

Master Response 3

Raptors

Table MR3-1. Comments Addressed in Master Response 3

Comment Number	Commenter
G2-19	Environmental Protection Agency
G2-20	Environmental Protection Agency
04-61	Center for Biological Diversity (Keats, Adam)
04-151	Center for Biological Diversity (Keats, Adam)
04-152	Center for Biological Diversity (Keats, Adam)
04-153	Center for Biological Diversity (Keats, Adam)
04-154	Center for Biological Diversity (Keats, Adam)
04-155	Center for Biological Diversity (Keats, Adam)
04-156	Center for Biological Diversity (Keats, Adam)
04-157	Center for Biological Diversity (Keats, Adam)
04-158	Center for Biological Diversity (Keats, Adam)
04-159	Center for Biological Diversity (Keats, Adam)
04-160	Center for Biological Diversity (Keats, Adam)
04-161	Center for Biological Diversity (Keats, Adam)
04-162	Center for Biological Diversity (Keats, Adam)
04-163	Center for Biological Diversity (Keats, Adam)
04-164	Center for Biological Diversity (Keats, Adam)
04-165	Center for Biological Diversity (Keats, Adam)
04-166	Center for Biological Diversity (Keats, Adam)
04-167	Center for Biological Diversity (Keats, Adam)
04-168	Center for Biological Diversity (Keats, Adam)
04-169	Center for Biological Diversity (Keats, Adam)
04-170	Center for Biological Diversity (Keats, Adam)
04-171	Center for Biological Diversity (Keats, Adam)
04-172	Center for Biological Diversity (Keats, Adam)
04-173	Center for Biological Diversity (Keats, Adam)
04-174	Center for Biological Diversity (Keats, Adam)
04-175	Center for Biological Diversity (Keats, Adam)
04-176	Center for Biological Diversity (Keats, Adam)
05-2A	Defenders of Wildlife
05-2B	Defenders of Wildlife
05-5	Defenders of Wildlife

3.1 Summary of Substantive Comments

The following summarizes the substantive comments received on the Draft EIS and Draft TU MSHCP specific to raptors. Table MR3-1 provides a list of the commenters and a reference to the individual comment, as summarized in the following list. The parenthetical reference after each summary bullet indicates where a response to that comment is provided.

The comments specific to raptors generally expressed concern that the avoidance measures prescribed in the TU MSHCP were not adequate to avoid adverse effects on raptor breeding on Covered Lands. These comments address the following topics:

- Buffers and viewsheds for nesting, roosting, and perching sites related to human activities. (Response provided in Section 3.2.1, Buffers and Viewsheds.)
- Failure to identify long-term (operational) effects and reliance on unidentified design features. (Response provided in Section 3.2.2, Long-Term [Operational] Effects and Project Design Features.)
- Grazing management effects. (Response provided in Section 3.2.3, Cattle Grazing.)
- Recreation and pet impacts, including enforceability of measures to protect wildlife (Response provided in Section 3.2.4, Recreation, Pets, and Enforceability.)
- Infrastructure access, trails, and facilities impacts. (Response provided in Section 3.2.5, Infrastructure, Access, Trails, and Facilities.)
- Baseline surveys, the adequacy of the goals and objectives in the Draft TU MSHCP, and the adequacy of the proposed adaptive management strategy. (Response provided in Section 3.2.6, Goals and Objectives, Baseline Surveys, and Adaptive Management.)
- Pest management and the use of rodenticides, which can cause toxic buildups in higher-level carnivores such as raptors. (Response provided in Section 3.2.7, Pest Management, Rodenticides and Bubonic Plague.)
- Portrayal of Established Open Space as potentially unfragmented and the TMV Planning Area Open Space as fragmented. (Response provided in Section 3.2.8, Habitat Fragmentation.)
- Lack of definitions for habitat use types, such as secondary breeding and foraging habitat. (Response provided in Section 3.2.9, Habitat Type Definitions.)
- Avoidance of take of fully protected species (the American peregrine falcon, bald eagle, golden eagle, white-tailed kite) when a net loss of habitat would occur, including habitat degradation, and other indirect effects related to the Covered Activities. (Response provided in Section 3.2.10, Fully Protected Species and Lethal Take.)
- General threats to raptors versus TU MSHCP-related effects, including collisions with wind turbines, powerlines, and other physical structures. (Response provided in Section 3.2.11, Identification and Mitigation of Threats.)
- Loss of individuals and/or nesting pairs of golden eagles and burrowing owls. (Response provided in Section 3.2.12, Burrowing Owl, and Section 3.2.13, Golden Eagle.)
- Discrepancies in reported effect and conservation acreages for the white-tailed kite. (Response provided in Section 3.2.14, White-Tailed Kite.)
- Direct and indirect effects on bald eagle habitat, including potential reduction of Castac Lake levels. (Response provided in Section 3.2.15, Bald Eagle.)

