

Master Response 1F

California Condor Collisions with Powerlines and Structures

Table MR1F-1. Comments Addressed in Master Response 1F

Comment	Commenter
1293-26	Clendenen, David A., Janet A. Hamber, Allen Mee, Vicky J. Meretsky, Anthony Prieto, Fred C. Sibley, Dr. Noel F.R. Snyder, William D. Toone
1293-41	Clendenen, David A., Janet A. Hamber, Allen Mee, Vicky J. Meretsky, Anthony Prieto, Fred C. Sibley, Dr. Noel F.R. Snyder, William D. Toone
05-4	Defenders of Wildlife, Pamela Flick
05-5	Defenders of Wildlife, Pamela Flick
05-21	Defenders of Wildlife, Pamela Flick

1F.1 Summary of Substantive Comments

The following summarizes the substantive comments received on the Draft EIS and Draft TU MSHCP related to California condor collisions with powerlines and structures. Table MR1F-1 provides a list of the commenters and a reference to the individual comment, as summarized below. The parenthetical reference after each summary bullet indicates where a response to that comment is provided.

- Powerline-related condor fatalities have been documented. (Response provided in Section 1F.2.1, Powerline Fatalities.)
- Development in the TMV Planning Area, including aboveground utilities, would degrade habitat on Tejon Ranch and create negative interactions with human activities such that the ranch would not be viable for the California condor, including as a result of collisions with overhead objects and wires. (Response provided in Section 1F.2.2, Effects of Objects and Wires on Condor Habitat and Viability.)
- Mitigation measures such as restrictions on aboveground towers or powerlines are either existing practices or measures to minimize effects of the TU MSHCP and, as such, cannot be invoked to conclude that the mitigation program would provide a net benefit to condors. The measures simply represent an effort to maintain the *status quo* for condors and, in some cases, would probably fail. (Response provided in Section 1F.2.3, Restrictions on Towers and Powerlines Considered as Mitigation.)
- Construction must be carried out in a manner to discourage perching by condors to avoid potential conflicts with telephone wires and to avoid interference with overflights and foraging areas. All powerlines in the TMV Planning Area should be placed underground and no new cell phone towers or antennae should be constructed. (Response provided in Section 1F.2.4, Powerline and Telephone Wire Interference with Overflights and Foraging Areas.)
- Installation of powerlines, telephone wires, cell phone towers or antennae would result in adverse modification and destruction of condor critical habitat. (Response provided in Section

1F.2.5, Effects of Powerlines, Telephone Wires, Cell Phone Towers, or Antennae on Critical Habitat.)

- If collisions with existing lines occur, “offending” wires must be placed underground for at least 1,000 feet on either side of the collision site, rather than installing bird diverters or other “questionable” devices. (Response provided in Section 1F.2.6, Placing Wires Underground Where Collisions Have Occurred.)
- No new wind turbines should be constructed in the TMV Planning Area. (Response provided in Section 1F.2.7, Construction of Wind Turbines in the TMV Planning Area.)
- The Tejon Ranch California Condor Conservation and Management Plan (Condor Plan) (Bloom 2008)) and the Draft TU MSHCP are contradictory regarding wind turbines (see p. 69 of the Condor Plan and p. 4-.73 of the Draft TU MSHCP). The Draft TU MSHCP states that installation of wind turbines would be prohibited on all residential and commercial lots in the Covered Lands, yet the preceding paragraph in the Draft TU MSHCP indicates that onsite, individual wind turbines may be constructed with review and approval by the Service as long as they do not pose a threat to condors. (Response provided in Section 1F.2.8, Contradictory Language of Draft TU MSHCP and the Tejon Ranch California Condor Conservation and Management Plan Regarding Wind Turbines.)

1F.2 Responses to Substantive Comments

1F.2.1 Powerline Fatalities

A commenter stated that powerline-related condor fatalities have been documented.

This comment is correct. Both the EIS and TU MSHCP note that collisions with powerlines and high-voltage transmission lines remain a threat to condors (Section 3.1.6, California Condor, in Volume 1 of this Supplemental Draft EIS and Chapter 4, California Condor, in the TU MSHCP). Section 4.1.3.2, Wildlife and Plant Species, in the subsection entitled Collisions with Power Lines and Towers, in this Supplemental Draft EIS, and Section 4.2.2.2, Take Assessment, of the TU MSHCP provide a discussion of this issue in relation to proposed development in the TMV Planning Area. These sections note that any aboveground transmission lines, or vertical communication structures installed as a result of development in the TMV Planning Area, could result in collisions while condors are attempting to land or during flight. This potential effect would be increased if such lines or towers are located along prominent ridgelines.

