

# Master Response 1H

## California Condor Supplemental Feeding

---

**Table MR1H-1. Comments Addressed in Master Response 1H**

Comment	Commenter
04-115	Center for Biological Diversity, Adam Keats
04-115A	Center for Biological Diversity, Adam Keats
04-116	Center for Biological Diversity, Adam Keats
04-118	Center for Biological Diversity, Adam Keats
04-119	Center for Biological Diversity, Adam Keats
04-120	Center for Biological Diversity, Adam Keats
04-121	Center for Biological Diversity, Adam Keats
04-122	Center for Biological Diversity, Adam Keats
04-123	Center for Biological Diversity, Adam Keats
05-10	Defenders of Wildlife, Pamela Flick
1293-30	Clendenen, David A., Janet A. Hamber, Allen Mee, Vicky J. Meretsky, Anthony Prieto, Fred C. Sibley, Dr. Noel F.R. Snyder, William D. Toone
1293-31	Clendenen, David A., Janet A. Hamber, Allen Mee, Vicky J. Meretsky, Anthony Prieto, Fred C. Sibley, Dr. Noel F.R. Snyder, William D. Toone
1293-32	Clendenen, David A., Janet A. Hamber, Allen Mee, Vicky J. Meretsky, Anthony Prieto, Fred C. Sibley, Dr. Noel F.R. Snyder, William D. Toone
1293-33	Clendenen, David A., Janet A. Hamber, Allen Mee, Vicky J. Meretsky, Anthony Prieto, Fred C. Sibley, Dr. Noel F.R. Snyder, William D. Toone
1293-39	Clendenen, David A., Janet A. Hamber, Allen Mee, Vicky J. Meretsky, Anthony Prieto, Fred C. Sibley, Dr. Noel F.R. Snyder, William D. Toone
1948-21	Manning, Jeffrey A
1948-22	Manning, Jeffrey A
1948-23	Manning, Jeffrey A
1948-24	Manning, Jeffrey A
I1163-6	Palmer, Bruce

## 1H.1 Summary of Substantive Comments

The following summarizes the substantive comments received on the Draft EIS and Draft TU MSHCP related to supplemental feeding of California condors. Table MR1H-1 provides a list of the commenters and a reference to the individual comments, as summarized below. The parenthetical reference after each summary bullet indicates where a response to that comment is provided.

This response begins with an overview of the Service's approach to supplemental feeding. The overview discussion is followed by responses to the individual issues raised by commenters.

- Supplemental feeding is contrary to the California Condor Recovery Plan. (Response provided in Section 1H.2.2, Consistency with the California Condor Recovery Plan.)
- Supplemental feeding is not adequate mitigation, and it will reduce the likelihood of survival and recovery of the condor in the wild because it creates permanent dependence on artificial food sources and manipulates natural behavior. (Response provided in Section 1H.2.3, Supplemental Feeding as Mitigation in Support of Conservation and Recovery.)
- Supplemental feeding will result in take from harassment. (Response provided in Section 1H.2.4, Supplemental Feeding and Take from Harassment.)
- Supplemental feeding will result in take through greater microtrash ingestion. (Response provided in Section 1H.2.5, Supplemental Feeding and Microtrash Ingestion.)
- Supplemental feeding is made obsolete by the lead ban. (Response provided in Section 1H.2.6, Supplemental Feeding and Lead Ingestion.)

## 1H.2 Responses to Substantive Comments

### 1H.2.1 Overview

Currently, and as explained below, the Service provides supplemental feeding primarily to support two major condor recovery actions: the annual release of captive reared juveniles, and biannual trapping of the free-flying population to monitor for lead exposures and for transmitter upkeep.