3.2 Responses to Substantive Comments

3.2.1 Buffers and Viewsheds

Comments suggested the proposed setback buffers and viewsheds for raptors in the TU MSHCP are inadequate, are not based on the best available science, and would not avoid adversely affecting raptor behavior, including reproduction.

There are five raptor species covered in the TU MSHCP and analyzed in Section 4.1, Biological Resources, of this Supplemental Draft EIS: the American peregrine falcon (*Falco peregrinus anatum*), the bald eagle (*Haliaeetus leucocephalus*), the burrowing owl (*Athene cunicularia*), the golden eagle (*Aquila chrysaetos*), and the white-tailed kite (*Elanus leucurus*). Section 7.1.1.2, Birds, in the Draft TU MSHCP describes the species-specific protection measures that would be implemented to minimize effects on raptors, including implementation of buffers and viewshed protections between raptor nesting, roosting, and perching sites and construction and long-term operational activities. This response summarizes the likely habitat present for each species and the corresponding setback and buffer to protect nesting, roosting, and perching sites.

The occurrence and suitable habitat information regarding the five raptor species on Covered Lands is described in Section 3.1, Biological Resources, of Volume I of this Supplemental Draft EIS, and Section 5.2.2, Birds, of the TU MSHCP. Golden eagles nest and forage on the Covered Lands, with three active nests observed in the TMV Planning Area in 2007. The American peregrine falcon, bald eagle, burrowing owl, and white-tailed kite have been observed to use portions of the Covered Lands during the winter for foraging, but none of these species has been documented to nest on the Covered Lands. However, there is modeled nesting habitat on the Covered Lands for the peregrine falcon (a very limited amount), the burrowing owl, and the white-tailed kite, and these species are considered to have at least some potential to breed on site because the Covered Lands are within their known breeding range. The bald eagle is expected only to winter and forage on Covered Lands in the vicinity of Castac Lake; it is not expected to nest on site.

Nesting golden eagles are sensitive to human disturbance (Remsen 1978, p. 32; Thelander 1974, p. 11). The TU MSHCP proposes several measures that would avoid, minimize, and mitigate the effects on nesting golden eagles. As stated in Objective 6.1, surveys would be conducted for active nests in modeled primary breeding and breeding/foraging habitat during the breeding season (January through August) prior to approval of the grading plan for each phase of development. The results of these surveys would be used during site development and would take into consideration viewshed and distance factors to protect nest sites. Objective 6.2 for golden eagle includes several criteria to protect active (primary and/or alternate) nest sites from disturbance. No development, new trails or recreational activities would be allowed within 0.25 mile of an active nest site, within or outside the viewshed, and no development would be allowed within the viewshed that is also within 0.5 mile of an active nest. Development would be restricted to low-density development within the viewshed up to 1 mile from the active nest. For development within 0.5 to 1 mile of an active nest site, siting and design criteria would be established to avoid and minimize effects on modeled foraging habitat, primarily through clustering of development. Objective 9.2 states that trail use would be restricted between 0.25 and 0.5 mile within the viewshed of an active nest site during the primary nesting season (generally February 1 through July 30), when birds would be sensitive to human activities, unless a qualified, Service-approved biologist determines that the nest site has become inactive and would not affect nesting golden eagles. These objectives were developed cooperatively between the Service and TU MSHCP consultant team, including raptor biologist Pete Bloom, and are based on many years of field experience and observation by professional biologists.