In recognition of the threat posed by above ground powerlines and towers, the TU MSHCP includes restrictions on the relocation and construction of new transmission lines and associated towers. Specifically, within the TMV Planning Area, Tejon Ranchcorp (TRC) would be allowed to relocate the following within 1,000 feet of their existing alignment: (1) an above ground transmission line within TMV Specific Plan Area 1 and 5; and (2) an above ground transmission line near the I-5/Lebec Road interchange. In addition, TRC may temporarily relocate an existing aboveground transmission line that would run east from I-5, just north of Castac Lake, and which would be undergrounded within the TMV Planning Area after construction is complete, as well as several smaller lines in the TMV Planning Area Development Envelope during construction. Relocation of transmission or distribution lines or relocation of any other existing lines under the TU MSHCP would be prohibited unless reviewed and approved by the Service (see Table 2-3 in Chapter 2, Proposed TU MSHCP and Alternatives, in Volume I of this Supplemental Draft EIS for additional detail on these restrictions).

The construction of new aboveground high-voltage towers and transmission lines would be prohibited under the TU MSHCP, both within the TMV Planning Area and elsewhere in the Covered Lands. New distribution lines for the TMV Project would be underground. The same prohibitions would apply elsewhere in the Covered Lands, with the exception of distribution lines to support ranch uses at historical levels. In areas where such lines cannot be located underground, they would be located in areas that would minimize the threat to Covered Species, including the threat of collision, with technical assistance from the Service on the identification of such locations (e.g., canyon bottoms). Third-party utilities, which TRC does not control, would be required to obtain their own Endangered Species Act (ESA) coverage should a transmission project be proposed in the future. The TU MSHCP would also require the installation of anti-perching devices on transmission towers to minimize the potential for injury or harm to condors. Additional measures to minimize the potential for condor collisions with various types of above ground communication towers would include approval by the Service of the design and location of any such towers, requirements that any approved towers be self-supporting (i.e., no guide wires), that potential perch surfaces be designed with anti-perching devices, and height and location restrictions for smaller communication structures not intended for emergency communication (See Table 2-3 in Chapter 2, Proposed TU MSHCP and Alternatives, in Volume I of this Supplemental Draft EIS for additional detail on these restrictions).

1F.2.2 Effects of Objects and Wires on Condor Habitat and Viability

A commenter indicated that development in the TMV Planning Area would degrade habitat on Tejon Ranch such that it would not be viable for the California condor. The comment based this statement on the absence of the original condor population from urban and suburban areas due to negative interactions with humans, including collisions with overhead objects and wires, but also disturbance at feeding sites, limited food sources, microtrash ingestion, and environmental pollutants.

The Service agrees that historically, condors likely avoided populated areas because of disturbance and limited food sources associated with human developments, as well as the other potential threats discussed in the comment. Please see Master Response 1D, California Condor Microtrash and Lead Ingestion, Master Response 1H, California Condor Supplemental Feeding, Master Response 1E, California Condor Loss of Foraging Habitat, and Section 4.1.3.2, Wildlife and Plant Species, in the subsection entitled California Condor, in Volume I of this Supplemental Draft EIS with respect to analysis on those issues.

With regard to overhead objects and wires, the Service agrees that collisions with power lines remain a threat to condors, as described above, in Section 3.1.6, California Condor, in Volume I of this Supplemental Draft EIS, and in Chapter 4, California Condor, in the TU MSHCP. Section 4.1.3.2, Wildlife and Plant Species, in the subsection entitled Collisions with Power Lines and Towers, in this Supplemental Draft EIS and Section 4.2.2.2, Take Assessment, Collisions with Powerlines and/or Artificial Towers/Structures, in the TU MSHCP, discuss the potential effects of these features on condors. As discussed above, under 1F.2.1, Powerline Fatalities, above, power line construction would be restricted.

1F.2.3 Restrictions on Towers and Powerlines Considered as Mitigation

A commenter stated that many of the mitigation measures proposed in the Draft TU MSHCP regarding restrictions on aboveground towers or power lines are either existing practices or measures to minimize new effects associated with the proposed action and, therefore, cannot be invoked to imply that the mitigation measures would provide a net benefit to condors. The comment suggested that the mitigation measures simply represent an effort to maintain the status quo for condors and, in some cases, would probably fail.

The commenter is correct in stating that restrictions on towers or aboveground powerlines to reduce development-related effects are measures to minimize the potential new effects associated with the Covered Activities in the TU MSHCP. The Service agrees that these measures do not represent a net benefit to condors. However, these measures are considered the best available measures to avoid and minimize bird collision risk with vertical structures such as communication towers and powerlines. As described in Section 2.2.2.5, Adaptive Management, in Volume I of this Supplemental EIS, the TU MSHCP would also include adaptive management measures in the event that condors do collide with or land on artificial structures on the Covered Lands. Under those circumstances, TRC would work with the Service to assess options for reducing the incidence of collisions, which could include revisions to the guidelines regarding location of antennas and towers, as set forth in the TU MSHCP, Section 4.6, Adaptive Management.

