

Master Response 1D

California Condor Microtrash and Lead Ingestion

Table MR1D-1. Comments Addressed in Master Response 1D

Comment	Commenter
I73-4	Balbona, G.
I293-26	Clendenen, et al.
I293-30	Clendenen, et al.
I293-41	Clendenen, et al.
I626-7	Hamber, Robert
I626-8	Hamber, Robert
I627-47	Hamber, Robert
I948-20	Manning, Jeffrey
I1054-4	Moore, Stan
I1163-3	Palmer, Bruce
04-122	Center for Biological Diversity (Keats, Adam)
04-123	Center for Biological Diversity (Keats, Adam)
05-6	Defenders of Wildlife (Flick, Pamela)

1D.1 Summary of Substantive Comments

The following summarizes the substantive comments received on the Draft EIS and Draft TU MSHCP related to potential effects associated with the ingestion of microtrash and lead by California condors in the Covered Lands. Table MR1D-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.

- There is a potential for lead poisoning on Tejon Ranch and condors need areas free from lead-based hunting operations. (Response provided in Section 1D.2.1, Potential for Lead Poisoning of Condors on Tejon Ranch.)
- The potential for condors to ingest microtrash and lead-contaminated gut piles is expected to increase on Tejon Ranch as a result of proposed development, habituation to humans and human activity areas, and increased human recreation, and these factors all pose a serious threat to condors. (Response provided in Section 1D.2.2, Ingestion of Microtrash and Lead-Contaminated Gut Piles as a Result of Increased Human Population on Tejon Ranch.)
- The proposed supplemental feeding program can result in unnatural foraging behaviors in condors and thus increase the potential for ingestion of microtrash. (Response provided in Section 1D.2.3, Supplemental Feeding and the Potential for Increased Ingestion of Microtrash.)
- Mitigation measures to control microtrash are existing practices, would not provide a net benefit to condors, and would probably fail to maintain existing conditions. Suggested measures to control microtrash include fitting trash receptacles with animal- and weatherproof lids, regular cleanup during and after filming activities, and additional signage indicating sanctions

for microtrash violations. (Response provided in Section 1D.2.4, Legitimacy of Proposed Mitigation and Suggested Additional Measures.)

1D.2 Responses to Substantive Comments

1D.2.1 Potential for Lead Poisoning of Condors on Tejon Ranch

Commenters expressed concern regarding the potential for lead poisoning of condors on Tejon Ranch as a result of ingestion of lead-contaminated gut piles and noted that condors need remote areas free from lead-based hunting operations to survive.

The Service is aware that the threat of lead poisoning and the need for lead-free sources of food continues to be the most significant challenge to the recovery of the condor. This Supplemental EIS (Section 3.1, Biological Resources) and the TU MSHCP (Section 4, California Condor) acknowledge the same. The American Ornithologists' Union and California Audubon also recognized the overall threat of lead poisoning to condor recovery in Status of the California Condor and Efforts to Achieve its Recovery (2008) as summarized below:

We concur with nearly all of those involved in the condor program with whom we spoke that the species cannot be recovered until the lead threat is eliminated. ...Similarly, the efficacy of area-specific requirements for nonlead ammunition, such as the local regulations on the Tejon Ranch or even the state regulations in California, remain extremely uncertain. We therefore conclude that total replacement of lead with nontoxic ammunition, at least within the potential range of the condor, and preferably nationally, is necessary for condor recovery. Without such action the reestablishment of viable wild condor populations is improbable (American Ornithologists' Union 2008).

As described in this Supplemental Draft EIS and the TU MSHCP, the applicant (Tejon Ranchcorp [TRC]) imposed a ranchwide ban on the use of lead ammunition on its property, effective January 1, 2008. The ban will remain in effect in perpetuity, surviving both the expiration (after 50 years) and any early termination of an incidental take permit (ITP) that for the TU MSHCP, and covers the full 270,000 acres of the ranch. The ranchwide lead ammunition ban applies to all hunters using the ranch, including those with hunting memberships, group hunts, and guided hunts. It also applies to TRC employees or third parties who are engaged in any animal damage control or nuisance abatement activities on the ranch. Please refer to Master Response 1I, California Condor Lead Ban, for further information on the ranchwide lead ammunition ban.