A commenter expressed concern that the buffers and setbacks are not based on the best available science and that viewsheds for both nesting and hunting habitats should have been calculated using a three-dimensional geographic information system (GIS) tool. Spatial and temporal buffer zones have been suggested as a means to minimize the effects of recreational and other human activities on breeding raptors. In particular, a zone of 333 meters (0.2mi) radius has been suggested for golden eagles when birds are rearing young and exposed to various human activities (Suter and Jones 1981). Other recommendations include establishing spatial nest buffers from 0.13 to 1.0 mile depending on the terrain and nest location (Richardson and Miller 1997). However, a viewshed approach has been suggested as a more realistic application to buffering active nest sites since flushing distances (from nests, perches, roosts) of adult eagles can be reduced when eagles are visually shielded (by vegetation and/or topographical features) from human activities. A viewshed approach to managing disturbances may require less protected area than standardized buffer zones (Camp, et al, 1997). For golden eagles, a three-dimensional viewshed analysis using GIS was conducted for active golden eagle nests within the TMV Planning Area. This is the only raptor Covered Species documented to nest in proximity to development areas. The analysis took into consideration topography, vegetation cover and height, elevation, distance from the nest tree, and nest height. The analysis included distances measured at 0.25, 0.5, and 1 mile from the nest. A maximum of 1 mile was used since that is the outer range of buffer zones listed in the literature as appropriate for golden eagles (Richardson and Miller 1997). The results of this analysis was considered in determining the TMV Development Envelope boundary and would be incorporated into the final site development plans for the TMV Project. In addition, and, as discussed previously, the viewshed guidelines (summarized above) would apply to any future golden eagle nests that are discovered during surveys that would be conducted prior to ground disturbance activities within the TMV Specific Plan Development Envelope. However, the viewshed tool is not practical for use in foraging habitat because hunting by most raptors is carried out on such a broad scale and opportunistically in relation to food sources. For example, the size of golden eagle foraging territories is related to prey density and is quite variable. In southern California, estimated territories are approximately 23,000 acres, and, in northern California, they are approximately 30,700 acres (Zeiner et al. 1990, p. 142).

For the other raptors with some potential to breed on site (the American peregrine falcon, white-tailed kite, and burrowing owl), because there are no known nest sites, surveys prior to construction would be conducted, as discussed below, and appropriate measures set forth in Section 7.1.1.2 of the TU MSHCP would be undertaken. Specifically, prior to Commercial and Residential Development Activities, preconstruction surveys in breeding habitat would be conducted. If any of these species are found nesting in proximity to Disturbance Areas prior to construction, setbacks from active nests would be established during the nesting period as follows.

- An 0.25-mile protection zone would be established around each active peregrine falcon nest (Objective 4.2 of Section 7.1.1.2.1, American Peregrine Falcon, in the TU MSHCP). This setback distance is based on the variable response of nesting peregrine falcons to human activities. Birds that nest in urban areas or highly visited areas become habituated to close human activities, while birds nesting in isolated areas tend to be more sensitive to disturbance (White et al. 2002, p. 1). In addition, there is very limited potential nesting habitat for the peregrine falcon on Covered Lands, it is only expected to forage on site during the winter, and the Covered Lands are not considered to be important breeding habitat for this species. Also, White et al. (2002, p. 1) indicate that human disturbance of nesting sites does not appear to be a significant factor in population declines of the peregrine falcon.
- For the white-tailed kite and the burrowing owl, a setback of 500 feet and 300 feet, respectively, would be established around each active nest site (Objective 4.3 of Section 7.1.1.2.3, Burrowing Owl, and Objective 4.3 of Section 7.1.1.2.11, White-Tailed Kite, of the TU MSHCP, respectively). Once construction activities have been initiated, nesting attempts by the burrowing owl within

300 feet of construction activities would not be subject to the 300-foot setback, although no nests would be directly disturbed. These setbacks may be reduced at the discretion of the Service-approved biologist depending on site conditions (e.g., viewshed or natural noise barriers resulting from topography).

