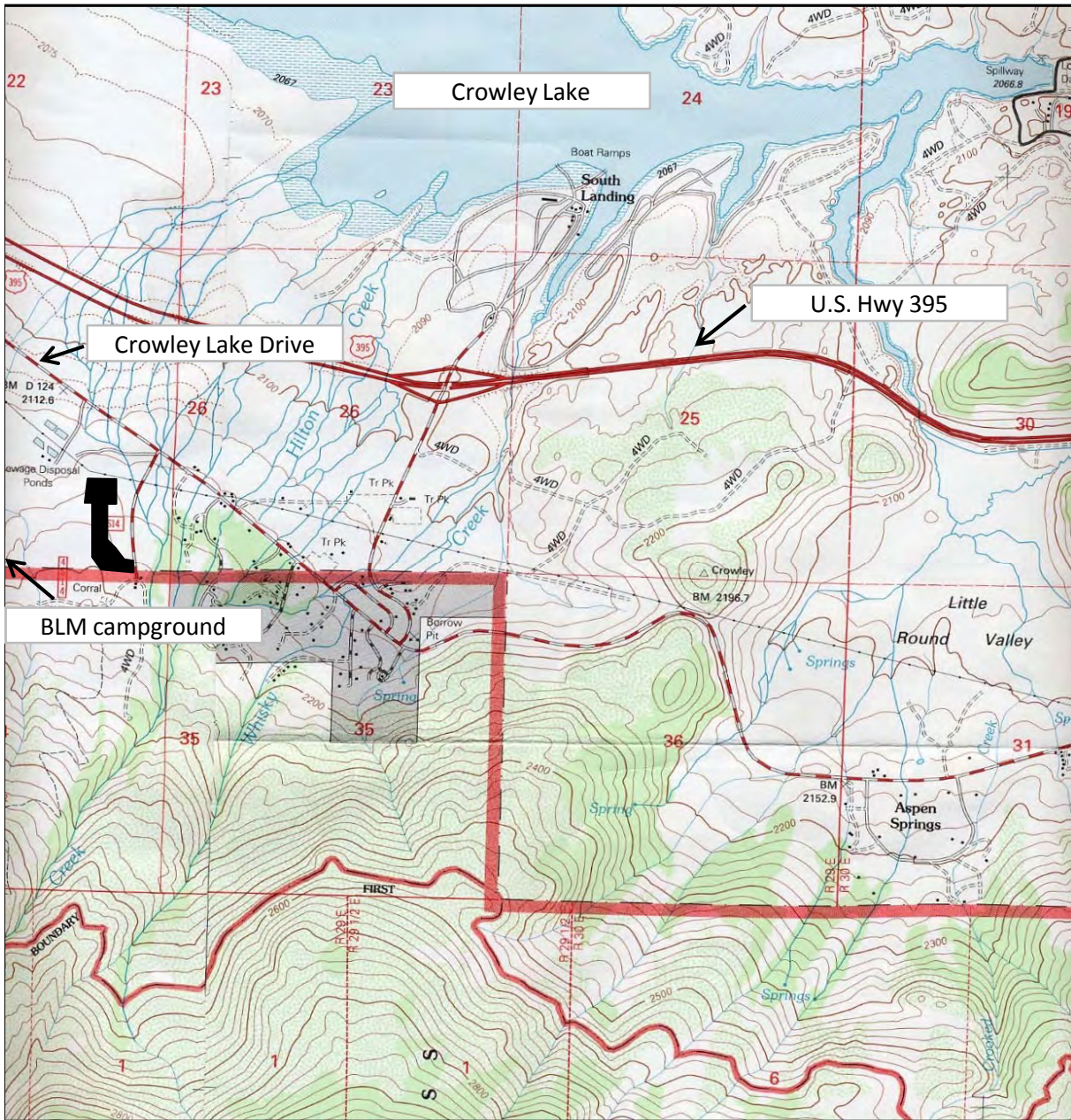
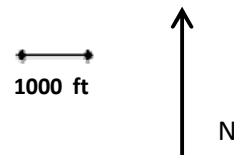


Figure 1. Location of area surveyed for biological resources in August 2011. The proposed project is a wireless telecommunications facility and approach road near the Town of Crowley Lake, Mono County, California. The extent of the survey work performed to inventory plant communities and species and search for potentially occurring rare plants and special status wildlife species is shaded in black.



Big Sagebrush Scrub (treated as 35100 Great Basin Mixed Scrub by Holland, 1986), which is community code 35.110.07 (CDFG, 2003), is an *Artemisia tridentata* – *Purshia tridentata* alliance (CDFG, 2007). The Big Sagebrush Scrub community is a Great Basin scrub type that is common in Mono County, and is widespread on the eastern slopes of the Sierra Nevada and throughout the Great Basin Floristic Province (Sawyer, et al, 2009). The native shrub canopy averages 2 ft in height and provides a uniform 20-30% living cover.

Maturing big sagebrush (*Artemisia tridentata*) clearly dominate the site, making up to 80% of the shrub layer. The canopy also regularly includes bitterbrush (*Purshia tridentata* var. *glandulosa*), curl-leaf rabbitbrush (*Chrysothamnus viscidiflorus*), spineless horsebrush (*Tetradymia canescens*), desert peach (*Prunus andersonii*) and snowberry (*Symphoricarpos rotundifolius*). The aggregate relative frequencies of these species and low buckwheats (*Eriogonum umbellatum* and *E. microthecum*) increases to near 20-50% on the plateau-like and densely boulder-strewn crest of the moraine, where most of the proposed roadway and all of the facility installation will occur. Trees are absent. The understory is not diverse, and the total cover contributed by the perennials sandwort (*Eremogone congesta*), silvery lupine (*Lupinus argenteus* var. *heteranthus*) and several native grasses (Appendix A) rarely exceeds 5%.

Bitterbrush usually contributes a relatively minor (5-10%) fraction of the shrub layer living cover. Within the project area, bitterbrush (also known as antelope bush) canopies exhibited consistent but sparse evidence of recent grazing. Nevertheless, most individuals atop the moraine appeared to be somewhat stunted in stature. This condition contrasts markedly with the general condition of bitterbrush that is growing at the base of the moraine (off-site) nearer the Hilton Creek riparian corridor, as *P. tridentata* var. *tridentata* individuals growing there are tall but have developed a “topiary” form due to heavy browsing use by deer.

The entire project area is infested with the non-native annual cheat grass (*Bromus tectorum*). This species has become widespread in Mono County scrub habitats, and most habitats in close proximity to U.S. Highway 395 are either currently supporting or in high danger of being invaded by this noxious weed. Cheat grass, which is the most abundant annual occurring within the project area assemblage in 2011, is an invasive noxious weed as defined by the California Exotic Pest Plant Council (CalEPPC code A-1: “are the most invasive pest plants, and are already widespread”). High density cheat grass stands are thought to increase the risk and frequency of wildfire (CalEPPC, 1999). Perennial desert wheatgrass (*Agropyron desertorum*) was the only other non-native species found within the project limits.

Disturbances to the project area’s plant community may encourage further local spread of cheat grass. Devegetation and soil disturbance may also open new habitats for non-native species that currently have become naturalized in nearby town habitats, such as Russian thistle (*Salsola tragus*). Cheat grass currently occurs at < 1% absolute cover. Non-native perennial grasses that regionally have become naturalized members of the roadside assemblage (i.e., wheatgrasses *Agropyrum desertorum*, *A. cristatum*) should be avoided in any reseeding palette, so that the predominantly native character of the extant vegetation may be preserved.

Rare plant communities and species

A list of rare plant species that could have some potential to occur within Big Sagebrush Scrub at the project site was compiled (Table 1), based upon a review of regional data (Mono County Planning Dept., 2001, Halford and Fatooh, 1994, California Native Plant Society (CNPS), 2001, 2011, CalFlora, 2011, California Department of Fish and Game (CDFG), 2011a, 2011b), published regional floras (Hickman, 1993, Jepson Herbarium, 2011), botanical surveys that have been performed for the preparation of environmental documents for nearby projects (Paulus, 2005, 2010, Christopher A. Joseph and Assoc., 2007, Federal Aviation Administration, 2007), and an August 2010 search of the California Natural Diversity Database (CNDDDB) records for the USGS Convict Lake, Old Mammoth, Whitmore Hot Springs, Watterson Canyon, Bloody Mtn, Tom's Place, Graveyard Peak, Mt Abbott, and Mt Morgan quadrangles (CDFG, 2011c). Potentially occurring plant species were considered to be "rare" if they have current state or federal status as rare, threatened or endangered (CDFG, 2011a), or are listed in the CNDDDB list of special plants (CDFG, 2011b), or are listed by CNPS in their inventory of sensitive California plants (CNPS, 2001, 2011), or are included in the most recent sensitive plant or watch lists prepared by Inyo National Forest (U.S. Forest Service, 2006a, 2006b).

Table 1. Rare plant species that potentially could occur at the proposed project. Flowering period data is from CNPS (2001). None of these species are federally listed. A key to the rank or status symbols follows the table.
NL = not listed.

Scientific Name Common Name Life Form	Rank or Status				Habitat	Flowering Period
	USFS	CDFG	CNPS	NDDDB		
<i>Arabis cobrensis</i> Masonic rock cress herbaceous perennial	NL	NL	2.3	S1S2	sagebrush scrub	June-July
<i>Astragalus johannis-howellii</i> Long Valley milkvetch herbaceous perennial	S	R	1B.2	S2.2	sagebrush scrub	June-August
<i>Astragalus monoensis</i> ¹ Mono milkvetch herbaceous perennial	S	R	1B.2	S2.2	open pumice soils	June-August
<i>Boechea dispar</i> ² pinyon rock cress herbaceous perennial	W	NL	2.3	S2.3	xeric scrub, woodland	March-June
<i>Camissonia boothii</i> ssp. <i>boothii</i> Booth evening primrose herbaceous annual	NL	NL	2.3	S2	sagebrush scrub	April-May

Scientific Name Common Name Life Form	Rank or Status				Habitat	Flowering Period
	USFS	CDFG	CNPS	NDDB		
<i>Camissonia boothii</i> ssp. <i>intermedia</i> Booth hairy evening primrose herbaceous annual	NL	NL	2.3	S2.3	sagebrush scrub, fire scars	June
<i>Lupinus duranii</i> Mono Lake lupine herbaceous perennial	S	NL	1B.2	S2.2	open scrub, pumice	May-July
<i>Thelypodium integrifolium</i> ssp. <i>complanatum</i> foxtail thelypodium herbaceous perennial	NL	NL	2.2	S2.2	sagebrush scrub, mesic	June- October

Rank or status, by agency:

USFS = US Forest Service, Inyo National Forest, Bishop Office (2006a, 2006b)

S = Sensitive List, October 2006

W = Watch List, October 2006

CDFG = California Department of Fish and Game listings under the Native Plant Protection Act and the California Endangered Species Act (CDFG, 2011a).

R = Rare

CNPS = California Native Plant Society listings (CNPS, 2001, 2011)

1B = rare and endangered in California and elsewhere

2 = rare, threatened or endangered in California, but more common elsewhere

Threat Code extensions:

.1 is Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2 is Fairly endangered in California (20-80% of occurrences threatened)

.3 is Not very endangered in California (< 20% of occ's threatened or no current threats known).

NDDB = California Natural Diversity Data Base rankings by the CDFG (CDFG, 2011b)

S1 is < 6 occurrences or < 1000 individuals or < 1000 acres

S2 is 6-20 occurrences or 1000-3000 individuals or 2000-10000 acres

"threat numbers" follow decimal:

.1 = very threatened, .2 = threatened, .3 = no threat currently known.

Footnotes:

1. syn. *Astragalus monoensis* var. *monoensis*

2. syn. *Arabis dispar*

The CNDDDB records and literature search results indicate that eight rare plant species and one sensitive plant community (Mono Pumice Flats) occur within 15 miles of the project and in montane scrub settings that bear some resemblance to habitats available within the project. One additional species not found in CNDDDB records, the rock cress *Arabis cobrensis*, is included because it occurs 5.8 miles north in vegetation resembling the project area's xeric scrub (Paulus, 2010). Potentially occurring rare plant species, except the two *Camissonia boothii* ssp.s., are herbaceous perennials. They would be expected to be exhibiting leaves, maturing or mature fruit, and in most cases flowers in August. Both *Camissonia boothii* ssp.s. are annuals whose expected phenologies in

August would be dispersing fruit or senesced (Table 1). The milkvetches *Astragalus johannis-howellii* and *A. monoensis* are state listed Rare species. None are federal listed or candidate species.

No previously documented on-site occurrences of rare plant species appear in CNDDDB records (Appendix B). This information, however, must be interpreted in the general context that the absence of CNDDDB records concerning the project area does not signify that rare plants are absent, rather that none have been reported. All of the species considered to have some possibility of occurrence within the project area (Table 1) are known to occur or have been historically documented (some may now be extirpated) within 15 miles to the north, east or west. Visits to nearest known populations of *Lupinus duranii*, *Astragalus monoensis*, *Astragalus johannis-howellii*, and *Arabis cobrensis* during the period August 8-16, 2011 suggest an extended flowering period in 2011 for all of these species, likely in response to relatively moist and cool late spring weather. These reference populations, with the exception of *Arabis cobrensis* at Mammoth-Yosemite Airport, exhibited leaves, flowers and maturing fruit. *A. cobrensis* exhibited leaves and mature fruit only.

Rare plants known to occur in nearby alkaline meadow or scrub habitats (*Atriplex pusilla*, *Calochortus excavatus*, *Crepis runcinata* ssp. *hallii*, *Ivesia kingii* var. *kingii*, *Micromonolepis pusilla*, *Phacelia gymnoclada*, *Phacelia inyoensis*, and *Sphaeromeria potentilloides* var. *nitrophila*) may be excluded as very unlikely to occur, because their relatively moist habitat and alkaline or saline soil habitats are not present within the area where vegetation may be disturbed. Similarly, locally occurring rare species that are restricted to freshwater streamside habitats (e.g., *Astragalus lemmonii*, *Botrychium* spp., *Carex scirpoidea* ssp. *pseudoscirpoidea*, *Draba praealta*, *Epilobium howellii*, *Helodium blandowii*, *Ivesia unguiculata*, *Kobresia myosuroides*, *Parnassia parviflora*, *Salix* spp., *Stuckenia filiformis*, and *Triglochin palustris*) may be excluded because the scrub vegetation present across the entire project area is uniformly xeric. Suitably wet habitat for these species does not occur. If the project will create any runoff-related disturbance to downslope (nearby offsite) meadow habitats associated with the nearest of the long-standing diversions of Hilton Creek, then the pre-project analysis should be extended to include consideration of potential effects upon these species.

Community descriptions were developed and searches for rare plant populations were conducted (per CDFG, 2009) on August 13 and 19, 2011. Annual species were generally senescing or dried on these dates, and appeared to have germinated only sparsely in 2011. All species encountered were identified. Any species that were not recognized at once were keyed by the consulting botanist using The Jepson Manual (Hickman, 1993) or the Intermountain Flora (Cronquist, *et al.*, 1984). Plants were identified to a level of taxa that was sufficient to determine rare species presence or absence. The approach route search corridor was 150 ft wide, except in the areas of the cut/fill 90 degree turn and the t-bone at the facility entrance where the corridor was widened to 300 ft. The search area for the pad and tower included a buffer of 200 ft in all directions.

Rare plant populations were not found during the field survey. Only common plant species occur in the area that would be disturbed by construction (Appendix A). No members of the genus *Arabis*, *Boechera*, *Astragalus*, or *Thelypodium* occur in the project

area. The common species *Lupinus argenteus* var. *heteranthus* was readily separated from the potentially occurring *L. duranii* by its relatively tall and lanky growth form. No populations of senescing or dried annuals bearing glandular-hairy flower stems or sessile dehiscent fruits were found, as would be expected if *Camissonia boothii* were present. Mono Pumice Flats, an *Ericameria parryi* – *Achnatherum occidentale* association that occurs at 7580 ft at Smokey Bear Flat 13 mi north of the project site, would be signaled by clear frequency shifts in the shrub canopy and by pumice gravels that do not occur within the project area. Based upon these findings, it is unlikely the project will affect any sensitive plant communities or rare plant populations.

Habitat for Wildlife

A review of wildlife that may potentially occupy or use the Big Sagebrush Scrub habitat available at the proposed telecommunications facility project was conducted in August 2011. Construction would occur in undeveloped but historically disturbed and more recently burned upland scrub. Existing facilities that are nearby and may influence wildlife usage of the project site include two sets of power poles that cross the moraine immediately north of the proposed tower site, the fire department station at Crowley Lake, a BLM campground, and LADWP water-spreading ditches. Long-standing ditch-like diversions of Hilton Creek spread water across the landscape to the north and west, including one perennially watered stretch with associated riparian vegetation that crosses adjacent to the foot of the moraine upon which most of the proposed project would occur. While these existing facilities and nearby human developments may be thought of as restrictive to some degree for wildlife usage of the project area, the landscape position of this moraine – between the expansive Sierran front habitats to the south and west, and important Hilton Creek resources to the north and east – imparts significance to the habitat that will be disturbed.

No sensitive wildlife species were observed during survey work conducted on August 13 and 19, 2011. No nests were observed within the scattered piles of boulders that intersected the survey area (as delineated above), in shrub canopies that would be removed or disturbed by project construction, or on power poles that cross the moraine offsite near the proposed location of the tower. Wildlife observed on that date included common species such as quail (*Callipepla californica*), green-tailed towhee (*Pipilo chlorurus*), raven (*Corvus corax*), and ground squirrel (*Spermophilus beecheyi*). The on-site scrub vegetation has recovered from fire approximately one decade ago and now has achieved 20-30% total canopy closure, providing resources for wildlife cover, foraging, roosting, and breeding. Soils underneath the shrub canopies would typically provide foraging and cover (including burrowing) habitat for voles (*Microtus*), deermice (*Peromyscus*), and pocket mouse (*Perognathus parvus*). These animals may become prey for coyote (*Canis latrans*), and various raptors. Bitterbrush (*Purshia tridentata*), present at low frequency in the shrub canopy, is considered an important forage species for mule deer (*Odocoileus hemionus*).