1F.2.4 Powerline and Telephone Wire Interference with Overflights and Foraging Areas

A commenter stated that, due to potential for conflicts with telephone wires (e.g., harassment), construction must be carried out in a manner to discourage perching by condors such that these activities do not interfere with overflights and foraging areas. The commenter notes particular concern with powerlines and telephone wires, and recommends that all powerlines in the TMV Planning Area be placed underground, and that no new cell phone towers or antennae be constructed.

As described above (Section 1F.2.1, Powerline Fatalities) and summarized in Table 2-3 in Chapter 2, Proposed TU MSHCP and Alternatives, in Volume I of this Supplemental Draft EIS, the TU MSHCP would allow for permanent relocation of two existing lines (i.e., in the TMV Planning Area and near the I-5/Lebec Road interchange) within 1,000 feet of their current locations; temporary relocation of a third line during construction, which would ultimately be placed underground; and temporary relocation of several other smaller lines during construction in the TMV Planning Area. No new aboveground high-voltage towers, transmission lines, or power lines would be built in the TMV Planning Area under the TU MSHCP. Third-party utilities, which TRC does not control, would be required to obtain their own ESA coverage should a transmission project be proposed in the future. The same prohibitions would apply elsewhere in the Covered Lands, with the exception of distribution lines to support ranch uses at historical levels I. In areas where such lines cannot be located underground, they would be located in areas that would minimize threats to Covered Species (e.g., canyon bottoms), like the threat of collision, with technical assistance from the Service on the identification of such locations. TRC has worked with Kern County and the provider to limit the number of towers necessary to provide adequate emergency radio communication coverage in the TMV Planning Area to meet public safety requirements and reduce the potential for condor collisions. Specifically, two towers would be placed at two separate locations in the TMV Specific Plan Development Envelope: one approximately 68 feet in height (including antennae), and the other approximately 65 feet in height (including antennae) (Table 2-3). Smaller vertical

communication structures would also be located within the TMV Planning Area or Lebec/Existing Headquarters Area Development Envelopes (e.g., cell phone or radio antennas), provided they meet design and height restrictions identified in the TU MSHCP, and that TRC confer with the Service regarding the placement of cell towers, antennas or other similar structures during the preparation of tentative tract maps and corresponding grading plans (Table 2-3). In addition to imposing height and design restrictions on these smaller vertical communication structures, Section 4.4.1.4, Collisions with Powerlines and Utility Structures, in the TU MSHCP and Section 2.2.2.3, Conservation Measures, in this Supplemental Draft EIS, require the installation of antiperching devices on any tower surfaces on which condors could perch, and require that towers be self-supporting (no guide wires).

Please see Master Response 1G, California Condor Overflight Habitat Connectivity, regarding additional comments on this topic.

1F.2.5 Effects of Powerlines, Telephone Wires, Cell Phone Towers, or Antennae on Critical Habitat

A commenter disagreed with the conclusion of the Draft TU MSHCP that construction of new powerlines and telephone wires associated with Commercial and Residential Development Covered Activities would not result in destruction or adverse modification of California condor critical habitat.

Section 4.4.1.4, Collisions with Powerlines and Utility Structures, in the TU MSHCP, and Section 2.2.2.3, Conservation Measures, in Volume I of this Supplemental Draft EIS, include measures to minimize potential effects on the condor associated with powerlines and vertical communication structures, such as emergency communication towers, cell phone towers, and radio antenna. The commenter's disagreement with the effectiveness of these measures is noted. As discussed above, no new aboveground high voltage towers and transmission or distribution lines, or similar aboveground electrical transmission structures and lines, would be built in the TMV Planning Area or in the other Covered Lands under this ITP. Smaller vertical communication structures may be constructed with Service review and approval, as described above. Two emergency communication towers (68 feet and 65 feet high) are proposed to be located in the TMV Planning Area, within critical habitat. These towers would be self-supporting (no guide wires) and would be fitted with anti-perching devices to minimize adverse effects to condors.