The adequacy of a 500-foot setback guideline for the white-tailed kite is supported by empirical data. A recent study of white-tailed kite nesting and roosting behavior in Santa Barbara County (Rincon 2010, p. 5) indicates that individuals of this species are tolerant of urban development and other human activities within 500 feet of nests and roost sites. However, it is likely that white-tailed kites, like peregrine falcons and many other raptor species, exhibit individual tolerances or habituation to urban settings and human activities. Rincon (2010, p. 5) examined historic nest site locations in Goleta Valley in relation to different types of disturbances, including development (roads, fencing, walls, and fuel management zone), active nonmotorized recreational uses such as equestrian and bicycling, and passive recreation such as walking and bird watching. The data used for the analysis were based on 2008 and 2009 surveys on More Mesa and historic nests and roosts dating back to 1963, background literature, and consultation with local experts. Of 42 nest sites, 17 occurred within 500 feet of some type of urban disturbance, indicating some level of tolerance by individuals of this species to human activities. White-tailed kites generally were more tolerant of nonstructural human activities (e.g., recreation), with 9 of the 17 nest sites located within 140 feet of a structure (Rincon 2010, p. 5). Thirteen of the 17 nest sites were within 125 feet of a road, yard, agricultural field, trail, or other nonstructural type of human disturbance. Based on this analysis, Rincon (2010, p. 6) developed nest and roosting buffer guidelines, including the following:

- 1–125 feet: minimum area of no human activity
- 125–200 feet: passive recreation (walking and bird watching)
- 200–265 feet: active recreation (equestrian, bicycling – no motorized vehicles)
- 265–340 feet: roads, fencing, walls, lawns, 100-foot fuel management zone
- 340–525 feet: structures

For the burrowing owl, the proposed 300-foot buffer to protect nesting sites is consistent with and exceeds the guidelines set forth by California Burrowing Owl Consortium's *Burrowing Owl Survey Protocol and Mitigation Guidelines* prepared in 1993 and submitted to the California Department of Fish and Game (CDFG) (Burrowing Owl Consortium 1993). The Consortium recommends that no disturbance should occur within 75 meters (approximately 250 feet) of a nest burrow during the breeding season (Burrowing Owl Consortium 1993, p. 7). Avoidance also requires that a minimum of 6.5 acres of foraging habitat be preserved contiguous with occupied burrow sites for each pair of breeding burrowing owls (with or without dependent young) or single unpaired resident bird (Burrowing Owl Consortium 1993, p. 7). Although these setback guidelines have not been formally adopted by CDFG, they are provided on CDFG's weblink for survey protocols and monitoring guidelines (California Department of Fish and Game 1993).

Preactivity surveys related to the long-term effects of Plan-Wide Activities, such as recreation, would also be conducted during the breeding season of the American peregrine falcon and the white-tailed kite. Commenters requested that preactivity surveys be required for fuel management involving tilling or disking. Although tilling and disking is not anticipated in conjunction with fuel management activities, preactivity surveys would be conducted in the 1,773 acres of development-related fuel management activities in open space areas. Setbacks would be established from active nest sites (1,000 feet for the peregrine falcon [Objective 6.2] and 500 feet for the white-tailed kite for passive recreation activities [Objective 7.2]) until all young have fledged and are no longer dependent on the nest for survival. The commenter specifically questioned the 1,000-foot setback for the American peregrine falcon, recommending

that a site-specific analysis be done and that the setback be increased beyond 1,000 feet, if needed. The sufficiency of the 1,000-foot setback is discussed above. As noted, peregrine falcons have successfully bred in urban areas.