Special Status Wildlife Species

Based upon a review of available regional data (Mono County Planning Dept., 2001, Federal Aviation Administration, 2007, CDFG, 2011d, 2011e.), and an August 2010 search of the California Natural Diversity Database (CNDDDB) records for the USGS Convict Lake, Old Mammoth, Whitmore Hot Springs, Watterson Canyon, Bloody Mtn, Tom’s Place, Graveyard Peak, Mt Abbott, and Mt Morgan quadrangles (CDFG, 2011c), four special status wildlife species were identified as having some potential to occur at the project site (Table 2). It is possible although unlikely (for reasons described below) that these species use the available habitats for foraging, roosting, or nesting. “Special status wildlife species”, as used in this report, meet the definitions or rare or endangered under the California Environmental Quality Act (Section 15380 CEQA Guidelines), or are considered candidates for state or federal listing as threatened or endangered, or are listed by local agencies as locally rare.

The August 2010 CNDDDB records review did not uncover any previously documented occurrences of special status wildlife species within the area that would be directly disturbed by construction of the proposed project. This information, however, must be interpreted in the general context that the absence of CNDDDB records concerning the project area does not signify that special status wildlife species are absent, rather that none have been reported. One additional species, *Taxidea taxus* (American badger), is considered to have some potential to use the site, based upon an occurrence documented in sagebrush scrub near Mammoth Creek, 11 miles east (C.A. Joseph and Assoc., 2007).

Table 2. Special status wildlife species that could potentially occur within the area of the proposed Vista Towers wireless telecommunications facility and approach road. Key to status codes (CDFG, 2011e) is given below, NL = not listed.

species	status		habitat
	state	federal	
birds			
<i>Centrocercus urophasianus</i> greater sage grouse (nesting, leks)	SC	FC	sagebrush scrub
mammals			
<i>Gulo gulo</i> wolverine	Threatened	FC	many habitats including sagebrush scrub
<i>Lepus townsendii townsendii</i> white-tailed jackrabbit	SC	NL	sagebrush scrub
<i>Taxidea taxus</i> American badger	SC	NL	sagebrush scrub

State = CDFG under the California Endangered Species Act (SC = Species of Special Concern)
Federal = USFWS under the Endangered Species Act (FC = Federal Candidate for Listing)

Based upon an August 19 observation of the vegetation that surrounds the area of the nearest occupied lek site (3.4 miles northeast, as documented by CDFG, 2011c, FAA, 2007), sagebrush scrub that is available within the proposed project area (and across the moraine generally) appears to be similar to scrub occupied by greater sage grouse, in terms of shrub canopy density and composition. The near-lek reference stand, however, did not show evidence of recent fire and was not adjacent to pole lines or other perches that would be atypical of the relatively undisturbed sagebrush scrub habitat. Two wooden pole lines that cross perpendicular to the moraine north of the project provide perches at 40-50 ft height that oversee much of the project area. In all, five single and two double poles are situated on the moraine. Raptors that could pass through the area, and may use these pole tops and upper crossarms currently available on the moraine (roughly 2 m² of total perch area), would include bald eagle (*Haliaeetus leucocephalus*), which have been observed perching on poles near the airport six miles north (Jones & Stokes, 2001), Cooper's hawk (*Accipiter cooperi*), sharp-shinned hawk (*Accipiter striatus*), and Swainson's hawk (*Buteo swainsoni*). One adult and one juvenile raven were observed using these poles on August 19.

The project's 7150 ft (2180 m) elevation is outside the normal range of Sierra Nevada bighorn sheep (*Ovis canadensis sierrae*), whose preferred year-round habitat is steep mountain slopes at elevations greater than 9000-10000 ft (2750-3050 m). No buildings, bridges, trees, stumps, mines, or caves that could be used by potentially occurring special status bats occur within the proposed project site. Piles of large boulders were searched closely for nesting birds and roosting bats during the August survey, finding no animals and no guano accumulations. Myotis bats (including *Myotis evotis*, *M. thysanoides*, *M. volans*, and *M. yumaensis*) and Townsend's big-eared bat (*Corynorhinus townsendii*) may use structural habitat elements for day roosting, breeding and hibernation. While suitable foraging habitat may be present nearby, the absence of inhabited roosting structures makes it unlikely that any bats will be affected by project construction. The absence of forest habitat within or adjacent to the project site precludes significant use of the area by northern goshawk (*Accipiter gentiles*), great grey owl (*Stryx nebulosa*), fisher (*Martes pinnanti*), and Sierra Nevada red fox (*Vulpes vulpes necator*).

Limited habitats that are considered crucial to survival (limited nesting locations for gulls on islands in Mono Lake is an example) were not uncovered for any special status wildlife species that may occur within the project area. The one critical habitat designation that (broadly) intersects the project area is for the fish Owens tui chub (*Siphateles bicolor snyderi*), an Owens River endemic. Aquatic habitat does not occur within the area of direct construction impacts. However, a managed water-spreading ditch, which was watered by capture of high groundwater (control gates were closed) at the time of survey, passes immediately downslope of the foot of the moraine. It seems unlikely that the managed flows in this Hilton Creek diversion are dependable and sufficient to support potentially occurring sensitive fish. However, if the project will generate runoff to this area or otherwise affect these existing downslope aquatic habitats then the analysis of project effects should be expanded to include the species *Catostomus fumeiventris* (Owens sucker), *Rhynchithis osculus* ssp. 2 (Owens speckled dace), and *Siphateles bicolor snyderi*, and additional potentially occurring species such as *Anaxyrus canorus* (Yosemite toad), *Rana sierrae* (Sierra Nevada yellow-legged frog), *Circus*

cyaneus (northern harrier), *Empidonax traillii* (willow flycatcher), *Hydromantes platycephalus* (Mt. Lyell salamander), and *Sorex lyallii* (Mt. Lyell shrew) that may reside, nest or forage in riparian habitats (entirely offsite) that are associated with this ditch.

Greater Sage Grouse

Greater sage grouse are specialist species that are more or less restricted to a single habitat type in Mono County, open sagebrush scrub (Mono County Planning Dept., 2001). Greater sage grouse are threatened by development that disturbs the habitat and disrupts breeding. Documented uses of sagebrush scrub habitat by members of the South Mono Basin Population Management Unit include foraging, nesting, and breeding (FAA, 2007). The nearest lek site and associated nesting and brooding area is located in open areas in expanses of relatively undisturbed sagebrush scrub north of U.S. Hwy 395.

Habitat modifications, especially those associated with the U.S. Hwy 395 corridor and the long-standing pole line emplacements on the moraine where the project would occur, have reduced the likelihood that greater sage grouse use scrub resources available at the project site. The highway, the nearby BLM campground, and the Town of Crowley Lake have become significant barriers to emigration from the known use area to the north of the highway. Suitable sagebrush foraging and potential nesting habitat at the project site have thus become moderately isolated. Openings in the shrub canopy resembling local leks do not occur in the project area. The available cover is relatively short and may be insufficient for nesting. It is typical for females to disperse into scrub cover seeking relative isolation during nesting, choosing cover that averages near 50% (Casazza, et. al., 2005), or roughly twice the 20-30% cover density present within the project area. As there are significant ecological barriers to dispersal to the project area, and the habitat has for decades been compromised by emplacement of high poles that are not fitted with deterrence to perching by potential predators, it is unlikely that nesting sage grouse will be affected by the project. If any project element increases the local availability of high perches for predators, the overall availability of the entire area for foraging use will be further diminished.

Wolverine

Wolverine are typically found at higher elevations in the Sierra Nevada, where they occupy lodgepole pine and mixed conifer forest habitats. Neither of these habitats is available in the project area. However, the 1950 sighting at Crowley Lake, 2.6 miles to the east (CDFG, 2011c) in habitat that is broadly similar to the scrub habitat within the project area and at a similar elevation, is evidence that occurrence within the project area cannot be excluded. As discussed above for greater sage grouse, the available habitat for wolverine would be considered marginal for foraging, due to relatively high levels of nearby human development, and isolation of the scrub habitat. Loss of a small area of this scrub habitat would not have a significant effect on wolverine that may travel through the area.

Western White-tailed Jackrabbit

Western white-tailed jackrabbits are thought to inhabit a variety of montane habitats in the Eastern Sierra Nevada, most commonly those such as Big Sagebrush Scrub that have a significant shrub component. It is mainly nocturnal when foraging. It is very uncommon, but may migrate to lower elevation scrub during summer months in this region (C.A. Joseph and Assoc., 2007).

Presence of this species within the project area could be detected during winter months by searching for forms in the snow. In other season, they would be more difficult to detect. No hare-sized burrows that could be appropriated by western white-tailed jackrabbit were found during the August survey, however pellets attributable to a rabbit or hare species were found. As discussed above for greater sage grouse, any project element that would increase the local availability of high perches for predators would further diminish the overall availability of the entire area for foraging use. Loss of a small area of scrub habitat would not have a significant effect on highly mobile hares that may travel through the area.

American Badger

American badger produce abundant sign in areas where they forage or reside in burrow-like holes. These highly mobile and adaptive animals occupy a wide range of habitats and elevations in California. The burrows created as badgers dig for small mammalian prey are relatively large and conspicuous. Badgers have been documented to occur within 15 miles of the project area, in scrub habitat near Mammoth Creek.

No signs of badger were observed during the August 2011 survey. Small rodent burrows, which were often abundant, had not been recently excavated by badger within the survey area. The area that will be devegetated by the project represents a very small fraction of the regionally available habitat. As no records of recent and nearby sightings were uncovered, and no evidence of recent use of the project area was detected, it is very unlikely that the removal of potential foraging habitat will significantly affect any American badger.

Mule Deer

Mule deer are considered important harvest species by the CDFG. Mule deer herds in Mono County are defined by their winter ranges, where they migrate to lower elevations on the Eastern Sierra to forage among pine forest, pinyon-juniper woodland, and sagebrush scrub habitats. The location of the project site is generally within the migrational corridor used by the Round Valley Herd. Scrub habitats, especially those with a highly palatable browse component, provide crucial resources for “resident” adult reconditioning and fawn survival in late spring through early fall months (Monteith, et. al., 2009).

Characteristics of the vegetation at the project site meet the habitat requirements for mule deer that enter the area to hold or forage as residents, or who pass through the area during normal migration. Bitterbrush, an important browse species, is present and

would be affected by the project. However, the bitterbrush available within the project area (subspecies *glandulosa*) appears to be used with far less intensity than bitterbrush that is growing immediately offsite around the foot of the moraine (mainly subspecies *tridentata*). The main use of the project area by resident deer may be as a movement corridor. Pellet density is high across the site, especially at the numerous visible trails that have been created by deer traveling north to south along the top of the moraine. Tracks are similarly dense, and in August (during a time of use by resident but not migratory animals) these tracks characteristically enter the project site as the proposed access road alignment climbs to the top of the moraine, then parallel this alignment to the downslope terminus of the moraine, finally descending to the meadow and riparian communities associated with the Hilton Creek diversion. These trails are interbraided, and in August included tracks of adults and fawns at heel. Mule deer will travel daily to surface water, especially as forage dries in late summer or when fawns are present (Tim Taylor, personal communication August 2011). The attractiveness of the moraine top (including most of the project area) for this necessary movement may lie in the slightly depressed topography running its length (north to south). From the perspective of resident mule deer, this depression is a corridor of relative darkness, the only one locally available that is shielded from significant night lighting and activity associated with BLM campground facilities to the west and the fire station (and Town of Crowley Lake) to the east. If this corridor is not compromised by new linear barriers to movement or night lighting created by the proposed project, then it is unlikely resident deer movements will be significantly affected.

CDFG has developed specific plans for management of herds (in this case, the Round Valley Herd) that emphasize the importance of designing projects so that a minimum of new barriers to deer migration are emplaced. Deer kill by motorists, especially on Highway 395, is considered one of the main causes of deer mortality in Mono County (Mono County Planning Dept., 2001). Signs such as increased herbivory and very wide trails trending east to west that were observed at the base of the moraine suggest the moraine may “channel” spring and fall migratory deer toward habitats that are offsite to the north of the project area. Similar east-west trending deer trails are absent from the project area and moraine upper slopes generally. Any project elements that would result in new linear barriers or other deterrents to resident and migratory deer movements may cause loss of access to crucial resources associated with Hilton Creek riparian communities and adjacent high-quality bitterbrush stands. Furthermore, these movements may be then shifted to the north, where the risk of mortality due to vehicle collisions would be greater.

Conclusions

No rare plant species or sensitive vegetation communities will be affected by revegetation proposed during project implementation. The area of Big Sagebrush Scrub that will be disturbed represents a very small fraction of the large area of similar habitat in the region. Significant effect upon wildlife including special status species is very unlikely. There will be no effect on the availability of marginal scrub habitat to foraging

greater sage grouse, unless the project creates high perches for predators. Unless the project creates new lighting or linear barriers to movement of mule deer, no important wildlife movement corridor is expected to be affected. There will be no effect on mule deer unless implementation causes loss of access to surface water and riparian resources, or increases highway crossings by altering the current patterns of resident and migratory movement.

References

- Calflora, 2011. The Calflora database: Information of California plants for education, research, and conservation. www.calflora.org, Berkeley.
- Casazza, ML, Overton, CT, and Torregrosa, A, 2005. Ecology of greater sage grouse in the Bi-State Planning Area. USGS, Western Ecological Research Center, Menlo Park.
- California Department of Fish and Game, 2003. List of Terrestrial Natural Communities Recognized by the California Natural Diversity Database, rev. Sept. 2003. Habitat Conservation Division, Wildlife and Habitat Data Analysis Branch, Sacramento.
- California Department of Fish and Game, 2007. List of California Vegetation Alliances, rev. Oct. 2007. Vegetation Mapping and Classification Program, Biogeographic Data Branch, Sacramento.
- California Department of Fish and Game, 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. The Resources Agency, State of California, Sacramento.
- California Department of Fish and Game, Natural Diversity Database, 2011a. State and Federally Listed Endangered, Threatened, and Rare Plants of California (revised July 2011). Resource Management and Planning Division, Biogeographic Data Branch, Sacramento.
- California Department of Fish and Game, Natural Diversity Database, 2011b. Special Vascular Plants, Bryophytes and Lichens List (revised July 2011). The Resources Agency, State of California, Sacramento.
- California Department of Fish and Game, 2011c. Search results for the Convict Lake, Old Mammoth, Whitmore Hot Springs, Watterson Canyon, Bloody Mtn, Tom's Place, Graveyard Peak, Mt Abbott, and Mt Morgan quadrangles. CDFG Natural Heritage Division, Plant Conservation Program, Sacramento, August 11, Rarefind 3.1.0.
- California Department of Fish and Game, Natural Diversity Database, 2011d. State and Federally Listed Endangered, Threatened, and Rare Animals of California (revised January 2011). Resource Management and Planning Division, Biogeographic Data Branch, Sacramento.
- California Department of Fish and Game, 2011e. California Natural Diversity Database: Special Animals List (revised January 2011). The Resources Agency, State of California, Sacramento.
- California Exotic Pest Plant Council, 1999. Exotic Pest Plant List. California Exotic Pest Plant Council, Sacramento.
- California Native Plant Society, 2001. Inventory of Rare and Endangered Plants of California, 6th Edition. Special Publ. 1, California Native Plant Society, Sacramento.

- California Native Plant Society, 2011. Inventory of Rare and Endangered Plants (on-line edition updates, v. 7-11). CNPS, Sacramento.
- Christopher A. Joseph and Associates, 2007. Snowcreek VIII, Snowcreek Master Plan Update – 2007 Draft Environmental Impact Report SCH #2006112015. August, 2007. Prepared for Town of Mammoth Lakes.
- Cronquist, A, Holmgren, A, Holmgren, NH, Reveal, JL, and Holmgren, PK, 1984. Intermountain Flora. Columbia University Press, New York.
- Federal Aviation Administration, 2007. Draft Environmental Impact Statement: Request for operations specifications amendment by Horizon Air to provide scheduled air service to Mammoth Yosemite Airport, Mammoth Lakes, Mono County, California. Northwest Mountain Region, Renton, Washington.
- Halford, A, and Fatooh, J. 1994. Bishop Resource Area special status plant field guide. Bureau of Land Management, Bishop Resource Area, Bishop.
- Hickman, J. 1993. The Jepson Manual of Higher Plants of California. University of California Press, Berkeley.
- Holland, RF, 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Non-game Heritage Program, The Resources Agency, California Department of Fish and Game, Sacramento.
- Jepson Herbarium, 2008. Index to California Plant Names. Jepson Online Interchange for California Floristics (revised February 8, 2008). University of California, Berkeley.
- Jones & Stokes, 2001. Biological assessment for the Mammoth-Yosemite Airport Expansion Project, Mono County, California. Draft report dated March 2001, prepared for U.S. Forest Service, Mammoth Ranger District, Mammoth Lakes, California.
- Mono County Planning Department. 2001. Master Environmental Assessment for Mono County. Mono County Planning Department, Bridgeport.
- Monteith, KL, Bleich, BC, Stephenson, TR, and BK Pierce, 2009. Population dynamics of mule deer in the Eastern Sierra Nevada: Implication of nutritional condition. Report prepared for California Department of Fish and Game, Bishop, CA.
- Natural Resource Conservation Service, 1996. Draft Soil Survey for Mono County, California. Bishop NRCS.
- Paulus, J, 2005. Birchim CSD proposed well site assessment of botanical resources. Report dated August 24, 2005, prepared for the Bauer Planning and Environmental Services, Inc., Irvine, California.
- Paulus, J, 2010. Botanical survey for the Proposed Mammoth-Yosemite Airport Access Road. Report dated July 25, 2010, prepared for the Town of Mammoth Lakes, California.
- Sawyer, JO, Keeler-Wolf, T, and Evens, JM, 2009. A Manual of California Vegetation, 2nd Ed. California Native Plant Society, Sacramento.
- U.S. Forest Service, 2006a. Inyo National Forest Sensitive Plant List, June 1998. Inyo National Forest, Bishop.
- U.S. Forest Service, 2006b. Inyo National Forest Watch List for Plants, December 1998. Inyo National Forest, Bishop.

Appendix A. List of plant species occurring at the proposed Vista Towers Wireless Telecommunications Facility near Crowley Lake, Mono County, California. Habit summarizes the growth form of each species. Codes are defined below.