The restrictions on construction of new aboveground towers and transmission lines, in combination with design restrictions (no guide wires) on the two proposed emergency communication towers, and the Service's review and approval of the design and location of smaller vertical communications towers and distribution lines (see discussion above), would minimize the effects of these utility structures on critical habitat. No new towers would occur without Service approval. The Service will render a formal determination of the effects of the TU MSHCP on condor critical habitat, including the effects of towers and similar structures proposed under the plan, as part of the formal Federal Endangered Species Act (ESA) Section 7 consultation on the incidental take permit (ITP) and TU MSHCP. Please see Master Response 1B, California Condor Critical Habitat, and Section 4.1, Biological Resources, in Volume I of this Supplemental EIS with respect to the overall effects of the TU MSHCP on critical habitat on Tejon Ranch.

1F.2.6 Placing Wires Underground where Collisions Have Occurred

A commenter stated that if collisions occur with existing transmission lines and telephone wires, “offending” wires must be placed underground for at least 1,000 feet on either side of the collision site, rather than installing bird diverters or other “questionable” devices.

The Service agrees with the commenter that bird flight diverters are not always reliable in avoiding collisions between birds, including California condors, and powerlines. There are high-voltage transmission lines controlled by TRC located on the Covered Lands. Under the TU MSHCP, TRC would relocate two existing transmission lines approximately 1,000 feet from their existing locations and temporarily relocate during construction and eventually place a third line underground. To date, there have been no collisions between condors and the aforementioned transmission lines, or any other powerlines, on Tejon Ranch, and no new above ground transmission lines would be installed in the Covered Lands (or elsewhere on the ranch). Condor biologists with the Service visited the locations of the existing transmission lines and the proposed relocation sites and determined that the relocated lines would pose little collision risk to condors (and no greater risk than posed by the existing lines) because of the relocated sitings and the relatively low elevation of the lines.

1F.2.7 Construction of Wind Turbines in the TMV Planning Area

A commenter stated that no new wind turbines should be constructed in the TMV Planning Area.

Section 4.4.1.4, Collisions with Powerlines and Utility Structures, of the TU MSHCP states that “No wind farms will be constructed anywhere on the Covered Lands...”, which includes the TMV Planning Area. This prohibition also extends to the adjacent Gorman Ranch where TRC would exercise its rights to prohibit construction of any wind farm or similar development through its restrictive covenants and negative easement over Gorman Ranch in perpetuity. The Covered Activities in the TU MSHCP, however, would allow for construction of individual wind turbines that have the primary purpose of meeting electrical generation needs for individual sites, but only following review and approval by the Service, and based on a determination that the device is of a design and in a location that would not pose a threat to condors or other Covered Species. Emerging technologies for turbine design should help to avoid and minimize condor and other raptor collisions. For example, vertical blade designs within screened cylinders may be appropriate, but open blade designs likely to cause condor fatality in the event of a collision are not appropriate. Given the benefits associated with renewable energy production, and the rapid advance of feasible renewable technologies at smaller scales and without the open blade tower design of older, more familiar wind farm technologies, the Service does not believe it is appropriate to forever preclude use on the Covered Lands of any wind-based renewable energy technology, particularly if it is designed to solely provide for on-site uses.

1F.2.8 Contradictory Language of Draft TU MSHCP and the Tejon Ranch California Condor Conservation and Management Plan Regarding Wind Turbines

A commenter stated that the language in the Condor Plan (Bloom 2008; originally appended to Draft TU MSHCP as Appendix C) is contradictory regarding wind turbines. The Condor Plan, at page 59, states that “[b]ecause of the potential for raptors, including the California condor, to collide with wind turbines, the installation of such turbines will be prohibited on all residential and commercial lots in Covered Lands.” The preceding paragraph on page 69 states that “individual wind turbines, which have the primary purpose to serve electrical generation needs on site, may be constructed, if after review and approval by the FWS, such turbines are of a design and in a location that would not pose a threat to condors.”

Section 4.4.1.4, Collisions with Powerlines and Utility Structures, of the TU MSHCP was amended to clarify the language regarding, and distinguish between, the installation of individual wind turbines, as described above, and the prohibition on wind farms on the Covered Lands,

Additionally, the prohibition on wind farms shall be maintained on the Covered Lands in perpetuity, except that individual wind turbine devices, which have the primary purpose to serve electrical generation needs on site, may be constructed following review and approval by the USFWS based on the USFWS determination that the device is of a design and in a location that would not pose a threat to condors (e.g., vertical blade designs within screened cylinders may be appropriate, but open blade designs likely to cause condor fatality in the event of a collision are not appropriate).

The TU MSHCP would allow for individual wind turbines contingent upon review and approval by the Service. The primary purpose of the individual wind turbine would be to provide alternative “green” energy generation in the Covered Lands, and the Service believes that the requirement for review and approval would serve to avoid and minimize effects on the California condor from these individual wind turbines.

Also note, the Condor Plan is no longer appended to the TU MSHCP (it was Appendix C in the original Draft TU MSHCP).