In addition, California enacted the Ridley-Tree Condor Preservation Act (Assembly Bill 821), effective July 1, 2008, which bans lead ammunition throughout the entire range of the California condor in the state. Consequently, it is illegal to use lead-based ammunition for hunting in any area, remote or otherwise, that is in the designated home range of the condor in California.

1D.2.2 Ingestion of Microtrash and Lead-Contaminated Gut Piles as a Result of Increased Human Population on Tejon Ranch

Commenters stated that the potential for condors to ingest microtrash and lead-contaminated gut piles would increase on Tejon Ranch as a result of habituation of condors to humans and human activity areas associated with the increase in human population and recreation on the ranch under the Proposed TU MSHCP Alternative.

Habituation and attraction to humans and associated development have been a concern of the condor program since the first captive-reared condor releases in 1992. The natural curiosity of condors and the propensity for “tame” birds to become habituated to humans and human activity areas is well-documented. For example:

The inquisitiveness of condors makes tame birds unusually prone to interacting with humans, and because of their large size and gregariousness, such interaction is inevitably problematic (American Ornithologists’ Union 2008, p. 19).

Condors have historically been known to fly over residential developments, such as Pine Mountain Club, Lebec, Frazier Park, and Stallion Springs in the Tehachapi Mountains. Condors are naturally curious and often fly near human activity areas, such as the visitor’s center and campgrounds in the Grand Canyon National Park. Please refer to the Master Response 1A, California Condor Data and Habitat Use; Master Response 1B, California Condor Critical Habitat; Master Response 1C, California Condor Take and Habituation; and Master Response 1E, California Condor Loss of Foraging Habitat, for additional information regarding condor use of these and other areas.

Hunting with the use of lead-based ammunition and recreational activities that result in the deposition of microtrash in areas accessible by condors are considered threats to the condor, and are specifically addressed in the Section 3.1, Biological Resources, of this Supplemental Draft EIS, as well as Section 4.1.4, Reasons for Decline and Ongoing Threats, in the TU MSHCP. Similarly, the EIS and TU MSHCP identify potential “habituation” risks from condor–human interaction. Proposed measures to reduce those risks are described in the effects analysis for the Proposed TU MSHCP Alternative in Section 4.1, Biological Resources, of the EIS, as well as Section 4.4, Avoidance, Minimization, and Mitigation Measures, in the TU MSHCP. Avoidance, minimization, and mitigation measures associated with potential habituation effects under the Proposed TU MSHCP Alternative include:

- Avoiding and minimizing exposure of condors to microtrash by:
 - Creation and dissemination of a condor education curriculum for training key personnel of the ranch and construction/work crews, film crews, residents and guests;
 - Posting signage at trail heads or entrances to open space areas, and distributing information at onsite nature centers or other public areas;
 - Enforcement of conservation easements, covenants, conditions and restrictions (CC&Rs) by TMV Project land managers;
 - Assignment of a Service-approved biologist or designated staff person to accompany film crews to enforce rules regarding microtrash;
 - Use of animal and weatherproof lids on all trash receptacles; and
 - Regular maintenance efforts to eliminate microtrash.
- Avoiding and minimizing disturbance of condors by:
 - Creation and distribution of educational materials, as described above;
 - Enforcement of CC&Rs related to condor protection;
 - Empowerment of TRC or Tejon Mountain Village, LLC to require construction workers, filming crews, TRC staff, residents, and guests to cease behaviors that constitute an attractive nuisance or present a danger to condors; and
 - Regulation of recreational activities that could disturb feeding or roosting condors, including but not limited to temporarily closing recreational trails that occur near a carcass on which condors are feeding, moving planned recreational events from locations adjacent to

temporary condor feeding or roosting areas, and monitoring recreational activities that would occur near temporary feeding or roosting areas, as determined by biologist Service-approved biologist in coordination with the Service.