Plant Families and Species		Habit
Dicots		
Apiaceae		
	<i>Lomatium</i> sp.	lomatium NPH
Asteraceae		
	<i>Artemisia tridentata</i>	big sagebrush NS
	<i>Chaenactis stevioides</i>	desert pincushion NAH
	<i>Chrysothamnus viscidiflorus</i>	curl leaf rabbitbrush NS
	<i>Crepis</i> sp.	hawksbeard NPH
	<i>Ericameria nauseosa</i> var. <i>hololeuca</i> ¹	rubber rabbitbrush NS
	<i>Pleiacanthus spinosus</i> ²	wire lettuce NPH
	<i>Tetradymia canescens</i>	spineless horsebrush NS
	<i>Wyethia mollis</i>	mules ears NPH
Boraginaceae		
	<i>Cryptantha</i> sp.	forget-me-not NAH
	<i>Cryptantha confertiflora</i>	yellow cryptantha NPH
Brassicaceae		
	<i>Erysimum capitatum</i>	western wallflower NPH
Cactaceae		
	<i>Opuntia polyacantha</i> var. <i>erinacea</i> ³	Utah prickly pear NS
Caprifoliaceae		
	<i>Symphoricarpos rotundifolius</i>	snowberry NS
Caryophyllaceae		
	<i>Eremogone congesta</i> var. <i>suffrutescens</i> ⁴	sandwort NPH
Fabaceae		
	<i>Lupinus argenteus</i> var. <i>heteranthus</i>	silver lupine NPH
Lamiaceae		
	<i>Monardella odoratissima</i> ssp. <i>odoratissima</i>	mountain monardella NPH
Polemoniaceae		
	<i>Eriastrum sparsiflorum</i>	few-flowered eriastrum NAH
	<i>Leptosiphon nuttallii</i> ssp. <i>pubescens</i> ⁵	Nuttall leptosiphon NPH
	<i>Phlox stansburyi</i>	Stansbury phlox NPH
Polygonaceae		
	<i>Eriogonum baileyi</i> var. <i>baileyi</i>	Bailey buckwheat NAH
	<i>Eriogonum elatum</i> var. <i>elatum</i>	woolly buckwheat NPH
	<i>Eriogonum microthecum</i> var. <i>laxiflorum</i>	Great Basin buckwheat NS
	<i>Eriogonum umbellatum</i> var. <i>nevadense</i>	sulphur flower NS
	<i>Oxytheca dendroidea</i> ssp. <i>dendroidea</i>	narrowleaf oxytheca NAH

Plant Families and Species

Habit

Rosaceae			
	<i>Prunus andersonii</i>	desert peach	NS
	<i>Purshia tridentata</i> var. <i>glandulosa</i>	bitterbrush	NS
	<i>Purshia tridentata</i> var. <i>tridentata</i>	antelope bush	NS
Rubiaceae			
	<i>Galium multiflorum</i>	manyflowered bedstraw	NPH
Scrophulariaceae			
	<i>Cordylanthus tenuis</i> ssp. <i>tenuis</i>	slender bird's beak	NA\$
Monocots			
Cyperaceae			
	<i>Carex douglasii</i>	Douglas sedge	NPGL
Poaceae			
	<i>Achnatherum hymenoides</i>	indian ricegrass	NPG
	<i>Achnatherum nevadensis</i>	Nevada needlegrass	NPG
	<i>Achnatherum occidentale</i>	western needlegrass	NPG
	<i>Achnatherum speciosum</i>	desert needlegrass	NPG
	<i>Agropyron desertorum</i>	desert wheatgrass	IPG
	<i>Bromus tectorum</i>	cheat grass	IAG
	<i>Elymus elymoides</i> ssp. <i>elymoides</i>	squirreltail grass	NPG
	<i>Leymus triticoides</i>	creeping wildrye	NPG

1. syn. *Chrysothamnus nauseosus* ssp. *hololeucus*
2. syn. *Stephanomeria spinosa*
3. syn. *Opuntia erinacea* var. *utahensis*
4. syn. *Arenaria congesta* var. *suffrutescens*
5. syn. *Linanthus nuttallii* ssp. *pubescens*

key to growth habit codes:

A	annual
B	biennial
G	grass
GL	grass-like
H	herb
I	introduced
N	native
P	perennial
S	shrub
T	tree
\$	parasitic

Appendix B. Results of CNDDDB search of the USGS Convict Lake, Old Mammoth, Whitmore Hot Springs, Watterson Canyon, Bloody Mtn, Tom's Place, Graveyard Peak, Mt Abbott, and Mt Morgan quadrangles conducted in August 2011. The project area supports a single plant community type, Big Sagebrush Scrub, which is an upland, non-alkaline tolerant assemblage. Trees are absent. The average elevation is 2180 m.

Species	Federal	State	CNPS	elevation range (m)	habitat range	nearest occurrence	likelihood of occurrence at project
Plants							
Federal Listed and State Listed							
<i>Astragalus johannis-howellii</i>		Rare	1B.2	2040-2530	sandy loam in Great Basin scrub, Mono County and Nevada	A large population (in 2011) occurs in sandy volcanic soil, Big Sagebrush Scrub at Whitmore Hot Springs, 2090 m (6880 ft) 5.4 miles north.	Soil at project is granitic, but some likelihood exists due to proximity and vegetation type similarity.
<i>Astragalus monoensis</i> ¹		Rare	1B.2	2110-3350	sandy or gravelly pumice in Great Basin scrub or Mono Pumice Flats, Mono County	Rock Creek disturbed roadside at Aspen Park Group Camp (extant?), 8240 ft (3020 m) 4.6 miles south, or large population (in 2011) in Mono Pumice Flats, Smokey Bear Flat, 2310 m (7580 ft) 13 miles north	Soil at project is granitic, and there are no openings in the scrub canopy, but some likelihood exists due to proximity and elevation similarity.
<i>Lupinus padre-crowleyi</i>		Rare	1B.2	2500-4000	granitic soils in Great Basin scrub and upper montane coniferous forest, Inyo and Tulare Counties	A small population occurs on Wheeler Ridge in xeric alpine scrub, 3290 m (10850 ft) 10 miles southwest.	Very unlikely due to large elevation difference between project site and E. Sierran populations

Species	Federal	State	CNPS	elevation range (m)	habitat range	nearest occurrence	likelihood of occurrence at project
Not Federal or State Listed							
<i>Arabis fernaldiana</i> var. <i>stylosa</i>			3.3	2300-3080	rocky Great Basin scrub, Mono County (3 occurrences) and Nevada	low, open alpine scrub on ridgeline in Glass Mountains, 3060 m (10100 ft) 13 miles north	very unlikely due to large elevation difference between project site and local populations
<i>Astragalus lemmonii</i>			1B.2	1280-2200	meadow/scrub margins, mesic at least seasonally, western Great Basin	meadow narrowly adherent to Hilton Creek (in 1933), if extant than likely 2030 m (6700 ft), 0.5-1 mile east	very unlikely due to lack of suitable habitat
<i>Astragalus ravenii</i>			1B.3	3350-3460	alpine boulder field and upper montane coniferous forest, Fresno, Inyo and Mono Counties	rocky sagebrush scrub on Wheeler Ridge, 3300 m (10900 ft) 10 miles southeast	very unlikely due to lack of suitable habitat and large elevation difference between project site and all known populations
<i>Atriplex pusilla</i>			2	1300-2100	alkaline soil near hot springs, western Great Basin	likely in alkaline scrub near Hot Creek (in 1938), 2100 m (6900 ft) 8 miles northwest	very unlikely due to lack of suitable habitat
<i>Boecheera dispar</i> ²			2.3	1200-2400	Mojavean desert scrub, pinyon-juniper woodland, Inyo and Mono Counties, Nevada	rocky scrub and pinyon-juniper woodland at Sherwin Summit (in 1941), 2120 m (7000 ft) 7 miles east	Great Basin scrub type occurs at project site, but some likelihood due to proximity and similar elevation

Species	Federal	State	CNPS	elevation range (m)	habitat range	nearest occurrence	likelihood of occurrence at project
Not Federal or State Listed (cont.)							
<i>Botrychium ascendens</i>			2.3	1500-1830	bogs and seeps, moist conifer forest, Mono County, western Sierra Nevada, western U.S.	forested seep near Convict Creek, 2450 m (8100 ft) 6 miles west	very unlikely due to lack of suitable habitat
<i>Botrychium crenulatum</i>			2.2	1500-3300	bogs and seeps, moist coniferous forest, scattered in California	forested seep near Convict Creek, 2450 m (8100 ft) 6 miles west	very unlikely due to lack of suitable habitat
<i>Calochortus excavatus</i>			1B.1	1150-2000	alkaline meadows, mesic chenopod scrub	meadow along Hilton Creek (in 1958), if extant then likely 2210 m (7300 ft), 1 mile or less to the southeast	very unlikely due to lack of suitable habitat
<i>Calyptridium pygmaeum</i>			1B.2	2100-3500	sandy soil in upper montane coniferous forest, Sierra Nevada south of Mono County	dry forested slopes and flats around Heart Lake (in 1937), 3200 m (10500 ft) 11 miles south	very unlikely due to lack of suitable habitat
<i>Camissonia boothii</i> ssp. <i>boothii</i>			2.3	900-2400	pinyon-juniper or Joshua tree woodland, Inyo and Mono Counties, Nevada, Arizona, Washington	sagebrush scrub in Long Valley near Benton Crossing Road at Owens River, 2050 m (6780 ft) 8 miles north	some likelihood due to similar habitat and elevation at nearest known population
<i>Camissonia boothii</i> ssp. <i>intermedia</i>			2.3	1500-2150	pinyon-juniper woodland or Great Basin scrub, Inyo and Mono Counties, Nevada	recent fire scar in sagebrush scrub at Watterson Meadow, 2100 m (6900 ft) 16 miles northeast	some likelihood due to habitat similarity and recent fire history at project site

Species	Federal	State	CNPS	elevation range (m)	habitat range	nearest occurrence	likelihood of occurrence at project
Not Federal or State Listed (cont.)							
<i>Camissonia sierra</i> <i>ssp. alticola</i>			1B.2	1350-2400	openings in coniferous forest, Fresno and Madera Counties	pine forest near Lake Thomas A. Edison (in 1953), 2340 m (7700 ft) 15 miles southwest	very unlikely due to ecological distance (Sierran west slope) and lack of suitable habitat
<i>Carex scirpoidea</i> ssp. <i>pseudoscirpoidea</i>			2.2	3200-3700	alpine meadows and seeps, mesic forest, Inyo, Mono Counties and western U.S.	likely in meadow along Whiskey Creek near Crowley Lake (in 1938), 2120 m (7000 ft) 2.9 miles east	very unlikely due to lack of suitable habitat
<i>Claytonia megarhiza</i>			2.3	2600-3300	alpine boulder fields and subalpine forest, central Sierra Nevada and Oregon	rock crevices near Cecil Lake (in 1952), ca. 3000 m (10000 ft) 8 miles southwest	very unlikely due to lack of suitable habitat
<i>Crepis runcinata</i> <i>ssp. hallii</i>			2.1	1250-1450	meadow/scrub margins, alkaline, seasonally mesic, Inyo, Mono and Lassen Counties, Nevada	alkaline, mesic lake shore at Little Alkali Lake, 2100 m (6900 ft) 7 miles north	very unlikely due to lack of suitable habitat
<i>Draba cana</i>			2.3	3000-3500	alpine boulder fields and meadows, Mono County (2 occurrences) and western U.S.	riparian meadow near Mildred Lake, 2870 m (9800 ft) 6.0 miles southwest	very unlikely due to lack of suitable habitat
<i>Draba incrassata</i>			1B.3	2500-3650	alpine volcanic talus, Mono County	alpine rocks near summit of Red Slate Mountain, 3950 m (13000 ft) 8 miles southwest	very unlikely due to lack of suitable habitat

Species	Federal	State	CNPS	elevation range (m)	habitat range	nearest occurrence	likelihood of occurrence at project
Not Federal or State Listed (cont.)							
<i>Draba lonchocarpa</i> var. <i>lonchocarpa</i>			2.3	3000-3300	alpine boulder fields, Inyo and Mono Counties, western U.S.	moist limestone scree near Mildred Lake (in 1963), 3280 m (10800 ft) 6 miles southwest	very unlikely due to lack of suitable habitat and large elevation difference between project site and all known populations
<i>Draba praealta</i>			2.3	2500-3400	subalpine and alpine meadows and seeps, central Sierra Nevada and western U.S.	limestone talus at Mildred Lake (in 1978), 2970 m (9800 ft) 6 miles southwest	very unlikely due to lack of suitable habitat
<i>Draba sierrae</i>			1B.3	3500-4250	alpine boulder fields, Inyo, Mono and Fresno Counties.	granitic talus on western slope of Mt. Morgan (in 1938), 3500 m (11500 ft) 4.4 miles south	very unlikely due to lack of suitable habitat and large elevation difference between project site and all known populations
<i>Elymus scribneri</i>			2.3	2900-4200	alpine boulder fields, Mono County and Western U.S.	near Convict Creek on slopes of Red Slate Mountain, 3900 m (12800 ft) 7 miles southwest	very unlikely due to lack of suitable habitat and large elevation difference between project site and all known populations

Species	Federal	State	CNPS	elevation range (m)	habitat range	nearest occurrence	likelihood of occurrence at project
Not Federal or State Listed (cont.)							
<i>Epilobium howelii</i>			4.3	2000-2700	subalpine coniferous forest, meadows and seeps, Fresno, Mono and Sierra Counties	lakeshore or riparian habitat along Hilton Creek near Davis Lake, 3060 m (10100 ft) 5.4 miles south	very unlikely due to lack of suitable habitat
<i>Helodium blandowii</i>			2.3	2000-2700	subalpine coniferous forest, meadows and seeps, Mono and Fresno Counties, western U.S.	marshy area at Hilton Creek near Davis Lake, 2870 m (9450 ft) 4.5 miles south	very unlikely due to lack of suitable habitat
<i>Hulsea vestita</i> ssp. <i>inyoensis</i>			2.2	1650-3000	scree or gravelly soil in chenopod or Mojavean scrub, pinyon-juniper woodland, Inyo and Mono Counties, Nevada	volcanic tuff scree, blackbush scrub in Lower Rock Creek gorge, 1910 m (6300 ft) 9 miles east	very unlikely due to lack of suitable habitat
<i>Ivesia kingii</i> var. <i>kingii</i>			2.2	1200-2130	alkaline and mesic Great Basin scrub and meadow margins, Inyo and Mono Counties, Nevada and Utah	alkaline meadow near Convict Creek confluence with Crowley Lake, 2060 m (6800 ft) 2.8 miles northwest	very unlikely due to lack of suitable habitat
<i>Ivesia unguiculata</i>			4.2	1500-2900	mesic upper montane coniferous forest, meadows and seeps, Fresno, Madera and Mariposa Counties	subalpine meadow at Cold Creek near Goodale Pass, 2910 m (9600 ft) 13 miles southwest	very unlikely due to ecological distance (Sierran west slope) and lack of suitable habitat

Species	Federal	State	CNPS	elevation range (m)	habitat range	nearest occurrence	likelihood of occurrence at project
Not Federal or State Listed (cont.)							
<i>Kobresia myosuroides</i>			2.3	2950-3230	mesic alpine boulder fields, meadows and forests, seeps, Mono County, western U.S.	sandy riparian meadow near Bright Dot Lake, 3200 m (10500 ft) 6 miles east	very unlikely due to lack of suitable habitat
<i>Lupinus duranii</i>			1B.2	2000-3000	gravelly pumice in flats, Great Basin scrub and upper montane coniferous forest, Mono County	Mono Pumice Flats, gravelly pumice at Smokey Bear Flat, 2310 m (7580 ft) 13 miles east	Soil at project is granitic, but some likelihood due to vegetation and elevation similarity
<i>Lupinus gracilentus</i>			1B.3	2500-3500	subalpine coniferous forest, Inyo, Mariposa and Tuolumne Counties	likely along shores of Heart Lake (in 1933), 3200 m (10500 ft) 11 miles south	very unlikely due to lack of suitable habitat
<i>Micromonolepis pusilla</i> ³			2.3	2500-4000	openings in chenopod scrub, alkaline soil, Sierra Nevada from Mono County north, western U.S.	likely in alkaline scrub near Benton Crossing Road at Owens River, 2060 m (6800 ft) 8 miles north	very unlikely due to lack of suitable habitat
<i>Minuartia stricta</i>			2.3	3500-3900	gravelly or sandy meadows, Shasta, Tehama and Trinity Counties	likely mesic meadow on slopes of Red Slate Mtn., 3850 m (12700 ft) 7 miles southwest	very unlikely due to lack of suitable habitat and large elevation difference between project site and all known populations

Species	Federal	State	CNPS	elevation range (m)	habitat range	nearest occurrence	likelihood of occurrence at project
Not Federal or State Listed (cont.)							
<i>Parnassia parviflora</i> ⁴			2.2	2200-3000	rocky seeps, wet banks, western Great Basin, Canada	moist meadow along banks of Hilton Creek (in 1938), if extant then 2210 m (7300 ft) and less than 1 mile north or east	very unlikely due to lack of suitable habitat
<i>Pedicularis crenulata</i>			2.2	2100-2300	moist streamside meadow, Mono County (1 occurrence)	moist streamside meadow at Convict Creek, 2150 m (7100 ft) 4.8 miles west	very unlikely due to lack of suitable habitat
<i>Phacelia gymnoclada</i>			2.3	1220-2500	alkaline Great Basin or chenopod scrub, Mono and Lassen Counties, Nevada and Oregon	seasonally moist alkaline flat, Owens River Rd in Long Valley (in 1979), 2120 m (7000 ft) 12 miles north	very unlikely due to lack of suitable habitat
<i>Phacelia inyoensis</i>			1B.2	900-3200	drying margins of seeps and meadows, alkaline soil, Mono and Inyo Counties	moist alkaline flat near shore of Crowley Lake east of Whitmore Hot Springs (in 1952), 2120 m (7000 ft) 3.1 miles north	very unlikely due to lack of suitable habitat
<i>Salix brachycarpa</i> ssp. <i>brachycarpa</i>			2.3	3200-3500	alpine scrub, subalpine mesic coniferous forest and meadows, seeps, Mono County and Western U.S.	moist meadow along shore of Bright Dot Lake, 3200 m (10500 ft) 6 miles east	very unlikely due to lack of suitable habitat and large elevation difference between project site and all known populations