- For the bald eagle (which does not breed on site), measures would be implemented to reduce effects on overwintering individuals that may perch, roost, and forage on the Covered Lands. Objective 3.2 in Section 7.1.12.2, Bald Eagle, of the TU MSHCP requires preconstruction surveys for wintering individuals and mapping of preferred diurnal perches and roosting sites if present. Preferred diurnal perches and roosting sites would be conserved according to a protocol described in Objective 3.2, including a consideration of tree size (larger trees are better) and distance from Castac Lake, replacement of affected large trees near Castac Lake, and girdling of some trees to create snags for perching. Objective 3.4 for the bald eagle requires adequate setbacks from preserve roosting areas. These would be determined by a qualified Service-approved biologist based on focused surveys for wintering bald eagles conducted prior to approval of the grading plan for each phase of development within 1 mile of Castac Lake. Objective 3.4 specifies that uses within the roost area and setback would be limited to those approved by the qualified Service-approved biologist in the bald eagle wintering period between October 15 and March 16. Recreational uses would be excluded from the roosting and setback area. Objective 7.3 for the bald eagle specifies that the minimum setback during this period would be 300 feet, but the setback may be adjusted by the qualified Service-approved biologist based on site conditions (e.g., topography). In addition, as stated in Objective 4.1 for the bald eagle, construction-related ground disturbances in wetland habitat associated with Castac Lake and woodland habitat within 1 mile of Castac Lake would be avoided from October through March.

A commenter stated that measures to minimize effects on the bald eagle are vague and that Section 7, Conservation Plan for Other Covered Species, of the Draft TU MSHCP refers to a 300-foot setback, while Section 6, Potential Biological Impacts / Take Assessment, of the Draft TU MSHCP refers to a 500-foot setback. The commenter suggested that the setback should be 250 to 400 meters (820 to 1,312 feet), citing Stalmaster and Newman (1978) and Craig (2002). The commenter suggests a management zone of 1,360 to 1,400 meters (4,462 feet to 4,593 feet), citing Buehler et al. (1991).

The reference to 500 feet in Section 6.2.2.2.2, Analysis of Potential Impacts to Bald Eagle, of the Draft TU MSHCP was an error has been corrected to reflect a setback distance of 300 feet. The TU MSHCP provides a management zone of 1 mile and a minimum setback of 300 feet, which can be increased depending on site-specific considerations. As described in Section 3.1, Biological Resources, in Volume I of this Supplemental Draft EIS and Section 5.2.2.2.3, Occurrence in the Covered Lands, of the TU MSHCP, bald eagle occurrences on site are infrequent foraging observations. Because this species has been observed infrequently during the winter, bald eagle presence on site is not considered to be a wintering congregation. The TU MSHCP setback is generally consistent with Stalmaster and Newman's recommendation for bald eagle wintering grounds in Disturbance Areas.

Specifically, the Stalmaster and Newman (1978, pp. 506–513) study focused on the response of bald eagle wintering populations to simulated disturbances in three land covers (vegetation zone, riverbank, and river channel). In vegetation buffer zones, the observer was visible to the bald eagles at between 75 and 100 meters (247 to 329 feet). In the riverbank zones, the bald eagles flushed when the observer was within 251 to 300 meters (826 to 987 feet). In the river channel zones, the bald eagles flushed when the observer was within approximately 300 meters (987 feet). For vegetated wintering grounds where disturbances are common, Stalmaster and Newman (1978, p. 512) recommend a buffer of 75 to 100 meters (247 to 329 feet). In open areas, the authors recommend a larger buffer of 250 meters (820 feet) to protect a congregating

bald eagle wintering population; a combination of buffer and vegetation being preferable. The Stalmaster and Newman (1978, p. 512) study also noted that bald eagles can adjust to routine human activities.

The Craig (2002, pp. 1–6) study is not based on empirical data. Craig (2002) provides recommendations for buffer zones and seasonal restrictions for Colorado raptors, including buffers and setbacks for nesting, roosting, and/or perching raptors, including the bald eagle. Craig (2002, p. 2) recommends a buffer of 0.25 mile (400 meters, 1,320 feet) for winter night roosts between November 15 and March 15. Craig (2002, p. 1) also states that buffer zones can be adjusted depending on vegetation screens and terrain that obscure the activity. Craig (2002, p. 2) also recommends protection of diurnal perches in association with foraging areas and notes that he is aware of two management plans that recommend zones ranging from 0.13 mile (200 meters, 660 feet) to 0.25 mile (400 meters, 1,320 feet).