Each fall, a cohort of juvenile condors that was raised in captivity is released into the wild as a means to grow the wild population and mitigate for deaths that have occurred the previous year. Positive population growth in the wild populations currently depends on captive releases. Newly released condors need extra care to increase the likelihood of their survivorship. Unlike condors that have newly fledged from wild nests, which rely on their parents to provide them with food for six to 18 months after fledging, captive released juvenile condors do not have parents to supply them with food. Instead, the Service uses supplemental feeding stations at release sites as a substitute for the food that young wild condors would receive from their parents prior to becoming independent. Newly released condors tend to remain dependent on these food subsidies for six to 18 months after being released, which requires year round food placements. However, multiple feeding sites are used randomly over an increasing area throughout the year to aid the young birds as they integrate into the wild population.

Twice a year the entire free-flying population of condors is trapped to monitor them for lead exposure, and to provide maintenance of their wing tags and very high frequency (VHF) or global positioning system (GPS) transmitters. Trapping is an essential part of condor recovery because it

allows for the treatment of condors exposed to lead, and allows the Service to maintain the ability to monitor the population as condors recolonize portions of their historic range. Trapping the wild population requires baiting walk-in traps with carrion. In order to trap the entire population, bait used for trapping is typically supplied over a two month period, twice per year. In southern California, trapping is conducted in June and July, and then again in November and December. As the wild population has expanded and become more self-reliant, trapping has become more challenging and the time it takes to trap all of the birds has increased. In the future, new trap sites in expanded portions of the condor's historic range may be necessary to trap the population successfully in a timely manner.

Although lead contaminated food continues to be a threat to condors, recent data indicate that supplemental feeding has not been shown to be an effective tool to facilitate the avoidance of lead poisoning in condors. Despite the regular availability of supplemental food, condors are foraging over hundreds of miles, throughout much of their historic range, and are finding their own food. As a result of this natural behavior, they continue to be exposed to carcasses contaminated with lead. Six condors have died from lead poisoning in 2011 (as of August 2011) (U.S. Fish and Wildlife Service 2011). It has become apparent that condors in the wild cannot be managed away from naturally occurring carrion, despite the presence of supplemental food. However, any lead-free carcasses condors they are able to consume, including supplemental carcasses provided by the condor recovery program, will continue to benefit individual condors and the recovering population, until lead contamination is no longer a threat.

Supplemental feeding is not expected to be permanent. However, under current and reasonably foreseeable future conditions, the Service anticipates that the use of supplemental feeding to facilitate trapping and to serve as a food source for recently released juveniles will continue and possibly expand prior to their discontinuation.

## 1H.2.2 Consistency with the California Condor Recovery Plan

A comment noted that although the California Condor Recovery Plan (Recovery Plan) (U.S. Fish and Wildlife Service 1996) recognizes that some condor populations may require supplemental feeding, the Recovery Plan does not anticipate that supplemental feeding will last indefinitely. Another comment acknowledged the current need for feeding stations, but cites Walters et al. (2008) for the need to reduce, if not eliminate, supplemental feeding stations where possible. Finally, a comment stated that supplemental feeding is a manipulation of the condor's natural behavior, including where birds forage, where they roost, what their diet is, how frequently they feed chicks, and their awareness of predators, and should not be a part of a long-term strategy for recovery of the species. Reliance on supplemental feeding creates an "outdoor zoo" population.

The Service is aware of the supplemental feeding discussion in the Recovery Plan, which acknowledges that even with the condor's downlisting to threatened status, supplemental feeding to augment natural food supplies and/or protect birds from exposure to contaminated carcasses may still be necessary. The Recovery Plan also indicates that supplemental feeding is not anticipated to last indefinitely; the Service agrees with the comments that encourage the need to reduce supplemental feeding where possible. The Service acknowledges the Recovery Plan statements and emphasizes that under the TU MSHCP, Tejon Ranchcorp (TRC) would provide funding for supplemental feeding on the ranch only as determined appropriate by the Service. As described in Section 1H.2.1, Overview, above, the Service currently uses supplemental feeding to trap condors to assess their health, particularly their exposure to lead, to repair or maintain global positioning system (GPS) tracking devices, and to temporarily provide food for recently released captive-bred juveniles, which, if hatched in the wild, would obtain such food from their parents. As discussed below, the Service has no plans for permanent supplemental feeding sites on Tejon Ranch, or plans to release condors on Tejon Ranch.