Species	Federal	State	CNPS	elevation range (m)	habitat range	nearest occurrence	likelihood of occurrence at project
Not Federal or State Listed (cont.)							
<i>Salix nivalis</i>			2.3	3100-3500	alpine scrub, seeps, Mono County and Western U.S.	moist limestone with seeps near Genevieve Lake, 2750 m (9050 ft) 7 miles west	very unlikely due to lack of suitable habitat and large elevation difference between project site and local populations
<i>Sphaeromeria potentilloides</i> var. <i>nitrophila</i>			2.3	2100-2400	margins of alkaline meadows, mud flats, Mono County, Nevada and Idaho	alkaline flat at Little Alkali Lakes, 2100 m (6900 ft) 7 miles north	very unlikely due to lack of suitable habitat
<i>Stuckenia filiformis</i> ⁵			2.2	300-2150	shallow freshwater, lake margins, central Sierra Nevada, Coast Range, western U.S.	shallow water in Hot Creek near confluence with Owens River (in 1969), 2060 m (6800 ft) 8 miles northwest	very unlikely due to lack of suitable habitat
<i>Thelypodium integrifolium</i> ssp. <i>complanatum</i>			2.2	1100-2500	mesic, usually alkaline meadows, Great Basin scrub, Mono, Inyo and Lassen Counties, Utah, Oregon and Nevada	likely volcanic tuff and sand in Great Basin scrub at Sherwin Summit (in 1936), if extant then at about 2120 m (7000 ft) 7 miles east	Soil at project is granitic, but some likelihood due to proximity and vegetation similarity
<i>Trichophorum pumilum</i> ⁶			2.2	2870-3250	mesic lakeshores, alpine scrub, Mono County, Western U.S., Canada, Asia	moist meadow at Bright Dot Lake, 3200 m (10500 ft) 6 miles east	very unlikely due to lack of suitable habitat and large elevation difference between project site and local populations

Species	Federal	State	CNPS	elevation range (m)	habitat range	nearest occurrence	likelihood of occurrence at project
Not Federal or State Listed (cont.)							
<i>Triglochin palustris</i>			2.3	2300-3700	marshes, seeps, lake shores, meadows, Inyo, Mono and Tulare Counties, western U.S.	drying pools in Rock Creek Lakes Basin (in 1940), 3650 m (12000 ft) 11 miles east	very unlikely due to lack of suitable habitat
Wildlife							
Federal Listed and State Listed							
Fish							
<i>Siphateles bicolor snyderi</i>	Endang	Endang		1120-2150	Owens River drainage, Mono and Inyo Counties	Owens River below Lake Crowley, 1950 m (6450 ft) 3.0 miles east	very unlikely due to lack of suitable habitat
Amphibians							
<i>Anaxyrus canorus</i>	Candidate	SC		2730-3200 (6 in Mono County)	subalpine to alpine marshes, lakes, streams, montane wet meadows, central Sierra Nevada	The most recent and nearest occurrence in Mono County (2003) is at Grass Lake, 3000 m (9830 ft), 5.7 miles south	very unlikely due to lack of suitable habitat and large elevation difference between project site and local populations
<i>Rana sierrae</i>	Candidate	SC		2300-2700 (2 in Mono County)	very near surface water, central and northern Sierra Nevada	small tributary to upper Rock Creek, 2320 m (7660 ft) 5.4 miles southeast	very unlikely due to lack of suitable habitat

Species	Federal	State	CNPS	elevation range (m)	habitat range	nearest occurrence	likelihood of occurrence at project
Federal and State Listed (cont.)							
Birds							
Centrocercus urophasianus	Candidate	SC		2100-3000 (1 in Mono County)	foraging, leks, nesting in sagebrush scrub, local Management Unit inhabits Long Valley north to Mono Craters	An active lek area occurs in sagebrush scrub west of Lake Crowley, 2150 m (7100 ft) 3.4 miles northeast	Likely isolated from known population by US Hwy 395 corridor, but some likelihood due to proximity and similar elevation and vegetation type
Riparia riparia (nesting)		Thr		1900-2100 (2 in Mono County)	nesting (burrows) in vertical cliffs near lakes, streams, or ocean, northern and central California, worldwide	near shore of Lake Crowley (1950), 2040 m (7060 ft) 2.6 miles east	very unlikely due to lack of suitable habitat
Strix nebulosa (nesting)		Endang		2400-2650 (2 in Mono County)	expansive mature and dense forest with snags and adjacent meadow area, Sierra Nevada north to Arctic Circle, Eurasia	Valentine Camp near Mammoth Lakes (1975), 2430 m (8000 ft) 14 miles west	very unlikely due to lack of suitable habitat
Mammals							
Gulo gulo	Candidate	Thr			many habitats, high elevation Sierra Nevada and northern Coast Ranges	near shore of Lake Crowley (1950), 2040 m (7060 ft) 2.6 miles east	some likelihood due to proximity and similar habitat and elevation

Species	Federal	State	CNPS	elevation range (m)	habitat range	nearest occurrence	likelihood of occurrence at project
Federal and State Listed (cont.)							
<i>Martes pinnanti</i> (Pacifica) DPS	Candidate	SC		1500-2400	expansive mature and dense forest with snags or downed logs and adjacent riparian area central Sierra Nevada and west coast of North America	lodgepole pine forest at Convict Creek (about 1977), 2760 m (9100 ft) 6 miles west	very unlikely due to lack of suitable habitat
<i>Ovis canadensis sierrae</i>	Endang	Endang		2050-3150	open and steep alpine slopes, central Sierra Nevada (reintroduced to Modoc Plateau)	Wheeler Ridge reintroduced 1979, 2050 m (9200 ft) 10 miles southeast	very unlikely due to large distance and elevation difference between project site and local populations
<i>Vulpes vulpes necator</i>		Thr		2050-3170 (9 in Mono County)	forest and forest gaps, high elevation central Sierra Nevada	upper slopes of McGee Mtn., 3120 m (10300 ft) 3.0 miles west	very unlikely due to lack of suitable habitat
Not Federal or State Listed							
Fish							
<i>Catostomus fumeiventris</i>		SC		1250-2140	Owens River drainage in Mono and Inyo Counties	large population in Lake Crowley, 2050 m (6770 ft) 1.0 miles north	very unlikely due to lack of suitable habitat
<i>Rhinichthys osculus</i> ssp. 2		SC		950-2170	small streams, springs, Owens River drainage, Mono, Inyo Counties	Whitmore Hot Springs outflow, 2080 m (6850 ft) 4.5 miles northwest	very unlikely due to lack of suitable habitat

Species	Federal	State	CNPS	elevation range (m)	habitat range	nearest occurrence	likelihood of occurrence at project
Not Federal or State Listed (cont.)							
Amphibians							
<i>Hydromantes platycephalus</i>		SC		1200-3500	rocky soil or talus in moist to wet habitat very near surface water, central Sierra Nevada	tributary to Pine Creek near Rovana, 2370 m (7800 ft) 12 miles southeast	very unlikely due to lack of suitable habitat
Birds							
<i>Accipiter gentilis</i> (nesting)		SC		2300-3200 (8 in Mono County)	nesting in relatively closed coniferous forest, Sierra Nevada, circumpolar	eyrie in upper montane coniferous forest near East Fork Campground at Rock Creek, 2600 m (8600 ft) 7 miles south	very unlikely due to lack of suitable habitat
Mammals							
<i>Lepus townsendii townsendii</i>		SC		1950-3280 (13 in Mono County)	sagebrush scrub, open coniferous forest, Sierra Nevada, western U.S.	sagebrush scrub near Hot Creek (in 1955), 2180 m (7200 ft) 8 miles west	documented local occurrences are old (1950's) and distant, but some likelihood due to similar habitat and elevation
<i>Sorex lyellii</i>		SC		2000-3260	moist, grassy meadows with riparian willows, central Sierra Nevada	Old Mammoth (1914), 2400 m (8000 ft) 13 miles west	very unlikely due to lack of suitable habitat

Footnotes:

1. syn. *Astragalus monoensis* var. *monoensis*
2. syn. *Arabis dispar*

- 3. syn. *Monolepis pusilla*
- 4. syn. *Parnassia palustris*
- 5. syn. *Potamogeton filiformis*
- 6. syn. *Scirpus pumilus*

Rank or status, by agency:

CNPS = California Native Plant Society listings (CNPS, 2001, 2011)

1B = rare and endangered in California and elsewhere

2 = rare, threatened or endangered in California, but more common elsewhere

4 = watchlist species of limited distribution

Threat Code extensions:

.1 is Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2 is Fairly endangered in California (20-80% of occurrences threatened)

.3 is Not very endangered in California (< 20% of occ's threatened or no current threats known).

State = California Department of Fish and Game listings under the California Endangered Species Act (CDFG, 2011b).

SC = Species of Concern

Thr = Threatened

Endang = Endangered

Federal = USFWS under the Endangered Species Act (CDFG, 2011b).

Candidate = designated Candidate for Listing

Endang = Endangered



GENERAL BIOLOGICAL EVALUATION

**VISTA TOWERS SITE
CROWLEY LAKE
OFF HILTON PACK STATION ROAD
MAMMOTH LAKES, MONO COUNTY, CALIFORNIA 93546**

PREPARED FOR:
VISTA TOWERS
10161 BROADVIEW PLACE
NORTH TUSTIN, CALIFORNIA 92705

DATED: SEPTEMBER 6, 2011

PREPARED BY:
ACE ENVIRONMENTAL, LLC
9976 PEAK LOOKOUT STREET
LAS VEGAS, NEVADA 89178
WWW.ACEENVIRONMENTALLC.COM
ACE PROJECT NO. 11-303-125-027

Summary

The results of the general biological evaluation indicate the following three recommendations:

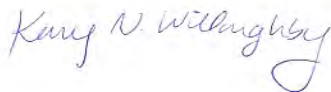
RM1- If construction activity must occur during the peak of the nesting season (February-August), it is recommended that a biologist first conduct a survey of the impact areas to verify that no active nests, particularly sage grouse, occur within the project footprint or within a 500' radius around the impact areas at least 3 days prior to grading, but no more than 10 days prior.

RM2- Regardless of the nesting season, it is recommended that a biological monitor be onsite, at a minimum, the first day of construction to give environmental training to construction personnel prior to initiating work. This training should include, at a minimum, information on sage grouse, other nesting birds, and sensitive wildlife in the region.

RM 3- All vehicles, including equipment, must be power-washed prior to entering the project area to avoid introducing non-native plant seeds to the construction site or surrounding habitat.

It is ACE's goal to provide value-added services to our Clients, thus becoming an integral member of their team. If ACE can provide any further assistance regarding this project, please do not hesitate to contact the undersigned at (702) 614-4431.

Sincerely,
ACE Environmental, LLC



Kerry N. Willoughby, CEM, REA
Principal
CEM #1701, Exp: 10/07/11
REA #07413, Exp: 6/30/12

Attachment A: General Biological Evaluation

ATTACHMENT A
GENERAL BIOLOGICAL EVALUATION



September 5, 2011

Kerry Willoughby
Ace Environmental, LLC
9976 Peak Lookout Street
Las Vegas, NV 89178

Subject: General Biological Evaluation for the “Crowley Lake” Vista Towers Telecommunication Facility Site, near Mammoth Lakes, California

Dear Ms. Willoughby,

As requested, a general biological resources evaluation was conducted by Kidd Biological, Inc. on a proposed cell tower location in an unincorporated area of Mono County in Eastern California between the towns of Bishop and Mammoth. The purpose of this report is intended to determine if the installation of a cellular communications tower on the proposed site will result in significant impacts to biologically sensitive resources.

PROJECT DESCRIPTION

The proposed project consists of installing a new telecommunications facility. As part of the project, two 12' x 20' pre-fabricated equipment shelters and an 80' tall “Mono-pine” tower will be installed within a 40' x 60' lease area. Antennas and other communications equipment will be installed on the tower. A 12 foot wide access road will be created to access the site. The new road will be approximately 1,500 feet long.

PROJECT LOCATION

The site is located in an unincorporated portion of Mono County, California 30 miles west of the Nevada border. Generally the site is located west of Interstate 395, 25 miles north of Bishop and 25 miles south of Mono Lake at the base of the Sierra Nevada Mountains near the Inyo National Forest. More specifically the site is west of Crowley Lake Road, North of Hilton Pack Station Road, one mile west of Crowley Lake. Crowley Lake Campground is to the north (Figures 1 & 2). The site lies approximately ½ north of Hilton Creek. The project location can also be described as being located in section 27 of Township 4 South, Range 29 East of the Convict Lake, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map.

METHODS

This assessment focused on reviewing documented sensitive biological resources onsite and to use the information found in the literature review to determine the potential for these species to occur onsite. Biologist, Nina Jimerson-Kidd conducted the literature review and used the California Department of Fish and Game's (CDFG) Natural Diversity Database (CNDDDB 2010). A report was prepared for sensitive species recorded within the Convict Lake USGS quadrangles. This

information was used to help determine if any sensitive resources were previously reported on, or adjacent, to the subject property. Information from other resource agencies such as the U.S. Fish and Wildlife service and telecommunication site plans, aerial photography and photographs provided by Ace Environmental, LLC were also reviewed.

Figure 1. Vicinity Map

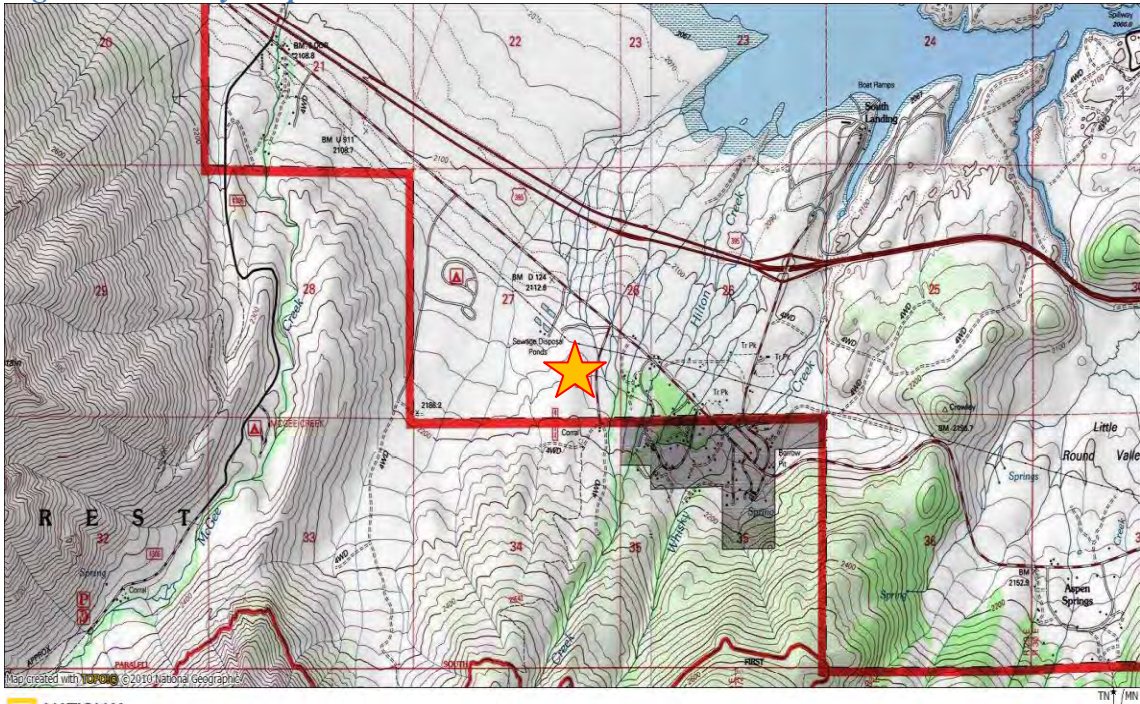
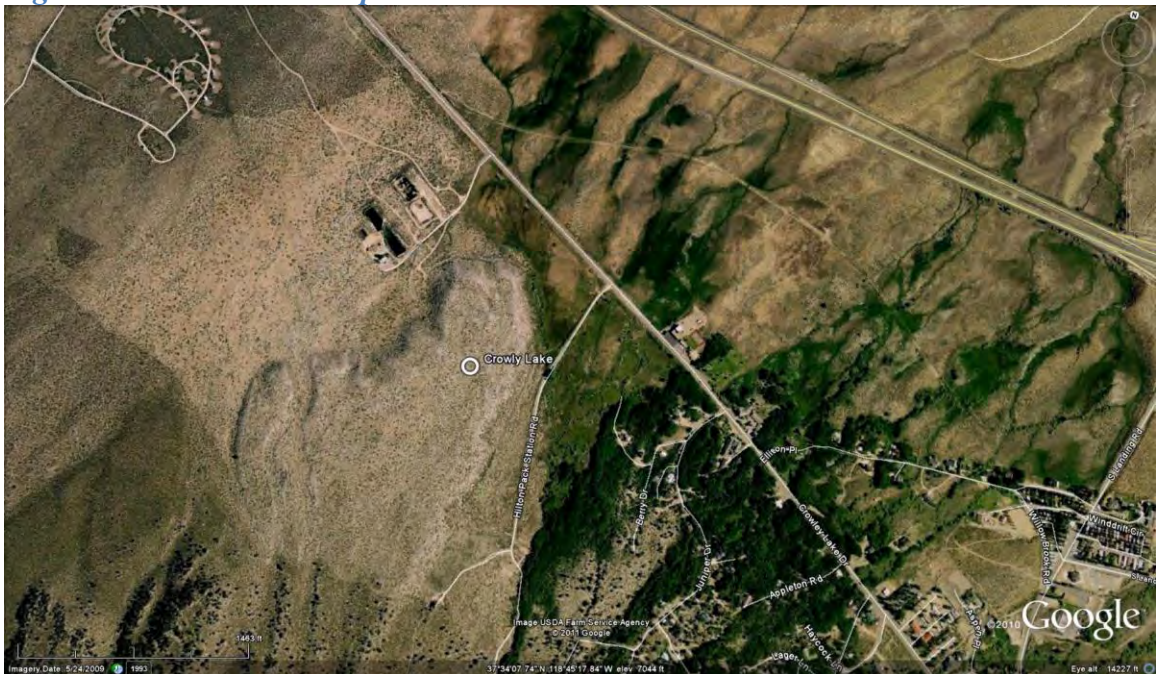


Figure 2. Site Location Map



RESULTS

The CNDDDB and other literature identified 27 sensitive species as having been previously reported within the vicinity of the project site. A discussion of the potential for these sensitive species to occur onsite is included below in Table 1.

The site is located on top of a ridgeline/platuea that runs northeast from the south west with the surrounding habitat being comprised of big sagebrush scrub (Element Code 35210*). Common plant species adjacent to the site and access road include big sage (*Artemisia tridentata*), silver sage (*Artemisia cana*), rabbit brush (*Chrysothamnus nauseosus*) and bitterbrush (*Purshia tridentate*) and possibly black brush (*Coleogyne ramosissima*) with a mix of native (*Stipa* sp., *Festuca* sp) and non-native grasses (*Bromus*) and annual herbs as an understory. There are no apparent roads accessing the site, however there is a 20' wide gravel road approximately 500 feet to the east known as Hilton Pack Station Road. The site sits at an elevation of approximately 2,150 feet (Approx. 655 meters) above sea level.