Consistent with Stalmaster and Newman, the 300-foot setback is proposed under the TU MSHCP, in combination with the conservation and management of diurnal roosts and perches, for three main reasons:

- the bald eagle is an infrequent winter visitor on site;
- the Covered Activities in proximity to the wintering habitat would be primarily recreational (trail and golf course) and residential, activities to which the returning eagles can likely adjust; and
- 795 acres (55%) of wintering habitat and 506 acres (99%) of foraging habitat would be protected in perpetuity in open space areas.

Regarding the proposed management of lakeside vegetation for the benefit of wintering bald eagles, Buehler et al. (1991, p. 279) recommends management in communal roosting forest stands of 190 hectares (470 acres). The 190 hectares exceeds the minimum communal roost forest stand size of 110 hectares (272 acres) (Buehler et al. 1991, p. 279). The management recommendation was proposed for Chesapeake Bay undeveloped shoreline forest stands extending a minimum of 1,400 meters (4,606 feet, 0.87 mile) inland, with a minimum of 1,360 meters of shoreline edge. Buehler et al. (1991, p. 279) recommended protection of existing tall, large-diameter trees and the promotion of stands of trees where lacking. The TU MSHCP would include the conservation of 795 acres (55%) of wintering habitat for the bald eagle within the Covered Lands, which greatly exceeds the Buehler et al. (1991, p. 279) minimum communal roosting acreage of 272 acres. In addition, the Covered Lands do not support a communal roosting site for the bald eagle; this species is an infrequent winter visitor. Section 7.1.1.2.2, Bald Eagle, of the TU MSHCP includes conservation of preferred diurnal perches and high-quality roost trees for the bald eagle within 1 mile of Castac Lake and the promotion of stands of trees within 100 feet of Castac Lake; this exceeds the Buehler et al. (1991) recommended management zone of 1,400 meters (4,606 feet, 0.87 mile). Thus, the proposed bald eagle Goal 3 and associated objectives would protect diurnal perches and roosts, and would exceed the Buehler et al. (1991, p. 279) minimum communal roosting acreage and management zone recommendations.

3.2.2 Long-Term (Operational) Effects and Project Design Features

A commenter indicated that the TU MSHCP fails to identify what the long-term (operational) effects on raptors are and that the avoidance and minimization of these effects rely on unidentified project design features.

Long-term (operational) effects with potential nonpermanent effects on raptors and other birds are identified in Section 4.1, Biological Resources, in Volume I of this Supplemental Draft EIS and Section 6.2.2, Birds, of the TU MSHCP and include introduction of exotic plant and animal species and urban runoff into habitat used by the species. These long-term (operational) effects could result in degradation of breeding, perching, roosting, and foraging habitat (e.g., introduction of nonnative plant species or urban runoff into riparian and woodland areas used by these species) and could introduce potential urban-related predators, such as dogs and cats that may prey on or harass burrowing owls and other foraging raptors. Lighting could also result in long-term (operational) effects on raptors because it may increase predation and cause adverse effects on the behavior and physiology (e.g., increased stress levels) of raptors. The design features identified in Section 7, Conservation Plan for Other Covered Species, of the TU MSHCP to avoid and minimize effects from nonnative species and urban runoff generally provide for setbacks between suitable habitat and the Development Envelope. Lighting would be directed away from suitable habitat.

3.2.3 Cattle Grazing

Commenters indicated that potential effects from cattle grazing are not identified for the raptors and that the grazing plan should be included in the TU MSHCP in order to evaluate its adequacy as a basis for avoiding, minimizing, and mitigating effects.

Section 4.1, Biological Resources, in Volume I of this Supplemental Draft EIS and Section 6.2.2, Birds, in the TU MSHCP, describe the effects that cattle grazing in the Covered Lands could have on raptor species, including habitat degradation when cattle congregate and otherwise trample suitable breeding and foraging habitat. However, both the Supplemental Draft EIS and the TU MSHCP recognize that cattle grazing is an existing condition and, as such, is considered part of the environmental baseline for purposes of analysis under the National Environmental Policy Act (NEPA). Specifically, the effects of continued cattle grazing are considered in the discussion of Existing Ranch Uses under the No Action Alternative and under the discussion of Plan-Wide Activities for the Proposed TU MSHCP Alternative.