Ongoing enforcement of the ranchwide lead ammunition ban is a measure that contributes to the conservation and recovery of the condor (Draft TU MSHCP, p. 4-87).

1D.2.3 Supplemental Feeding and the Potential for Increased Ingestion of Microtrash

Several commenters stated the proposed supplemental feeding program for condors on Tejon Ranch could foster unnatural foraging behaviors that could result in increased potential for ingestion of microtrash.

As discussed further in Master Response 1H, California Condor Supplemental Feeding, TRC would provide funding for supplemental feeding on the ranch under the TU MSHCP only if deemed necessary and appropriate by the Service. As detailed in Master Response 1H, California Condor Supplemental Feeding, the Service currently uses supplemental feeding primarily to assist in trapping condors for medical testing and for transmitter upkeep, and to provide food for recently released condors. Under the TU MSHCP, TRC would provide funding for supplemental feeding on the ranch only as determined appropriate by the Service. After the 50-year term of the ITP, supplemental feeding would be implemented at the discretion of the Service.

With respect to commenters' statements that establishment of feeding stations can result in unnatural foraging behavior and can increase the potential for ingestion of microtrash, the Service agrees that there are inherent problems associated with perpetual reliance by condors on subsidized food. Supplemental feeding is not intended as a permanent part of the recovery program. As discussed in Master Response 1H, California Condor Supplemental Feeding, and noted above, the Service currently uses supplemental feeding only to facilitate trapping condors during biannual health checks and to maintain radio and geographic positioning system (GPS) transmitters, and as a food source for recently released, captive-bred juvenile condors that do not have parents to feed them. The natural foraging behavior condors are exhibiting precludes the ability to manage them away from all other potential food sources, including lead-contaminated carcasses, with supplemental feeding. The Service has no reason to believe that the limited, temporary use of supplemental feeding is correlated with increased exposure to microtrash.

The theory that food subsidies increased microtrash ingestion is based on the argument that condors receiving subsidized food become "lazy" because they do not need to more actively forage and are more likely to ingest pieces of trash (Mee and Snyder 2007). This conjecture has not yet been proven and appears to be contradicted in part by evidence from the Arizona and central California coast release programs, both of which provide food subsidies for trapping and recently released condors in multiple locations with varied feeding schedules and some variation in carcass types. Condors have foraged over a several-hundred-mile radius from the feeding sites in these programs and are not experiencing microtrash ingestion problems to the same degree as the southern California subpopulation did during the period when Hopper Mountain National Wildlife Refuge was the only feeding station.

1D.2.4 Legitimacy of Proposed Mitigation and Suggested Additional Measures

Commenters stated that several mitigation measures prescribed in the Draft TU MSHCP to control microtrash are existing practices, would not provide a net benefit to condors, and would probably fail to maintain existing conditions. Others suggested various measures to control microtrash, including fitting trash receptacles with animal- and weather-proof lids and regular cleanup both during and after filming activities. One commenter recommended additional signage indicating that litterers would be fined.

Section 4.1, Biological Resources, in the EIS and Chapter 4, California Condor, in the TU MSHCP address the potential increase in microtrash associated with proposed development on Tejon Ranch, and reference a number of measures to avoid and/or minimize the potential of condors to ingest microtrash. These measures are summarized above in Section 1D.2.2, Ingestion of Microtrash and Lead-Contaminated Gut Piles as a Result of Increased Human Population on Tejon Ranch. Mitigation measures to control microtrash associated with proposed development on Tejon Ranch are not existing practices and would be new measures to reduce the potential adverse effects of the Covered Activities on the condor. These measures contribute to the California Condor Recovery Plan goals of implementing California condor information and education programs and minimizing California condor mortality factors. These measures also would work in combination with other avoidance, minimization, and mitigation measures and conservation and management measures under the proposed TU MSHCP, including the preservation of large areas of prime foraging and roosting habitat on the ranch, to ensure that habitat and conservation values for the condor on the ranch are maintained in perpetuity.