Surrounding land uses include open-space in all directions with the exception of a few houses to the south.

SENSITIVE RESOURCES

Sensitive biological resources are habitats or individual species that have special recognition by federal, state, or local conservation agencies and organizations as endangered, threatened, or rare. The CDFG, U.S. Fish and Wildlife Service (USFWS), and groups like the California Native Plant Society (CNPS) maintain special watch lists of such resources. After reviewing aerial photos, maps and site photos, it was determined from several criteria, which sensitive resources have a low, moderate or high potential to occur on site. Criteria used to determine potentials of occupancy include, but are not limited to, soil types and conditions, habitat types and quality, disturbance, site history, adjacent land uses and proximity to nearest known extant populations of each respective species.

TABLE 1 – Sensitive Species Occurring in the Area

Species		Status			Potential for Impact from Project Implementation†
Scientific Name	Common Name	USFWS	CDFG	CNPS	
PLANTS					
<i>Astragalus johannis-howellii</i>	Long Valley milk-vetch	None	Rare	1B.2	Low Potential on site. Low potential adjacent to site.
<i>Atriplex pusilla</i>	smooth saltbush	None	None	2	Low Potential on site. Low potential adjacent to site.
<i>Botrychium ascendens</i>	upswept moonwort	None	None	2.3	Low Potential on site. Low potential adjacent to site.

* Taken from R.F. Holland's *Preliminary Descriptions of the Terrestrial Natural Communities of California*. 1986

† "Adjacent" indicates within 1,000 feet of the project site including access road.

<i>Botrychium crenulatum</i>	scalloped moonwort	None	None	2.2	Low potential on site. Low potential Adjacent.
<i>Calochortus excavatus</i>	Inyo County star-tulip	None	None	1B	Low Potential on site. Low potential adjacent to site.
<i>Carex scirpoidea</i> ssp. <i>pseudoscirpoidea</i>	western single-spiked sedge	None	None	2.2	Low potential on site. Low potential Adjacent.
<i>Claytonia megarhiza</i>	fell-fields claytonia	None	None	2.3	Low Potential on site. Low potential adjacent to site.
<i>Draba cana</i>	canescent draba	None	None	2.3	Low Potential on site. Low potential adjacent to site.
<i>Draba incrassata</i>	Sweetwater Mountains draba	None	None	1B.3	Low Potential on site. Low potential adjacent to site.
<i>Draba lonchocarpa</i> var. <i>lonchocarpa</i>	spear-fruited draba	None	None	2.3	Low Potential on site. Low potential adjacent to site.
<i>Draba praealta</i>	tall draba	None	None	2.3	Low Potential on site. Low potential adjacent to site.
<i>Elymus scribneri</i>	Scribner's wheat grass	None	None	2.3	Low Potential on site. Low potential adjacent to site.
<i>Helodium blandowii</i>	Blandow's bog moss	None	None	2.3	Low Potential on site. Low potential adjacent to site.
<i>Kobresia myosuroides</i>	seep kobresia	None	None	2.3	Low Potential on site. Low potential adjacent to site.
<i>Minuartia stricta</i>	bog sandwort	None	None	2.3	Low Potential on site. Low potential adjacent to site.
<i>Parnassia parviflora</i>	small-flowered grass-of-Parnassus	None	None	2.2	Low Potential on site. Low potential adjacent to site.
<i>Pedicularis crenulata</i>	scalloped-leaved lousewort	None	None	2.2	Low Potential on site. Low potential adjacent to site.
<i>Phacelia inyoensis</i>	Inyo phacelia	None	None	1B.2	Low Potential on site. Low potential adjacent to site.
<i>Salix brachycarpa</i> ssp. <i>brachycarpa</i>	short-fruited willow	None	None	2.3	Low Potential on site. Low potential adjacent to site.

<i>Salix nivalis</i>	snow willow	None	None	2.3	Low Potential on site. Low potential adjacent to site.
<i>Trichophorum pumilum</i>	little bulrush	None	None	2.2	Low Potential on site. Low potential adjacent to site.
WILDLIFE					
<i>Anaxyrus canorus</i>	Yosemite toad	Candidate	SC		Low Potential on site. Low potential adjacent to site.
<i>Catostomus fumeiventris</i>	Owens sucker	None	SC		No potential on site. Occurs in Crowley Lake.
<i>Centrocercus urophasianus</i>	greater sage-grouse	Candidate	SC		Moderate potential onsite Moderate-High potential adjacent.
<i>Empidonax traillii</i>	willow flycatcher	None	Endangered		No nesting potential onsite or immediately adjacent. Nesting habitat 1,500 feet to the east in Hilton Creek.
<i>Gila bicolor snyderi</i>	Owens tui chub	Endangered	Endangered	-	No potential on site. Occurs in Crowley Lake.
<i>Martes pennanti (pacific) DPS</i>	Pacific fisher	Candidate	SC	-	Very low potential onsite. Possible foraging habitat adjacent.
U.S. Fish and Wildlife Service				California Department of Fish and Game	
Federal Endangered				SC State Species of Special Concern	
Federal Threatened					
Candidate- Candidate species are species the FWS has sufficient information on their status to propose them as endangered or threatened, but formal listing is precluded by other higher priority listing activities. Protection, although not mandated is expected on a local level.					
CNPS Ranking					
1A- Presumed Extinct in California					
1B- Plants Rare, threatened or endangered in California and elsewhere					
2- Plants Rare, threatened or endangered in California, but more common elsewhere					
3- Plants about which more information is needed (A review list)					
4- Plants of limited distribution (A watch list)					

RESULTS/ IMPACT ANALYSIS

Of the list of 27 sensitive species having been reported in the vicinity of the site, only one was determined to have a moderate or higher potential to occur within the project site. Additionally, one more was determined to have a potential to occur within the vicinity of the site or access road.

Direct Impacts

The species that has a potential to be directly impacted within the construction site is the Greater Sage Grouse. This species is not federally listed or listed as rare or endangered by the State of California; however it is a species on the Federal Candidate list for federal protection under the endangered species act (ESA). There is a very small population of Greater Sage Grouse in California. This species uses only sage brush scrub habitats. They are threatened by habitat fragmentation and loss as well as degradation of habitat due to non-native invasive and wildfire suppression. Open areas within sagebrush communities are needed for courtship displays. Fairly open stands of sagebrush are needed for nesting. They nest on the ground, usually under a sage bush. Breeding occurs from mid-February to late August. With the peak courtship displays occurring between March-April. Nesting and brooding period is May-July. The incubation period is 25 days. Young sage grouse first fly at 7-14 days. Adults feed primarily on sagebrush and leafage of green grass, and forbs and supplement their diet with insects, particularly grasshoppers.

It is unlikely that a project of this size will impact the sage grouse significantly if certain prudent precautionary measures are taken. These will be outlined below.

The willow flycatcher, which may occur in Hilton Creek just east of the site, will not likely be impacted directly or indirectly by the construction of this site.

Indirect Impacts

Temporary indirect impacts include impacts that are incurred during construction such as noise, dust, night-lighting and pollutants. After construction is complete, on-going indirect impacts include night-lighting from permanent fixtures, radio microwaves from the tower and on-going maintenance noise and vehicle traffic. Plants generally are not significantly impacted by indirect impacts. Wildlife may be negatively impacted in their behavior by noise and artificial lighting. Most notably, nesting birds may abandon nests to escape from noise or lighting. The adjacent habitat as well as onsite utility poles may support nesting birds that are protected by Fish and Game codes and the Migratory bird treaty act.

No drainage features were observed within the project site, nor are any indicated on the USGS topographic map. No further studies or mitigation are necessary for Waters of the U.S. or Section 1600 of the DFG Code.

A small area of Big Sage Scrub habitat will be removed permanently from this project. This habitat is not considered sensitive. There are no known conservation areas in the immediate area of the site that will be impacted by the project. This site does not fall within critical habitat for any federally listed species.

RECOMMENDATIONS

Because the site is adjacent to large tracts of open space and there is a potential for sensitive species to occur within the vicinity of the site the follow recommended measures are presented to ensure the project proponent complies with state and federal laws:


RM1- If construction activity must occur during the peak of the nesting season (February-August), it is recommended that a biologist first conduct a survey of all the impact areas to verify that no active nests, particularly sage grouse, occur within the project footprint or within a 500' radius around the impact areas at least 3 days prior to grading, but no more than 10 days prior.

RM2-Regardless of the nesting season, it is recommended that a biological monitor be onsite, at a minimum, the first day of construction to give an environmental training to all construction personnel prior to initiating work. This training should include, at minimum, information on sage grouse, other nesting birds and sensitive wildlife in the region.

RM 3- All vehicles, including equipment, must be power-washed prior to entering the project area to avoid introducing any non-native plant seeds to the construction site or surrounding habitat.

Should you have any questions regarding this report, please do not hesitate to contact me at (951) 776-0304.

Sincerely,

A handwritten signature in black ink, appearing to read "Nina Jimerson-Kidd". The signature is fluid and cursive, with a large loop at the end of the last name.

Nina Jimerson-Kidd
Wildlife biologist

ATTACHMENT 1: BIOLOGIST'S QUALIFICATIONS

Nina Jimerson-Kidd

Wildlife Biologist

18562 Frantz Road

Perris, Ca 92570

Home Office: 951.776.0304

Fax: 951.776.4389

Email: n.jimerson-kidd@earthlink.net

Mrs. Jimerson-Kidd has over 9 years' experience in conducting herpetological, entomological, avian and botanical surveys. Her experience includes inventorying both plants and wildlife of southern and central and northwest California. She has experience in raptor trapping, handling, survey techniques, and nest monitoring, as well as some experience with mammal trapping. She also has extensive experience with small mammal identification. Mrs. Jimerson-Kidd has conducted numerous focused surveys or habitat assessments for California gnatcatcher, desert tortoise, least bell's vireo, flat-tailed horned lizard, burrowing owls, western spadefoot toad, Delhi-sands flower-loving fly, Arroyo toad, and Quino checkerspot butterfly. Additionally, her experience includes habitat assessments and focused for sensitive plants species, particularly desert species.

EDUCATION

BS, Natural Resources Planning &
interpretation/ Ecology, Humboldt
State University- 1998

PERMITS

- Federal Bird Marking and Salvage sub-permit:
22951-C Exp. 6/30/12
- Flat-tailed Horned Lizard handling MOU
(BLM)
- Scientific Collection Permit: 801128-03
Exp. 12/10/2010 (renewal in process)
- Federal 10A(1)a permit #036550-3
Exp. 11/15/2011
Coastal California Gnatcatcher
Quino Checkerspot Butterfly

PROFESSIONAL AFFILIATIONS

- Wildlife Society
- Association of Field
Ornithologists
- Raptor Research Foundation
- Society for the Study of
Amphibians and Reptiles
- California Native Plant Society

CONTINUED EDUCATION

Desert Tortoise Council Workshop 10/01
Tortoise Egg Handling and Burrow Construction
Certificate 10/01
South Western Willow Flycatcher Workshop 5/01
So. Coast Missing Linkages Project
Symposium 8/02
Bats of the Southwestern Desert 5/02
Burrowing Owl Symposium 10/03

Job History

Kidd Biological, Inc. 2000- Present. Principle Biologist. Conduct Biological; assessments, focused surveys for sensitive species, project management, mitigation monitoring, restoration monitoring. Ongoing research of bird of prey in California.

Michael Brandman Associates. 2002- 2005. Project manager/Ecologist. Project Management, biological assessments, focused surveys, mitigation monitoring. Supervised 3-5 employees as well as sub-contractors. Assisted with Community outreach and education programs.

Humboldt State Museum of Vertebrate Zoology. 1996-1998. Assistant Curator. Managed and maintained museum specimens and catalogs, prepared new specimens, assisted researchers in locating relevant specimens from within the museum as well as locating and obtaining loans from other museums world-wide.

Humboldt County museum of Natural History. 1996-1998. Museum Assistant. Designed and created displays, managed collection, assisted with newsletter, created and taught children's classes and summer day camp, manned museum gift shop, organized and trained volunteers.

Highlights of Professional Experience

Focused Surveys, California Gnatcatcher. Assisted in conducting a focused survey for the California gnatcatcher. The survey was conducted to determine the presence and location of any individuals or pairs of gnatcatchers within a 1000-acre parcel located in San Mateo County Park, Orange County, CA. Twenty-nine pairs of gnatcatchers were identified during the 2001 surveys.

Prepared an RMP for County of San Bernardino. Resource Management Plan was prepared for 13,000 acres in the Mojave Desert. During the surveys of the lands, numerous desert tortoise and burrowing owls as well as other sensitive species were observed. The plan focused on the minimizing efforts of a low-density housing project on sensitive species in the Mojave Desert. (2003)

Prepared an RMP for the City of Chino. The RMP was prepared to create a plan to manage the burrowing owl with a 1200 acre specific plan area within the dairy lands of Chino. Conservation measures outlined in the plan included active relocation methods, conservation strategies and habitat restoration. During the preparation of the RMP, CDFG, Audubon, USFWS, and other conservation groups were consulted with the City to create a balanced plan which satisfied all parties. (2002-2003)

Burrowing Owl Focused Surveys. Conducted numerous focused habitat assessments and burrowing owl surveys in Riverside, Los Angeles, San Bernardino and Imperial Counties. Approximately 30 pairs were located during these various surveys (2001-2005).

Burrowing Owl Relocation. Coordinated with CDFG and USFWS to actively translocate one pair of burrowing owls from a project site in the City of Fontana to a conservation site on U.S. Naval Station, Seal Beach. Assisted in the trapping and release efforts as well as monitoring of the site during grading.

Assist in on-going Burrowing Owl research. Assists annually in capturing and banding of juvenile burrowing owls on a conservation site on U.S. Naval Station Seal Beach. Data is used to calculate nest success rates, particularly of translocated birds.

Managed biological studies for proposed wind turbine project. Managed 10 biologists and conducted migratory bird surveys, plant surveys and desert tortoise surveys for a 7 square mile proposed wind farm in the Mojave Desert. 2004-2005

Construction monitoring. Has monitored grading and other construction activity on numerous projects including cellular communications towers, linear fiber-optics lines, park trails, large housing developments, and restoration activities. Species monitored include California gnatcatcher, desert tortoise, burrowing owl, nesting birds, flat-tailed horned lizard, and general wildlife.

Habitat Assessment for DARPA Grand Challenge. 500 Miles within the Mojave desert were surveyed for sensitive species. Three desert tortoise were observed during the surveys as well as other sensitive species in 2003.

Focused Surveys, Arroyo Toad. Conducted presence/absence surveys as well as pit-fall trapping in Camp Pendleton USMCB and San Mateo County Park in San Diego County, CA. Over 1000 Arroyo Toads were detected as well as egg strands, tadpoles and metamorphs during the 2001 surveys.

Consultation with CDFG. Successfully completed 2081 permit applications for take of desert tortoise on a project in the Mojave Desert as well as a take permit for Mohave ground Squirrel in Victorville. 2003-2005.

Quino Checkerspot butterfly Surveys. Over the past 7 years, approximately 10 sites have been surveyed for the endangered butterfly. Survey areas included Northwestern Riverside county to southeastern San Diego County. Two power line projects were part of these surveys and required extensive area surveys. In 2001-2002, QCB host plant surveys were conducted for a fiber optics line project throughout San Diego County.



CULTURAL RESOURCE RECORDS SEARCH and SITE SURVEY REVISED

**VISTA TOWERS SITE
CROWLEY LAKE
OFF HILTON PACK STATION ROAD
MAMMOTH LAKES, MONO COUNTY, CALIFORNIA 93546**

PREPARED FOR:
VISTA TOWERS
10161 BROADVIEW PLACE
NORTH TUSTIN, CALIFORNIA 92705

DATED: SEPTEMBER 12, 2011

PREPARED BY:
ACE ENVIRONMENTAL, LLC
9976 PEAK LOOKOUT STREET
LAS VEGAS, NEVADA 89178
WWW.ACEENVIRONMENTALLC.COM
ACE PROJECT NO. 11-303-125-027

INTRODUCTION

ACE Environmental, LLC (ACE) has completed this Cultural Resource Records Search and Site Survey for Vista Towers (the Client) for the Crowley Lake Site (herein referred to as the Site or Project area). The purpose of this records search and site survey was to identify previously recorded, as well as inventory and record previously unknown historic properties. Historic properties are commonly referred to as cultural resources of archaeological type (prehistoric and/or historic), as well as historic architectural resources HARs (buildings, structures, and/or objects [BSOs], inclusive of districts, landmarks and/or contributing elements thereof) within the Area of Potential Effect (APE), as required by Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended; 1992), and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800. The Section 106 process entails a cultural resource records search, literature review of previously recorded historic properties located within a 1/2-mile radius of the Site, and a survey and inventory of the Project area.

The Site consists of a proposed un-manned telecommunications facility. The Site is located off of the Hilton Pack Station Road overlooking the southern shore of the Crowley Lake. More specifically, ACE identified Universal Transverse Mercator Coordinate (UTM), Zone 11s 344794Me/4159036Mn as the proposed Vista Towers Crowley Lake lease area. The Direct APE and Indirect/Visual APE was established as a result of; (1) review of the Project drawings provided by the Client, (2) the maximum potential for ground disturbance at the Site (footprint of proposed excavation and/or trenching), (3) the extent of existing disturbance at the Site (private, urban and/or industrial development, and (4) any topographic constraints.

The proposed undertaking consists of the following tasks: (1) installation of a 60-foot tall Monopine with collocation of panel antennas within the foliage; (2) construction of two pre-fabricated equipment shelters measuring 12x20x10-foot and 12x26x10-foot; (3) installation of a 48kW stand-by generator and 210-gallon diesel fuel tank within an equipment shelter generator room; (4) construction of a 40x60x6-foot CMU block wall lease area surround with chain link access gates; (5) trenching of power and telco utilities from lease area to nearby transmission line point-of-service connections (400-foot in length), and; (6) grading in of a 12-foot wide access road from Hilton Pack Station Road to the lease area, across rawland for approximately for approximately 1,500-feet.

According to information obtained from the Mono County Assessor's Office (MCAO), the subject parcel is identified with Assessor Parcel Number (APN) 060-110-002.