### 1H.2.3 Supplemental Feeding as Mitigation in Support of Conservation and Recovery

A comment stated that supplemental feeding stations are a core mitigation measure proposed by the TU MSHCP, that the measure would adversely modify critical habitat by replacing natural foraging grounds with artificial feeding stations, and that the measure would fail as mitigation for loss of habitat because it would:

- create a permanent dependence on artificial food sources,
- involve a manipulation of behavior,
- potentially result in greater microtrash ingestion, and
- mitigate a threat (lead poisoning) that would be obsolete through other measures (i.e., state ban on lead ammunition).

For these reasons, the comment asserts that the measure fails to minimize or mitigate the loss of habitat and in fact reduces the likelihood of survival and recovery of the condor in the wild. Another comment stated that the remaining open space areas adjacent to development would not be viable foraging habitat due to the cessation of hunting and grazing, resulting in condors becoming more dependent on supplemental feeding stations in the future. The comment also noted that the TU MSHCP fails to admit that the loss of foraging habitat from development on the Covered Lands would make condor natural food source availability more variable, and supplemental feeding stations more necessary, creating dependence on a permanent food source provided by humans. The comment also stated that the TU MSHCP fails to consider the effects on condors that would become reliant on artificial food sources after the 50-year incidental take permit (ITP) term when the supplemental feeding stations may close. Another comment stated that while the supplemental feeding program is important, it must be carefully monitored to ensure that there is no disturbance to natural condor foraging activities and that it does not exacerbate overflights of the TMV Planning Area. Finally, a comment noted that feeding stations, if not constructed and managed correctly, can attract other scavengers, cause increased predation risk, promote abnormal sociality among condors, cause increased flocking and therefore, decreased distribution.

The Service has determined that the loss of foraging habitat from development considered in the TU MSHCP would not significantly reduce condor food sources, as discussed in Master Response 1E, California Condor Loss of Foraging Habitat, and Section 4.1, Biological Resources, in Volume I of this Supplemental Draft EIS. In addition, hunting and ranching activities that provide the primary source of carrion for condors on the ranch would not cease, but continue to occur throughout all preserved open space areas on the ranch. Consequently, food source availability would remain consistent with what currently occurs on the ranch. As discussed previously, any supplemental feeding would be conducted by the Service as needed; it is not meant as a mitigation measure to offset the loss of foraging habitat that would occur as result of the development under the TU MSHCP. The Service agrees that permanent dependence on a human food source is undesirable, and the optional supplemental feeding measure would not serve to replace natural foraging habitat with permanent artificial feeding stations.

TRC would provide funding for supplemental feeding on the ranch only in coordination with, and at the direction of, the Service. While the Service is not contemplating future releases of condors on Tejon Ranch, it is possible the Service could determine that trapping condors on the ranch would be beneficial as the condor subpopulation in southern California continues to grow and expand their range. However, the Service anticipates any supplemental feeding stations operated for trapping purposes on Tejon Ranch would be operated only for short periods of time each year, and only if attempts to trap birds at existing sites were unsuccessful. To that end, TRC's proposed support of a

supplemental feeding program, included in the TU MSHCP, would aid in condor recovery to the extent that it would enable the Service to trap or release condors.