The comment that the mitigation measures would probably fail to maintain existing conditions is not substantiated by any evidence provided by the commenters. The Service would ensure implementation of the mitigation measures in the TU MSHCP through enforceable permit conditions in the ITP.

The recommendations regarding additional measures in the comment are appreciated and the text in the Draft TU MSHCP, Section 4.4.1.1, Exposure to Microtrash, has been revised to respond to these comments. Note that a requirement that all trash receptacles be fitted with animal- and weather-proof lids is already included in the measures (Draft TU MSHCP Section 4.4.1.1, subsection (2)). Section 4.4.1.1 has been revised as follows:

1. TRC or an included entity will prepare condor educational materials and implement a training program such as printed brochures or other media that will include information concerning the life history of the California condor, where condors potentially occur within the TMV Planning Area, prohibited behaviors related to condors such as the pursuit, capture, and harassment of individual condors, and other potential direct interaction with condors. The information shall also identify types of microtrash that could be ingested by condors and describe measures to eliminate microtrash at and near all construction sites, recreational areas, outdoor filming projects, roads, and back-country areas where human presence occurs. The education program will include training of key personnel at TRC, appropriate signage at trailheads or entrances to open space areas, and dissemination of pertinent information at onsite nature centers and other public areas. The educational materials will be disseminated to film crews, TMV Project construction and work crews, residents, guests and visitors, particularly those engaging in recreational activities that could put them in close proximity to condors. Project land managers will be empowered to take action to prevent any such activity that would pose a threat to condors. This measure will be included in implementation documentation as appropriate under

- the Memorandum of Permit (MOP) (e.g., CC&Rs for commercial and residential development and contracts with third party filming entities).
2. The following condor protection measures shall be implemented and documented as appropriate under the MOP (e.g., CC&Rs for commercial and residential development and contracts with third party filming entities):
 - a. Master Developer's Construction Crews—All construction contracts let by the Master Developer shall include provisions requiring the general and subcontractors to provide construction workers with educational materials describing condor protection measures.
 - b. Residential or Commercial Construction Crews—All land sale contracts issued by the Master Developer shall include provisions requiring future residential and commercial property owners to provide construction workers with educational materials describing condor protection measures.
 - c. Film Crews—All TRC film crew contracts shall include provisions requiring the film companies to provide crew members with educational materials describing condor protection measures.
 - d. Residents—The Master CC&Rs shall include requirements for the property manager to distribute educational material describing condor protection measures on an annual basis. The CC&Rs shall also include enforcement language related to condor protection.
 - e. Resort Guests—The CC&Rs included in the resort, and any land sale contract or management agreement shall include provisions requiring the property management company to provide resort guests with educational materials describing condor protection measures.
 - f. Ranch Visitors—All Entry Permits for back-country areas will include educational material describing condor protection measures.
 3. TRC or an included entity will ensure that routine community maintenance activities include regular efforts to eliminate microtrash at and near all work sites, recreational events, filming projects, roads, and back-country areas where human presence occurs. All trash receptacles will be fitted with animal and weather-resistant lids, will be regularly emptied, and will regularly be inspected by the Service-approved Tejon Staff Biologist. This measure will be included in implementation documentation as appropriate under the MOP (e.g., CC&Rs for commercial and residential development and contracts with third party filming entities). The CC&Rs will include provisions authorizing the Master and Commercial Maintenance Associations, as relevant, to promulgate from time to time rules and regulations recommended by the Service-approved Tejon Staff Biologist to address microtrash and trash receptacles and to enforce such rules and regulations, which shall be consistent with and no less stringent than the Conservation Measures.
 4. The Service-approved Tejon Staff Biologist, or designated TRC employees or consultants, will be assigned to all film crews to enforce rules regarding discarding of microtrash items and will require a thorough daily clean-up by the filming entity during and immediately upon completion of all film shoots to eliminate any microtrash that may have accumulated.

The exact wording of signage has not been developed, but the commenter's recommendations are noted for the record and will be considered in the design of signage to ensure that the mitigation measures are effectively implemented and enforced.