CULTURAL RESOURCE RECORDS SEARCH

On August 8th 2011, Principal Archaeologist/ Architectural Historian Shannon L. Loftus, MAHP RPA/RPH, conducted a cultural resource records search at the Eastern Information Center (EIC), located on the campus of the University of California, Riverside. Ms. Loftus examined the current inventory of recorded cultural resources

(archaeological and historic architectural) and prior technical studies (inventories and assessments) as mapped on the USGS *Convict Lake, 7.5'* (1983), and *Tom's Place, 7.5'* (1984 and 1994) topographic quadrangles. Ms. Loftus also examined current inventories of the National Register of Historic Places (NRHP), the California Historical Landmarks (CHL), and the California Points of Historical Interest (CPHI), for Mono County to determine if local resources that have been previously evaluated for historic significance are present within 250-feet and ½-mile of the Site. The California State Historic Resources Inventory (HRI) for Mono County was also checked against the Site referential location.

RECORDS SEACH RESULTS

The following page(s) contain(s) tabulated data regarding the cultural resource record search and literature review undertaken at the CCIC in support of this Site study, per the protocol set forth in the *Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission Nationwide Programmatic Agreement* (2005) (PA).

Tabulated Results-Technical Studies (Inventories and Assessments) within ½ -mile of the subject property

EIC Number	Year	Title	Within Project Area	Within ¼-mile	Within ½-mile
-	-	None	✓	-	-
0419	-	<i>Does not pertain to subject property</i>	-	✓	-
0423	-	<i>Does not pertain to subject property</i>	-	✓	✓
0743	-	<i>Does not pertain to subject property</i>	-	-	✓
0772	-	<i>Does not pertain to subject property</i>	-	-	✓
0843	-	<i>Does not pertain to subject property</i>	-	-	✓
0941	-	<i>Does not pertain to subject property</i>	-	✓	✓
3409	-	<i>Does not pertain to subject property</i>	-	✓	✓
0475	-	<i>Does not pertain to subject property</i>	-	-	✓
0982	-	<i>Does not pertain to subject property</i>	-	-	✓
2458	-	<i>Does not pertain to subject property</i>	-	-	✓
3088	-	<i>Does not pertain to subject property</i>	-	-	✓
4497	-	<i>Does not pertain to subject property</i>	-	-	✓

Tabulated Results-Cultural Resources (Archaeological and Historic Architectural) within ½ -mile of the subject property

Trinomial and/or Primary #	Name	Description	Within Project Area	Within ¼-mile	Within ½-mile
-	-	None	✓	-	-
CA-MNO-3246H 26-3307	-	<i>Remnants of Hilton Youth Hostel; destroyed (2008) Not eligible for NRHP</i>	-	✓	-
CA-MNO-2506	-	<i>Lithic Scatter Unevaluated</i>	-	-	✓
CA-MON-0317	-	<i>Habitation and Chipping Station Unevaluated</i>	-	-	✓

Tabulated Results-NRHP, CHL, CPHI, and HRI within 250-feet and ½ -mile of the subject property

Identifier and Source	Number	Description	Within Project Area, or Within 250-feet	Within ½-mile
NRHP	-	<i>None</i>	-	-
CHL	-	<i>None</i>	-	-
CPHI	-	<i>None</i>	-	-
HRI	-	-	-	NA

Summary-Record Search Results

The cultural resource record search conducted in support of this undertaking indicates that the subject property has not been subjected to prior cultural resource study. The nearest study to the Crowley Lake Site was conducted on the parcel to the west and south, as part of a larger study; “*Archaeological Survey of the Doe Ridge and Crowley Lake Fuel Reduction Parcels, Mono County, CA*” (Far Western Anthropological Research Group, Inc. 2009). Far Western identified the nearest parcel (area surveyed) to the west and south the present undertaking as “Crowley Parcel C.” The results of the Far Western inventory were positive;

“Crowley Parcel C

Findings in this parcel were also meager. Only two sites were located, one prehistoric and one historic in age. The newly recorded prehistoric site (MNO-4497) is a small, sparse lithic scatter in the northwestern most part of the parcel. The historic sites, the Hilton Youth Hostel (MNO-3246; Cutts 1998b), is the remains of a hostel/pack station along the west bank of Hilton Creek. The Site was previously recorded, evaluated, and found ineligible to the National Register while the complex of building making up the hostel was standing; since that time the building have been razed, and only foundations and trash scatters remain.

Isolates in the parcel include two of historic-period age, included a large, stone-lined well and a likely claim cairn; and one prehistoric, a milling slick on a granite boulder” (page 37).

There are no NRHP Historic Properties, Historic Districts, CHL and/or CPHI historic properties within 5.0-miles of the proposed Project Area.

Ethnographic Setting-Owens Valley Paiute

The Project Area is located within an area that was utilized by the *Owens Valley Paiute*, a Native California Indian tribe.

The *Owens Valley Paiute* are linguistically of the Numic branch of the Uto-Aztecan language family (Liljeblad and Fowler 1986). The territory occupied by the tribe

included the eastern Sierra Nevada from to the White-Inyo Range and from the Owens River near Owens Lake northward to Mono Lake.

The *Owens Valley Paiute* were more akin to other Native California Indian tribes, as opposed to tribes associated with the Great Basin, for they tended to reside in permanent and semi-permanent villages, and practiced a seasonal rounds based subsistence strategy. "In contrast to the dispersed foraging pattern that characterized most populations throughout the Great Basin, the Owens Valley Paiute had a relatively dense population with a more stable, permanent settlement system" (Far Western 2009: 10). Such a lifestyle afforded exploitation of a variety of food resources, such as freshwater shellfish, fish, and mammal food sources, as well as acquire obsidian and other raw materials for stone tools. Their diverse ecological niche enabled them to foster intricate regional trade networks, and participate in large and far-reaching trade networks.

Prehistoric Period

The pre-history of the Eastern Sierra and western Great Basin Region is divided into four regional phases as defined by Robert Bettinger (1977); Pre-Archaic (12,000-77,500 B.P. [years before present-era]), Early Archaic (7,000-4,000 B.P.), Middle Archaic (4,000-1,500 B.P.), and the Late Archaic (1,500-400 B.P.). Each of these periods is described below.

The Pre-Archaic Period is often referred to in other parts of the state as the Paleo-Indian Period. This temporal cultural sequence consisted of nomadic and semi-nomadic hunter-and-gatherer groups ranging from the coastline to the interior. Campsites were typically located near or along the shorelines of pre-existent lakes, swamps and marshes, bays and estuaries, and/or streams. The Pre-Archaic Period is most often associated with big-game hunters that practiced a seasonal subsistence strategy that followed the migration of large-medium game animals. Artifacts most commonly associated with this period include lithic tools, like spear and dart points, as well as the atlatl (a type of spear-throwing tool), indicative of a hunting-based lifestyle, and lack the millingstone tools more indicative of a sedentary or semi-sedentary lifestyle that would indicate reliance upon the processing of plant and seed food sources.

The Early Archaic Period, known regionally as the Little Lake Phase, was a time of seasonal and highly mobile hunting and gathering lifestyle. Campsites tended to be located along reliable water sources, such as rivers and creeks. Hunting campsites with artifact evidence of lithic manufacture, such as Pinto and Little Lake projectile points are found in the higher elevations (>6,000-feet) (Far Western 2009).

The Middle Archaic Period is transitional period and appears to substantiate a more diverse subsistence strategy that appears to have been more mobile on a seasonal basis, and inclusive of semi-sedentary camp-based processing of plant and seed materials. Middle Archaic sites evince grinding implements, such as the mano and metate for seed processing, core-based and multi-purpose lithic tools, as well as smaller projectile points suggestive of partial reliance upon smaller game animals and/or birds, suggesting a varied seasonal diet of fish, birds, small mammals, and plant and seed

resources. Additionally, Middle Archaic Period sites evince manufacture of lithic “blanks”, such as bifaces, for the purposes of regional trade.

The Late Archaic Period is reflective on-going cultural adaptation and more diverse hunting and gathering strategy, to include the incorporation of the bow-and-arrow, and larger reliance upon milling, such as campsites near bedrock milling complexes.

Historic Period

Spanish explorers arrived on the shores of southern California (Alta California) in the mid-16th Century representing the period of European Contact with the California Indian tribes, and thus marking the beginning of the Historic Period. The Historic Period is also divided into chronological periods affiliated with major historical themes: the *Spanish Period* (circa 1530s to 1821); the *Mexican Period* (1821 to 1848), and; the *American Period* (1848 to present). Historic Period cultural resources are in excess of 45 years of age and are often remnants of the built environment or evidence of early Spanish Period contact. Examples of Historic Period sites include historic landscapes (Spanish explorer camp sites, trails and roads, pastures, vineyards, gardens, and farms), remnant and/or existent BSOs (buildings, bridges, towers, storage tanks, railroads, barns, homestead remains, and adobes), and artifact remains located within trash pits, commonly referred to as a historic-period-refuse-deposit (HPRD). Historic Period sites are temporally affiliated with one or more of the historic themes described below

Spanish Period

As part of the Spanish Crown’s expeditions to the New World, early reconnaissance of the California coastline is associated with the Spanish Period (circa 1533-1821), and more specifically, the 1542 expedition of Juan Rodriguez Cabrillo. Cabrillo first lighted on the shores of San Diego’s present harbor and declared all of California for the King of Spain. He is believed to have explored the majority of the Alta California coastline from San Diego to Point Reyes. This period of contact with Europeans fostered international trade between the Spanish and the Native Californians, thereby facilitating the earliest Spanish colonizing efforts of 1769 with the expeditions of Gaspar de Portola and Franciscan Friar Junípero Serra. The Spanish colonization efforts were the direct result of the Spanish Crown’s desire to control the shipping and freighting of goods in the Pacific via the Missionization of the Native California Indians. *Mission San Diego de Alcalá* was constructed in 1769 by Serra, and was the first of 21 missions located along the El Camino Real between San Diego and San Francisco. The Spanish colonization and Missionization efforts brought new diseases to the Native Californians and decimated the population. By the early 1800s, the Spanish Missionization system was in a state of collapse, and Mexican forces were engaged in a war of independence with the Spain.

Mexican Period

In 1821, Mexico had won independence from Spain, thus marking the beginning of the Mexican Period (1821-1848). However, during their war of independence, other nations and pioneers had begun to enter the California territory, including the Russians at Fort Ross (1812), Americans from the east engaged in hide-and-tallow trade with coastal

ports and outposts, and other interior-based fur-trappers. The Mexican Period also resulted in division of Spanish controlled lands into 29 Mexican Period Ranchos in present-day San Diego County. In 1847, the Mexican-American War ended with the Treaty of Cahuenga, and the following year the Treaty of Guadalupe Hidalgo resulted in the concession of California and the majority of the southwest to American jurisdiction. The following year, 1849, gold was discovered in northern California along the American River.

American Period

In 1849, the year most commonly associated with the arrival of tens of thousands of gold miners, known as the "Forty-Niners," also marks the earliest transition of California from an American controlled territory to that of a formal state. On September 9, 1850, California was admitted to the Union as a slave-free state. Since the mid-19th Century to present-day, California has undergone a remarkable transformation from a rurally developed and agricultural-based economy to that of a post-World War II urbanized environment and an industrial, technological, and manufacturing-based economy.

CULTURAL RESOURCES SITE SURVEY

On August 18th 2011, Ms. Loftus conducted a Site visit and survey of the Project area and the Direct and Indirect APE. The Site is located off of Hilton Pack Station Road, to the west of Hilton Pack Station Road, on a narrow flat ridge line overlooking the southern shore of Crowley Lake.

The Direct APE and Indirect/Visual APE was established as a result of; (1) review of the Project drawings provided by the Client, (2) the maximum potential for ground disturbance at the Site (footprint of proposed excavation and/or trenching), (3) the extent of existing disturbance at the Site (private, urban and/or industrial development, and (4) any topographic constraints.

Direct APE

The Direct APE consists of the proposed approximated 1,500-foot long x 12-foot wide access road, to be graded in, the 40x60-foot proposed lease area to house the Crowley Lake un-manned telecommunications facility, as described in the Introduction section above, and the 400-foot power and telco trench from the lease area to an existing transmission line point-of-service connection.

Survey strategy included review of the Client provided drawings and mapping of the proposed facility, inclusive of access road and trenching via GoogleEarth™. Review of topographic maps and general knowledge of topography within the region resulted in developing a survey strategy that would provide adequate coverage for modest deviation (15-30-feet) from the proposed footprint, as provide in the drawings. Please refer to Figure 2 at the end of the study herein for an aerial graphic identifying the Project Area, survey coverage, and findings.

The survey methodology consisted of one-solo transect along the proposed access road to the lease area location, and one-solo transect along the proposed access road from the lease area location to the Hilton Pack Station Road. These solo transects were approximately 15-meters apart thus providing adequate coverage along the proposed access road footprint (per drawings).

At the proposed lease area, the survey methodology consisted of solo one-meter transects for an area measuring 400x600-feet in order to provide adequate coverage for deviation from the footprint (per drawings). The survey methodology for the power and telco trench from the lease area to the transmission line for power and telco point-of-service connection was included in the lease area survey as no specific pole(s) was/were identified for connection purposes.

Ground visibility was good, approximately 60%. Soils were noted to be alluvium, highly granitic and consisting of a high content of coarse sands and small gravels. Bedrock boulders and low-lying outcrops were noted at the toe of the slope, west of Hilton Pack Station Road, up onto the flat-ridge, and scattered northward toward the lake. The ground is level from the point of departure at Hilton Pack Station Road and west for approximately 450-feet. At this juncture, the climb is short and steep up a granite boulder covered hillside approximately 20-feet tall. At the top of the incline the landform levels out to that of a flattened ridgeline gradually sloping downward toward the north-northeast, toward the lake.

One prehistoric site, referred to a Crowley Lake 1, consists of three prehistoric artifacts was identified within the vicinity of the proposed lease area. The site measures 175x70-feet, based upon the location of the three artifacts described below.

- Crowley Lake 1-1

This artifact is a small tertiary flake of black obsidian (Zone 11 South 344819mE/4159314mN).

- Crowley Lake 1-2

This artifact is a small tertiary flake or flaked fragment of white quartz shatter (Zone 11 South 344835mE/4159326mN).

- Crowley Lake 1-3

This artifact is a small tertiary flake of gray/black obsidian (Zone 11 South 344801mE/4159364mN).

The proximity of the artifacts appears to represent that of a low-density lithic scatter. No additional artifacts of prehistoric-era were identified within the survey coverage area (Figure 2). All granite boulders and boulder outcrops within the survey coverage area were inspected for evidence of cultural modification (grinding slick,

petroglyph/pictograph, and rock shelter). The result of the granite boulder inspection was negative.

One small single-episode historic period refuse deposit (hprd), or single-episode historic refuse relocation deposit was also identified (Crowley Lake 2). This hprd is situated to the west of Hilton Pack Station Road, at the base of the incline leading up to the flat-ridge, in the path of the proposed 12 x 1500-foot long access road.

- Crowley Lake 2

This site is a small single-episode hprd, or more likely, a location consisting of re-deposited historic period refuse, utilized for target shooting practice. The artifacts included unidentified metal scrap, crushed and bullet riddled 50-gallon drum, three fragments of clear glass from a small jar, several clear-glazed, white stoneware fragments, and milled wood fragments, and one matchstick can-lid. The artifacts all appear to have been utilized for target practice and several spent shotgun shells litter that area. The site measures 8x8-feet.

Indirect APE

The Indirect APE of the Site consists of a visual radius of 250-feet as well as the ½ -mile records search radius. The Indirect APE is undeveloped for the most part. A sewage treatment plant is present to the west, the Hilton Pack Station Road to the east, the lake to the north and northeast with some private development along the southern shoreline, and the mountain range rising to the west.

Determination of Effect

Direct APE

There are two previously unknown cultural resources of archaeological type present within the Direct APE of the undertaking.

Crowley Lake 1, a prehistoric site measuring 175x70-feet, is situated to the north and northeast of the proposed lease area and power/telco trench area, as pictured on the Client provided drawings. However, terrain and granite boulders within the area indicate that strict adherence to the proposed footprint is unlikely and the Project will require modification and/or adjustment to the design, to include relocation of boulders, strategic mobility of equipment, and deviation of the alignment of the proposed access road. As a result, a conservative approach places the Crowley Lake 1 site within the potential Direct APE of the Project Area. The Crowley Lake 1 site is an unevaluated prehistoric cultural resource with yet un-defined boundaries, as survey methodology was confined to a narrow area of Direct and/or Indirect/Visual are of effect. The site is unevaluated for historical significance.

Cultural resources are evaluated for historical significance against four criterion of the NRHP, as established by the National Historic Preservation Act (NHPA), within the framework of the Sections 106 process. With respect to the Crowley Lake 1 site, the site

is not associated with an event contributing to the broad patterns of our history (Criteria A). Nor is the site associated with a person of historical significance (Criteria B). The Site does not appear to be a representative example of the work of a master, and thus possesses no association in this regard (Criteria C). However, it remains unknown at present if the Site has the potential to yield information that would contribute to the general understanding of our past (Criteria D). As such, and until evaluated for historical significance, the Crowley Lake 1 site must be assumed to be a Historic Property. Given the fluidity of the Project, at this time, the determination of Effect upon the Crowley Lake 1 site is that of unknown, and must be assumed to be Adverse.

Crowley Lake 2 is a small HPRD measuring 8x8-feet and consisting of historic-era artifact fragments, as described above, that appear to have been utilized for target shooting practice. The site is small and contains no diagnostic artifacts. The site is not associated with an event contributing to the broad patterns of our history (Criteria A). Nor is the site associated with a person of historical significance (Criteria B). The Site does not appear to be a representative example of the work of a master, and thus possesses no association in this regard (Criteria C). Lastly, the Site does not appear likely to yield information that would contribute to the general understanding of our past (Criteria D). As such, Crowley Lake 2 is not historically significant, and thus not a Historic Property for the purposes of the undertaking.

MANAGEMENT RECOMMENDATIONS

Summary

In keeping with 36 CFR 800, and the PA, Shannon Loftus has performed a cultural resource records search and Site survey to assess potential adverse effects as a result of the proposed undertaking. The results of the study herein identify two previously unknown cultural resources of archaeological type; a prehistoric lithic scatter (Crowley Lake 1), and a HPRD (Crowley Lake 2).

Recommendations

With respect to the latter, Crowley Lake 2 does not appear to be historically significant, and thus not a Historic Property for the purposes of the undertaking, and no further mitigation is recommended in this regard.