Thus, while the TU MSHCP lists supplemental feeding as a conservation measure (and not a mitigation measure), to be implemented only if and as directed by the Service based on best available science (which may continue to evolve over time, and thus be accommodated as part of the adaptive management program included in the revised TU MSHCP), to assist with the recovery program, the TU MSHCP has been clarified to eliminate provision of a permanent, frequent supplemental feeding program. As noted above, the Service anticipates that any supplemental feeding of condors on Tejon Ranch would be limited in scope and duration, and implemented at the sole discretion and direction of the Service for the purpose of trapping and releasing condors on the ranch. The purpose of supplemental feeding in relation to the lead ammunition ban is discussed in Section 1H.2.6, Supplemental Feeding and Lead Ingestion.

The supplemental feeding program measure is consistent with the Recovery Plan and would support recovery efforts, as discussed under Section 1H.2.2, Consistency with the California Condor Recovery Plan, above.

#### **1H.2.4 Supplemental Feeding and Take from Harassment**

A comment stated that disruption of the condor's behavior related to supplemental feeding stations constitutes "take" under Section 9 of the federal Endangered Species Act (ESA) due to harassment.

As discussed above, the use of supplemental feeding has long been a part of the Service's recovery program for the California condor. The commenter has provided no evidence, and the Service is not aware of any evidence, that short-term, supplemental feeding as contemplated by the Service creates a risk of injury to condors by annoying them to such an extent as to significantly disrupt normal behavioral patterns. The Service therefore rejects the suggestion that limited supplemental feeding of condors in conjunction with recovery program efforts results in take under the ESA.

#### **1H.2.5 Supplemental Feeding and Microtrash Ingestion**

A comment stated that the Draft TU MSHCP fails to identify the potential role of the supplemental feeding program in exposing condors to microtrash. The comment indicated that there is evidence of a relationship between feeding stations and microtrash and cites Mee and Snyder (2007), who suggest that condor use of feeding stations and an absence of natural foraging behavior provides them time to engage in nonessential activities and bring them into greater contact with humans and trash. The comment stated that the Draft TU MSHCP must address this relationship as a potential mortality factor and as a factor resulting in take of the species.

As discussed previously, condors are foraging over a large expanse of their range and finding their own naturally occurring carrion. While this has continued, and probably increased the wild population's exposure to lead poisoning, the suggestion that condor use of feeding stations and an absence of natural foraging behavior provides them time to engage in nonessential activities and bring them into greater contact with humans and trash, including microtrash, has not been confirmed. This conjecture is contradicted by evidence from the Arizona and Central California Coast release programs, both of which provide supplemental food for trapping and for feeding recently released juvenile 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 population did during the period when Hopper Mountain National Wildlife Refuge was the only feeding station. Condor populations in southern California, central California, and Arizona all receive some amount of supplemental food for the condor recovery

program purposes described above. All of these populations find their own food sources despite the presence of supplemental food sources, and only the southern California subpopulation has experienced problems with microtrash—suggesting that some of the locations condors in southern California spend time in appear to have a large amount of microtrash (i.e., oil pads adjacent to the Sespe condor sanctuary). The Service does not have any reason to believe the supplemental feeding of young, recently released condors is increasing the population’s exposure of condors to microtrash.

## **1H.2.6 Supplemental Feeding and Lead Ingestion**

A comment stated that improved compliance with the lead ammunition ban will result in lead poisoning ceasing to be a threat to the condor and suggests that the permanent supplemental feeding program proposed in the Draft TU MSHCP will become obsolete.

The Service fully supports the commenter’s positive outlook on the future of the recovery program in regards to lead poisoning and believes an effectively implemented lead ammunition ban can minimize this threat. As discussed above, the Service is not contemplating, and the TU MSHCP does not require, implementation of a permanent supplemental feeding program on Tejon Ranch. Also, as discussed in Section 1H.2.1, Overview, above, recent data indicates supplemental feeding has not been shown to be an effective tool to facilitate the avoidance of lead poisoning in condors in and of itself. However, any lead-free carcasses, including supplemental carcasses provided by the Service’s Condor Recovery Program, would continue to benefit individual condors and the recovering population, until lead contamination is no longer a threat.