Similar to existing grazing practices, the TU MSHCP would limit grazing to historic light-to-moderate levels to protect range quality, including environmental (e.g., water quality, riparian areas, and species biodiversity) and grazing conditions. Specific and ongoing provisions to protect range quality are provided in the Interim Ranchwide Management Plan (RWMP), which was approved by the Tejon Ranch Conservancy in 2009 (Tejon Ranch Company 2009) and is appended to the TU MSHCP. Successor RWMPs would be subject to the same requirements to preserve and protect existing conservation values that govern the Interim RWMP. The Interim RWMP includes the initial grazing, pest management, and public access plans for the open space areas managed by the Tejon Ranch Conservancy (currently the Established Open Space Area and Existing Conservation Easements Areas, both of which are included in the permanent open space under the Proposed TU MSHCP Alternative). The TMV Project adopted the same grazing and pest management plan for the TMV Planning Area Open Space. These initial plans set forth the existing best management practices (BMPs) that have helped create the current mix of habitat types and species diversity on the Covered Lands, including foraging, perching, and roosting habitat for the five raptor Covered Species and nesting habitat for the golden eagle. In addition, a grazing management plan with the BMPs, including techniques and practices such as seasonal grazing, exclusions, and rotational practices that are consistent with high levels of biodiversity and maintenance of suitable conditions for raptor foraging and nesting (e.g., grazing intensities that maintain high prey abundance and wetland/riparian exclusion fencing where necessary), would be submitted for review and approval by the Service. The provision requiring Service approval of the grazing management plan is provided in Section 7.3.2, Effectiveness Monitoring, of the TU MSHCP and the Implementing Agreement.

The presence of three active golden eagle nest sites in the TMV Planning Area in 2007 (Dudek 2007) indicates that the current cattle operation and historic and current light-to-moderate grazing practices on Tejon Ranch are compatible with golden eagle nesting and foraging, and that these grazing practices do not prevent the maintenance of adequate prey for golden eagle on the site. The observations of winter use of the Covered Lands for foraging by the American peregrine falcon, bald eagle, burrowing owl, and white-tailed kite in 2007 also indicate that grazing practices on Covered Lands are compatible with their use of the site for foraging and wintering. The scientific literature also indicates that the burrowing owl commonly forages on grazed lands (Haug et al. 1993, p. 1). As a result, the Service anticipates that cattle grazing under the TU MSHCP, at levels comparable to existing conditions, would not result in adverse effects on nesting or foraging raptors.

3.2.4 Recreation, Pets, and Enforceability

One commenter indicated that potential effects on raptors related to human recreation and pet activities are not identified in the Draft TU MSHCP and that the mitigation proposed for these potential effects, such as educational material, is not mitigation. The commenter suggests that additional information, including identification of potential effects and avoidance, minimization, and mitigation measures need to be included. Another commenter suggested that prohibitions on feeding bald eagles and other prohibitions to protect wildlife need to be made enforceable through law or ordinance and should be noted on signage.

Section 4.1, Biological Resources, in Volume I of this Supplemental Draft EIS and Section 6.2.2, Birds, of the TU MSHCP consider the effects that increased human activity and domestic pets may have on the Covered Species, including each of the raptor species. Specifically, human presence and associated passive and active recreation could result in habitat degradation and disturbance of the raptors. To address these potential effects, public access, trails, and facilities would be sited to minimize effects on open space areas. The setbacks to nesting, perching, and roosting sites discussed previously would be implemented, including seasonal restrictions on recreational and hunting activities, and prohibitions on use of trails with 0.25 mile of an active golden eagle nest. Additional objectives described in Section 7.1.1.2, Birds, of the TU MSHCP for each of the raptor species would be implemented to further reduce potential effects on raptors by humans and pets. These additional measures include a requirement that a Homeowners Association educational program be implemented to provide educational information regarding acceptable recreational activities, pets, wildlife, and open space areas. These measures would reduce potential effects on raptors (and other native wildlife). An integrated pest management plan (IPMP) would also be required as a general mitigation measure under the TU MSHCP, as described in Section 7, and is expected to benefit all Covered Species.