With respect to Crowley Lake 1; the Section 106 process requires assessment of cultural resources for historical significance when a cultural resource is identified within the Direct APE of an undertaking. With respect to the prehistoric archaeological site identified as Crowley Lake 1, there are two issues of concern; (1) does the site extend into the Direct APE, and (2) Criterion D of the NHPA Criterion; does the site have the ability to yield information important to the understanding of our past. These questions are not answerable at this time as the extent of the site into the Direct APE is unknown, there is no confirmed site typology, and/or chronological placement for the site.

Phase II (assessment) would answer these questions. However, Phase II may not be warranted as the site may not extend into the Direct APE. As such, pursuit of Phase II study of Crowley Lake 1 would be considered damaging to the resource, as the level of excavation (ground disturbance by an archaeologist) would be adding to the ground disturbance of the site via construction, or result in direct and unnecessary disturbance to the site if the site does not extend into the Direct APE. Therefore, ACE recommends that the Client undertake an Extended Phase I; a crosshair-transect of STPs to better define the limits of the site horizontally and vertically. Ideally this level of mitigation will reveal information such as site type, size, and whether or not the site extends into the Direct APE. An Extended Phase I would provide for the minimal level of ground disturbance to the site that is necessary to better define the limits of the site and to determine if the site extends into the Direct APE. If the site does not extend into the Direct APE then presence of archaeological monitors during construction would suffice as an appropriate level of mitigation with respect to ground disturbance outside the footprint of the Project Area, with respect to mobilization of equipment pertaining to the undertaking, and/or deviation of the footprint for geologic and terrain related issues. Additionally, it is possible that the Extended Phase I will provide enough data in order to make a determination as to historical significance of the site resulting in a Determination of Effect for the undertaking upon the Direct and Indirect/Visual APE.

In summary, ACE recommends that the Client consult with Mono County and retain the services of a qualified archaeologist to perform an Extended Phase I (presence-absence test) in the vicinity of the proposed lease area.

Should human remains be encountered during the course of ground-disturbing construction activities associated with this Project, all ground-disturbing construction work shall halt and be diverted away from the area associated with the unanticipated discovery, and the County Coroner will be immediately notified in accordance with Section 5097.98 of the California Public Resources Code. The County Coroner shall determine whether the remains are human and if they are of scientific and/or cultural concern. If the Coroner determines that the remains are prehistoric-human, he/she will initiate contact the Native American Heritage Commission (NAHC) within 24-hours of his/her determination. The NAHC is responsible for determination and designation of the appropriate most-likely-descendant (MLD), responsible for disposition of the remains, in accordance with Section 7050.5 of the California Health and Safety Code. The MLD will make his/her recommendations as to disposition of the remains within 24 hours of notice by the NAHC. This recommendation by the MLD may include scientific removal and preservation-guided anthropological and/or scientific analysis of human remains, grave goods, sacred objects, and/or items of cultural patrimony associated with Native American burials in accordance with Section 7050.5 of the California Health and Safety Code.

LIMITATIONS STATEMENT

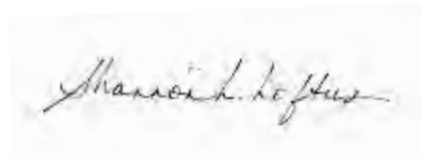
ACE's professional services have been performed, our findings obtained, and our recommendations prepared in accordance with standard principles and practices in the field of environmental consulting services. This statement is in lieu of other statements

either expressed or implied.

This report is intended for the sole use of Vista Towers and may not be used or relied upon by any other party without the written consent of Vista Towers and ACE. The scope of services performed in this evaluation may not be appropriate to satisfy the needs of other users, and use or re-use of this document or the findings, conclusions, or recommendations is at the risk of said user.

It is ACE's goal to provide value-added services to our Clients, thus becoming an integral member of their team. If ACE can provide any further assistance regarding this project, please do not hesitate to contact the undersigned at LoftusSL@yahoo.com.

Sincerely,
ACE Environmental, LLC

A handwritten signature in cursive script, reading "Shannon L. Loftus". The signature is written in dark ink on a light-colored background.

Shannon L. Loftus, MAHP RPA/RPH
Principal-Architectural Historian/Archeologist

Attachments: Topographic Map, Photos, References, Resume

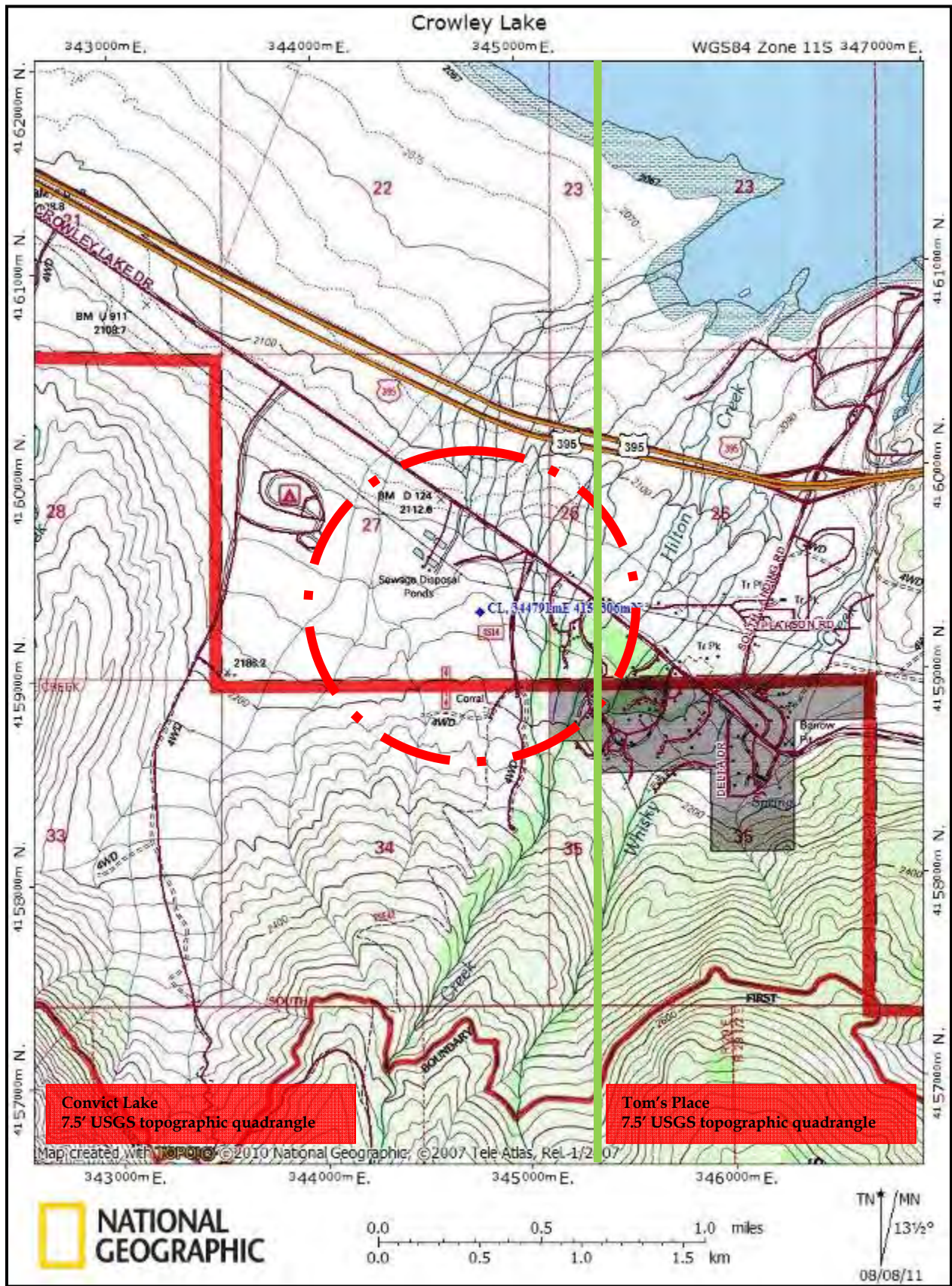


Figure 1. Project Location Map



Figure 2. Aerial graphic depicting Project Area, and survey coverage (red overlay).



Figure 3. Crowley Lake 1 site at the proposed lease area. Blue line represents the point-of-connection transmission line.



Photo 1. View to west from Hilton Pack Station Road along proposed access road route.



Photo 2. View to west and up at boulder covered incline, along proposed access road route.



Photo 3. View to west along proposed access road route, at the top of the flattened ridge area above the incline.



Photo 4. View to north along proposed access road route.



Photo 5. View to north at proposed lease area and Indirect/Visual APE beyond.



Photo 6. View to west at proposed lease area and Indirect/Visual APE beyond.



Photo 7. View to south at proposed lease area and Indirect/Visual APE.



Photo 8. View to east at proposed lease area and Indirect/Visual APE beyond.



Photo 9. View to east-northeast at Indirect/Visual APE from point-of-connection transmission line.



Photo 10. Crowley Lake 1-1, small tertiary obsidian flake.



Photo 11. Crowley Lake 1-2, small tertiary obsidian flake.



Photo 12. Crowley Lake 2-1, crushed and bullet riddled 50-gallon drum and milled wood scraps.



Photo 13. Crowley Lake 2-1, crushed metal can and clear glass fragments.

REFERENCES

- Bada, J.L. and P.M. Masters
1978 The Antiquity of Human Beings in the Americas: Evidence Derived from Amino Acid Racemization Dating of Paleoindian Skeletons. Fullerton: *Society for California Archaeology, Occasional Papers in Method and Theory in California Archaeology* 2:15-24.
- Bada, J.L., R.A. Schroder, and G.F. Carter
1974 New Evidence for the Antiquity of Man in North America Deducted from Aspartic Acid Racemization. In *Science* 184:791-793.
- Bakker, E.
1984 *An Island Called California*. University of California, Berkeley.
- Berger, R. et al.
1971 *New Radiocarbon Dates Based on Bone Collagen of California Paleo Indians*. Berkeley: Contributions of the University Research Faculty, 12: 43-44; Berkeley, California.
- Bettinger, Robert
1977 Aboriginal Human Ecology in Owens Valley, Eastern California. Prehistoric Change in the Great Basin. In: *American Antiquity* 43:3-17.
- Borden, C.E.
1969 New Evidence on the Early Peopling of the New World. Chicago: *Encyclopedia Britannica Book of the Year, 1969: 101-104*.
- California Points of Historical Interest
2011 Eastern Information Center; In-house document
- California State University, Chico
2011 *California Historic Topo Map Collection* in the Merriam Library; website:<
(http://cricket.csuchico.edu/maps/topo_search.html)>, Accessed August 8th 2011. Maps Reviewed include:
1934 *Mount Morrison, 30' topographic quadrangle-1914 Reprint*
- Far Western Anthropological Research Group, Inc.
2009 *Archaeological Survey of the Doe Ridge and Crowley Lake Fuel Reduction Parcels, Mono Count, CA*. On-file EIC.
- Federal Communications Commission
2004 *Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission Nationwide Programmatic Agreement*

Heizer, Robert F.

1947 *Francis Drake and the California Indians*. University of California Publications in American Archaeology and Ethnology 42(3):251-302.

Heizer R.F. and S.F. Cook

1952 Fluorine and Other Chemical Test of some North American Human and Fossil Bones. In, *American Journal of Physical Anthropology* 10(3):289-393.

Historic Resource Inventory

2011 Eastern Information Center; In-house document

Holland, Robert F.

1986 *Preliminary Descriptions of the Terrestrial Natural Communities of California*. State of California, The Resources Agency; Department of Fish and Game.

King, Thomas F.

2004 *Cultural Resource Laws and Practice*. Second Edition. Alta Mira Press, Walnut Creek, CA.

Kroeber, Alfred L.

1925 *Handbook of the Indians of California*. Bureau of American Ethnology, Bulletin 78. Washington, D.C.: Smithsonian Institution

Laylander, Don

2000 *Early Ethnography of the Californias: 1533-1825*. Coyote Press Archives of California Prehistory, no. 47.

Moratto, Michael

1984 *California Archaeology*. Academic Press, Inc. Orlando.

National Geographic

2002 *TOPO! California*. Recreational Mapping Software. Updated 2/2008

National Register of Historical Places

2011 Historic Districts/Mono; website:

< <http://www.nationalregisterofhistoricplaces.com/ca/Mono/districts.html>>, Accessed August 8th 2011

2011 Historic State Listings/California; website:

<http://www.nationalregisterofhistoricplaces.com/ca/Mono/state.html>, Accessed August 8th 2011

Office of Historic Preservation

2011 California Historic Landmarks/Mono County; website:

< http://ohp.parks.ca.gov/listed_resources/?view=alpha&criteria=26>, Accessed August 8th 2011

Protsch, R.R.

1978 *Catalog of Fossil Hominids in North America*. New York and Stuttgart:
Fischer.

Reps, John W.

1965 *Town Planning in Frontier America*. Princeton University Press-Princeton,
NJ.

Rhoades, Elizabeth R.

1971 *Foreigners in Southern California during the Mexican Period*. San Francisco,
CA, R and E Research Associates (a reprint of a 1924 thesis for the University of
California).

United States Geological Survey

1953 Casa Diablo, 15' topographic quadrangle

1953 Mount Morrison, 15' topographic quadrangle

1983 Convict Lake, 7.5' topographic quadrangle

1984 Tom's Place, 7.5' topographic quadrangle

1994 Tom's Place, 7.5' topographic quadrangle

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Education

M.A., Historic Preservation 2007, Savannah College of Art and Design (Savannah, GA)

B.A., Anthropology, 2002, Union Institute and University (Cincinnati, OH)

Experience Summary

Shannon has performed various archaeological, historic architectural and paleontologic resource management tasks over the course of 12 years. She has managed/supervised personnel, interfaced with regulators, consulted with Native Americans and contractors, provided technical and administrative support, performed field surveys and site mapping, prepared letter reports and site records, prepared technical reports, as well as sections of EIR/EIS documents, carried out excavation and data recovery on pre-historic and historic sites, as well as historic building/structure inventory, evaluations and assessments. Furthermore, she has managed field labs, prepared catalogs and artifacts for curation, illustrated unique material, executed and prepared written artifact analysis for inclusion in a final report, and monitored construction. She has also served as a member of an interdisciplinary cultural resources management team supporting National Historic Preservation Act functions on two military facilities. This includes community outreach and education, events coordination, contractor training, and public speaking. Anthropologically, she has performed ethno-historic research relating to Native Americans and the Amish (Hutterian) Brethren, as well as, ethno-botanical research pertaining to the Purisimeño Chumash of the south central California coast. She possesses paleontologic experience temporally relevant to the Late Pleistocene, specifically Rancho La Brea fauna. Currently, she consults as an architectural historian/archaeologist for private firms in the southwestern United States.

Professional Experience

Principal-Architectural History/Archaeology

Presently

ACE Environmental, LLC: Wireless-telecommunication facility studies for FCC/Section 106 compliance throughout the southwest.

Architectural Historian

Presently

AECOM: Architectural inventories and assessments, and historic context statements, as needed. Preparation of historic context statements and research designs as needed.

Consulting Architectural Historian/Archaeologist

Presently

SRS Corp: Architectural inventories and assessments, and historic context statements, as needed. Preparation of historic context statements and research designs as needed.

Senior Cultural Resources Specialist

Presently

Chambers Group, Inc: Architectural and archaeological inventories and assessments, as needed. Preparation of historic context statements and research designs as needed.

Principal Architectural Historian/Project Manager (Senior Staff Archaeologist)

5/2007-9/2009

ArchaeoPaleo Resource Management, Inc: Project management, historic architectural and archaeological studies in southern CA.

Archaeologist/Site Protection Specialist

3/2004-11/2004

CH2M Hill under contract to JT3/Edwards AFB, CA: Archaeological Site Protection Manager (ARPA Program). Develop an approach and treatment plan for a baseline condition assessment for selected sites, including a threatened/sensitive index, stabilization, routine monitoring, or emergency data recovery.

Archaeologist

3/2002-3/2004

Vandenberg AFB: Daily Duties: Develop projects in compliance with the National Environmental Policy Act and Sections 106 and 110 of the NHPA, prepare Statements of Work, review/comment proposals and technical reports, manage contracts/projects, supervise contractors, inspect work progress, provide administrative, technical, and funding support, consult with Native Americans and contractor personnel, prepare Memorandums of Agreement when necessary, perform specialized research as needed.

Lab Technician

3/2002-3/2004

Applied Earthworks, Inc: Lab Technician and construction monitoring.

Archaeologist/Paleontologist (PT two employers)

7/2001-3/2002

Cogstone Resource Management/Paleo Environmental Associates: Field Archaeologist/Paleontologist: Construction monitoring.

Lead Archaeologist

5/2001-6/2001

Tierra Environmental: Lead Archaeologist on a two-component testing and data recovery project in Huntington Beach, CA.

Archaeologist/Field Paleontologist

4/2001-5/2001

L&L Environmental: Archaeologist/Field Paleontologist: construction monitoring.

Archaeological Associate

6/1999-4/2001

Chambers Group, Inc: Archaeological Associate; Cultural Resources Monitor Coordinator; Lead Archaeological Monitor; Field Paleontologist when needed; Field Technician.

Curatorial Assistant

1/1998-6/1999

San Diego Museum of Man: Curatorial Intern in Latin American collection.

** Out of CRM industry due to birth of child 5/2005-5/2007.*

Community Service/Member Organizations

Sunday School Coordinator: Good Shepherd Lutheran Church, Tehachapi, CA (present)

Board Member-at-Large: Friends of the Tehachapi Depot (2008-2010), CA.

Grant Writer: Friends of the Tehachapi Depot (2008-present), CA.

Commissioner-at-Large: Havre-Hill County Historic Preservation Commission (2007), MT.

Member: National Trust for Historic Preservation (active)

Member: Tehachapi Main Street (active)

Member: Kern County Archaeological Society (active)

Member: California Historical Society (active)

License/Certifications

Register of Professional Archaeologists (RPA):-active/current #16157

Register of Professional Historians (RPH):-active/current California Council for the Promotion of History, CCPH #608

State Historic Consultant-California

Project Director Permitted-Arizona

HAZMAT General Site Worker 49 CFR, 29 CFR 1910.120 Title 8, CCR-5192, 40 CFR (Expired)

Awards and Grants

2011	<i>Bakersfield California Foundation-Grant for the Tehachapi Depot Display Cases Project (\$5,000)</i>
2010	<i>National Railroad Historical Society-Grant for Tehachapi Depot Signal Restoration Project (\$4,500)</i>
2009	<i>California Council for the Promotion of History-Grant for Tehachapi Depot Brochure Project (\$750)</i>
2004-2007	<i>Graduate Fellowship. Revolving \$5000.00 tuition fellowship (SCAD).</i>
2002	<i>President's Bronze Medal for Academic Excellence. Senior Thesis (UI).</i>

Professional Reports

2011

Loftus, Shannon

Loftus, Shannon

- Numerous "*Cultural Resource Records Search and Site Survey*" Reports (telecommunications siting)
- Numerous "*Historic Architectural Resource-Inventory and Assessment*" Reports (telecommunications siting)
- Numerous "*Historic Architectural Resource-Finding of Evaluation Summary*" Reports (telecommunications siting)

2010

Co-author

Harris, Nina et al. with Linda Honey, Shannon Loftus, and David Smith "*Praxis 395 Broadband*" Backbone, cultural resources study for long-haul fiber optic network: Barstow to Boron and Kramer Junction to Reno. In-process, no formal title at present.

Loftus, Shannon

Loftus, Shannon L. "*Revised-Historic Resources Evaluation: Assessor Parcel Numbers 251-180-005-6 (3610 Valencia Hill Drive) University of California-Riverside, City of Riverside, Riverside County, California.*" On-file UCR and Chambers Group, Inc. Revision to earlier study undertaken by CGI personnel (2007).

Loftus, Shannon

- Numerous "*Cultural Resource Records Search and Site Survey*" Reports (telecommunications siting)
- Numerous "*Historic Architectural Resource-Inventory and Assessment*" Reports (telecommunications siting)
- Numerous "*Historic Architectural Resource-Finding of Evaluation Summary*" Reports (telecommunications siting)
- SCE Deteriorated Pole Replacement Projects in Los Angeles, Kern, and Ventura Counties

2009

Loftus, Shannon

- Numerous "*Cultural Resource Records Search and Site Survey*" Reports (telecommunications siting)
- Numerous "*Historic Architectural Resource-Inventory and Assessment*" Reports (telecommunications siting)
- Numerous "*Historic Architectural Resource-Finding of Evaluation Summary*" Reports (telecommunications siting)
- SCE Deteriorated Pole Replacement Projects in Los Angeles, Kern, and Ventura Counties

Loftus, Shannon "*Paleontologic and Cultural Resources Survey-95.52 Acres in Newhall, City of Newhall, County of Los Angeles, CA.*" Pending-APRMI

Loftus, Shannon "*Paleontologic and Cultural Resources Survey-SCLA-Victorville Wastewater Treatment Facility, City of Victorville, County of Los Angeles, CA.*"

Loftus, Shannon et al. "*Cultural Resources Inventory: California High-Speed Train Project; Anaheim to Los Angeles Section of the Los Angeles to San Diego (LOSSAN) Corridor, Los Angeles and Orange Counties.*" Project taken over by ICF Jones and Stokes; all drafts in their possession for EIR preparation.

Loftus, Shannon "*Addendum-Paleontologic and Cultural Resource Compliance Monitoring and Mitigation Report: Los Angeles County Metropolitan Transit Authority, Eastside Goldline Transit Corridor Project, LA County, California.*" Pending APRMI

Loftus, Shannon "*Cultural Resource Inventory: Penmar Water Quality Improvement Project-Venice, CA, City and County of Los Angeles.*"

2008

Loftus, Shannon et al. "*Cultural and Paleontologic Resource Survey Report: Carbon Canyon Regional Park-Creek Sediment Removal and Trail Crossings Repairs, Orange County, California.*" Pending APRMI

Loftus, Shannon et al. "Cultural and Paleontologic Resource Survey Report: Upper Newport Bay, Santa Ana Dehli Channel-Restoration and Bridge Repair, Orange County, California." Pending APRMI

Loftus, Shannon et al. "Cultural and Paleontologic Resource Survey Report: Laguna Coast Wilderness Park-Trails and Road Repair, Orange County, California." Pending APRMI

Loftus, Shannon L. "Historic Structures Report: Movie Town Plaza-7300-7328 Santa Monica Boulevard; City of West Hollywood-County of Los Angeles."

Loftus, Shannon L. "Cultural Resource and Paleontologic Assessment: North Los Angeles/Kern County Regional Recycled Water Master Plan, Los Angeles/Kern Counties, California."

Loftus, Shannon L. "Cultural Resources Feasibility Study Report: Memorial Park Water Infrastructure-Santa Monica Reliability Improvement Project XP-96945401-0, City of Santa Monica, Los Angeles County, California."

Loftus, Shannon L. "Treatment Plan for the Completion of a Testing and Evaluation Program at Archaeological site JR-M19, Joshua Ranch Development; City of Palmdale, Los Angeles County, California." Pending APRMI

Loftus, Shannon. "Lohman Townsite; National Register of Historic Places Nomination." On-file Savannah College of Art and Design-Savannah, GA; Montana State Historic Preservation Officer-Mark Baumler-NRHP nomination in-progress.

2007

Loftus, Shannon L. et al (Michael Richards, Robert Raamirez, Karimah Richardson) "Phase II Testing, Mitigation and Monitoring Results of the Joshua Ranch Property; City of Palmdale, Los Angeles County, California." Draft; Pending APRMI

Loftus, Shannon L. "Lohman Town Site: A Historic Resource Inventory and Rehabilitation Plan-Historic Lohman Town Site Remains, Lohman, MT". Master's Thesis, on file Historic Preservation Department, Savannah College of Art and Design, Savannah GA and Montana State Historic Preservation Office, Helena, MT.

Loftus, Shannon L. (editor) "Cultural Resource Monitoring and Collection Report: Upper San Gabriel Valley Municipal Water District-San Gabriel Valley Water Recycling Project, Phase IIA" by Jackson, A. and Turner, R.

2004

Loftus, Shannon L. et al. "Site Protection Support" in "ARPA Program: Site Protection Support and Range Rider Program for Fiscal Year 2004, Edwards AFB, California"

Davis, Shannon L. "Memorandum of Agreement between the Office of Historic Preservation and the United States Air Force, CA-SBA-1145, Vandenberg AFB, CA"

2003

Davis, Shannon L. "Emergency Data Recovery and National Register Eligibility Testing at CA-SBA-649" -SOW.

Davis, Shannon L. "Archaeological and Paleontologic Survey of the Sea Cliff, Drainages, Cut Banks, and Back Beach Dunal Interface"-SOW.

Davis, Shannon L. "Chumash Plant Resources"

Davis, Shannon L. (Assistant preparer-background research) "Emergency Stabilization and Retrofit of the 13th Street Bridge" Environmental Assessment.

2002

Davis, Shannon L. "Chumash Pre-history: A Quick Review"

2001

Davis, Shannon L. "13th Street Bridge, Emergency Stabilization" Summary report of findings.

Davis, Shannon L. "The Hutterian Brethren: An Ethno-history" Senior Thesis, on file Union Institute, Cincinnati, OH and Sacramento, CA, and Mennonite Historical Society, Goshen College, Goshen, IN

2000

Davis, Shannon "Bone Artifacts" Section 5.3 in "Salvage Excavation of a Burial Feature in Montecito, CA. CA-SBA-1213" eds. Mckeehan, J. and Luhnnow, G.

Davis, Shannon L. "Running Line Changes, WS06, CA-VEN-550, Santa Susana Railroad Depot, and Santa Susana Pass Road"

Davis, Shannon L. "Cultural Resources Survey Report for Level 3 Long Haul Fiber Optic Project: WS06 Carpinteria Workaround, Foothill Road Alternative, in the City of Carpinteria and Adjacent Unincorporated Areas, Santa Barbara and Ventura Counties, California" in Yost et al. 2003, "Final Report on Cultural Resource Monitoring Level (3) Long Haul Fiber Optic Running Line San Luis Obispo to Burbank, CA."

Davis, Shannon L. "Survey of Proposed Staging Yard, WS06, Simi Valley, CA" in Yost et al. 2003, "Final Report on Cultural Resource Monitoring Level (3) Long Haul Fiber Optic Running Line San Luis Obispo to Burbank, CA."

Davis, Shannon L. "Survey of Carpinteria Work-around for Level 3 Fiber Optic Project"

1999

Davis, Shannon L. Contributing author "PCC-4 and PCC-8" in "Cultural Resource Survey and Assessment of 38 Acres in Green Valley" ed. De Barros, P.

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION PRIMARY RECORD		Primary # HRI # Trinomial NRHP Status Code 7	Other
Listings	Review Code	Reviewer	Date

Page 1 of 4 *Resource Name or #: Crowley Lake 1

P1. Other Identifier:

*P2. Location: Not for Publication Unrestricted *a. County:

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Convict Lake Date: 1983 T ;N/A R N/A ¼ of ¼ of Sec N/A; SB.B.M.

c. Address: Off Hilton Pack Station Road City: Los Angeles Zip:

d. UTM: Zone: 11 ; 344819mE 4159314mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: 8251

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The site is a sparse lithic scatter consisting of three artifacts. The site measures 175x70-feet, based upon the location of the three artifacts described below.

- Crowley Lake 1-1
This artifact is a small tertiary flake of black obsidian (Zone 11 South 344819mE/4159314mN).
- Crowley Lake 1-2
This artifact is a small tertiary flake or flaked fragment of white quartz shatter (Zone 11 South 344835mE/4159326mN).
- Crowley Lake 1-3
This artifact is a small tertiary flake of gray/black obsidian (Zone 11 South 344801mE/4159364mN).

The proximity of the artifacts appears to represent that of a low-density lithic scatter. No additional artifacts of prehistoric-era were identified within the survey coverage area (Figure 2). All granite boulders and boulder outcrops within the survey coverage area were inspected for evidence of cultural modification (grinding slick, petroglyph/pictograph, and rock shelter). The result of the granite boulder inspection was negative.

*P3b. Resource Attributes: (List attributes and codes) AP2: lithic scatter

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.) See Continuation Sheet for additional P5a and b.



P5b. Description of Photo View to north

*P6. Date Constructed/Age and Sources:

Historic Prehistoric Both

*P7. Owner and Address:

City of Los Angeles
300 Mandich Street
Bishop, CA 93514

*P8. Recorded by: (Name, affiliation, and address)

Shannon L. Loftus MAHP/RPA
For: ACE Environmental, LLC
9976 Peak Lookout Street
Las Vegas, NV 89178

*P9. Date Recorded: 8/18/2011

*P10. Survey Type: Inventory

*P11. Report Citation: Loftus, Shannon L. for ACE Environmental, LLC. Cultural Resource Records Search and Site Visit: Vista Towers Site: Crowley Lake, Off Hilton Pack Station Road, Mammoth Lakes, Mono County, CA 93546

*Attachments: NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List):

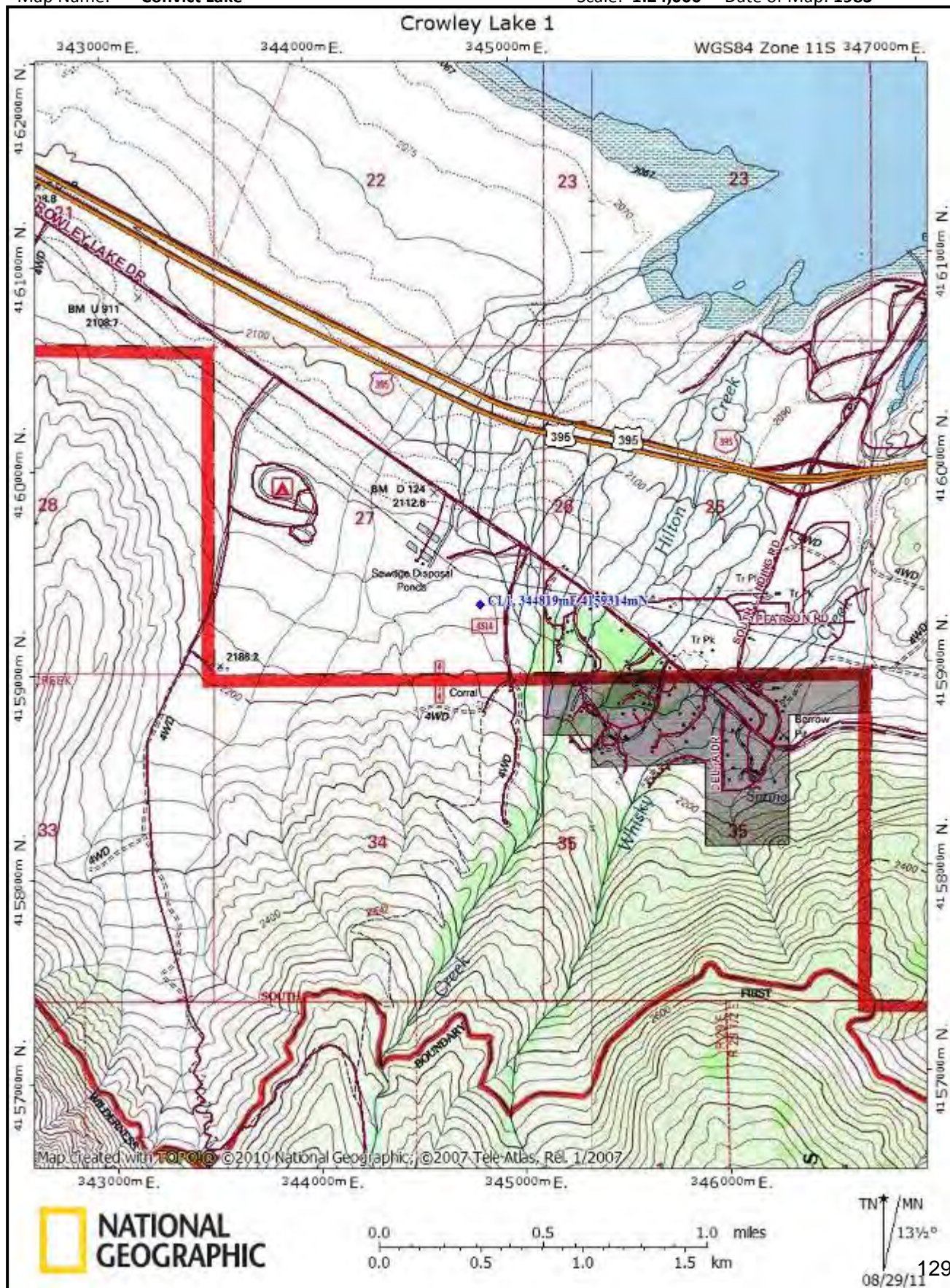




Figure 2. Aerial graphic depicting Project Area, and survey coverage (red overlay).



Figure 3. Crowley Lake 1 site at the proposed lease area. Blue line represents the point-of-connection transmission line.

Page 4 of 4 *Resource Name or #: Crowley Lake 1
P5a. Photos



Photo 1. Crowley Lake 1-1, small tertiary obsidian flake.



Photo 2. Crowley Lake 1-2, small tertiary obsidian flake.

Listings

Review Code

Reviewer

Date

Page 1 of 3

*Resource Name or #: Crowley Lake 2

P1. Other Identifier:

*P2. Location: Not for Publication Unrestricted *a. County:

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Convict Lake Date: 1983 T ;N/A R N/A ¼ of ¼ of Sec N/A; SB.B.M.

c. Address: Off Hilton Pack Station Road City: Los Angeles Zip:

d. UTM: Zone: 11 ; 344843mE 4159017mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: 8230

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This site is a small single-episode hprd, or more likely, a location consisting of re-deposited historic period refuse, utilized for target shooting practice. The artifacts included unidentified metal scrap, crushed and bullet riddled 50-gallon drum, three fragments of clear glass from a small jar, several clear-glazed, white stoneware fragments, and milled wood fragments, and one matchstick can-lid. The artifacts all appear to have been utilized for target practice and several spent shotgun shells litter that area. The site measures 8x8-feet.

*P3b. Resource Attributes: (List attributes and codes) AH4: trash scatter

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.) See Continuation Sheet for additional P5a and b.



P5b. Description of Photo View to west

*P6. Date Constructed/Age and Sources:

Historic Prehistoric Both

*P7. Owner and Address:

City of Los Angeles
 300 Mandich Street
 Bishop, CA 93514

*P8. Recorded by: (Name, affiliation, and address)

Shannon L. Loftus MAHP/RPA
 For: ACE Environmental, LLC
 9976 Peak Lookout Street
 Las Vegas, NV 89178

*P9. Date Recorded: 8/18/2011

*P10. Survey Type: Inventory

*P11. Report Citation: Loftus, Shannon L. for ACE Environmental, LLC. Cultural Resource Records Search and Site Visit: Vista Towers Site: Crowley Lake, Off Hilton Pack Station Road, Mammoth Lakes, Mono County, CA 93546

*Attachments: NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List):

DPR 523A (1/95)

*Required information



Figure 2. Aerial graphic depicting Project Area, and survey coverage (red overlay).



Photo 1. Crowley Lake 2-1, crushed metal can and clear glass fragments.

Trans-Sierran Archaeological Research

615 E. Inyo St., P.O. Box 840, Lone Pine, California 93545 520-979-9114

September 27, 2011

Scott Burns
Mono County Community Development Department
Old Mammoth Road
Mammoth Lakes, CA 93546

RE: Cultural Resource Records Search and Site Survey Revised, Vista Towers Site, Crowley Lake, Off Hilton Pack Station Road, September 12, 2011, prepared by Ace Environmental, LLC.

Dear Mr. Burns:

At your request I have reviewed the subject report, which describes archaeological work completed to determine the effects of a proposed telecommunications facility at Crowley Lake. The author is to be commended for a thorough and professional job.

However, the three flakes described and recorded as Crowley 1 do not, in fact, meet the archaeological site definition criteria established for flake scatters in Mono and Inyo Counties. Because of the heavily-used high-quality obsidian sources in the area, obsidian debitage is very common throughout the region. To allow researchers and planners to deal with this abundance and derive meaningful site boundaries, the Eastern Information Center of the California Historic Resources Inventory System has set a minimum density for flake scatters at 15 items per 10 by 10 meter area. Three flakes in an area measuring 175 by 70 ft would be considered individual isolates, rather than sites, and therefore would not qualify as a significant historic resource under the California Environmental Quality Act (CEQA).

In my professional opinion, no further archaeological work should be required for the Vista Towers Crowley Lake project. If you have any further questions or comments, please feel free to call me at 520-979-9114.

Sincerely,
Mary M. Farrell
Principal Archaeologist