With respect to signage, Objective 7.2 in the TU MSHCP for bald eagles prohibits intentional feeding, and Objective 7.5 refers to interpretive and educational signage about the species at Castac Lake. Signs would inform the public about bald eagles, their habitat requirements, and their sensitivity to human disturbance. By educating the public about eagle vulnerabilities and proper human behavior around eagles, such signs can be expected to reduce effects on eagles caused by recreational users.

The commenter recommended that all prohibitions to protect wildlife, including this prohibition against feeding bald eagles, be made enforceable by ordinance and that any signage include a notice that it is enforceable by law or ordinance. Here, as noted in Table 2-3 in Volume I of this Supplemental Draft EIS, the feeding prohibition of bald eagles would be enforced through the terms of conservation easements, covenants, conditions and restrictions (CC&Rs), which are legally binding contracts, and are enforceable through prescribed notices and hearings and ultimately through the civil courts. In response to this comment, the Draft TU MSHCP has been revised to include information on signage about enforceable prohibitions against feeding wildlife as follows:

Objective 7.2: Intentional feeding of bald eagles will be prohibited on the Covered Lands, and language will be included in the CC&Rs that prohibits the feeding of this species and other wildlife species on the Covered Lands. The project biologist will install signage adjacent to Castac Lake indicating that feeding bald eagles is prohibited. Such signage will indicate that prohibitions will be enforceable for all residents and guests.

Additionally, with respect to enforceability of the prohibitions to protect wildlife generally, all the prohibitions prescribed in the TU MSHCP would be enforceable under the Federal Endangered Species Act (ESA). Under Section 10(a)(2)(B) of the ESA, the Service must receive assurances that the HCP would be implemented prior to issuing an incidental take permit (ITP). Through the TU MSHCP, including the Implementing Agreement, and enforceable conditions in the ITP, the mitigation, avoidance, and minimization measures in the TU MSHCP would be ensured of being implemented and would be enforceable by Service. The TU MSHCP Implementing Agreement clarifies that the ITP does not shield third parties from liability under the ESA for take of Covered Species, or limit the authority of the state or Federal government to enforce endangered species laws.

3.2.5 Infrastructure, Access, Trails, and Facilities

One commenter indicated that the Draft TU MSHCP does not identify what infrastructure, access, trails, and facilities are proposed, making evaluation of effects on the raptors impossible. The commenter specifically requested the acreage amount for road crossings and culverts in open space areas.

While infrastructure and other requirements for the TMV Project are generally known, the final design and siting of these elements have not been completed for all proposed Commercial and Residential Development Activities, or for all of the Plan-Wide Activities. The precise acreage of road crossings and culverts in open space is also not known. However, development areas are identified for the Commercial and Residential Development Activities, and 200 acres of land disturbance related to Plan-Wide Activities in open space (including road and utility infrastructure installation) would be allowed under the TU MSHCP. This Supplemental Draft EIS analyzes how this development activity would affect all Covered Species, including raptors, in Section 4.1, Biological Resources. The TU MSHCP provides guidelines to avoid and reduce effects on raptors from open space infrastructure and trail facilities. Road and utilities infrastructure activities, including construction, repair, maintenance, and use, would include efforts to minimize disturbance footprints and use BMPs for design and installation of such facilities. For example, as described above for golden eagle, there would be restrictions on development in proximity to active nest sites. The location of recreational trails is not yet known; however, the TU MSHCP requires BMPs for the design and location of trails and requires that a public access plan that includes such BMPs be subject to Service review and approval for consistency with the TU MSHCP and the ESA.

3.2.6 Goals and Objectives, Baseline Surveys, and Adaptive Management

Comments indicated that a meaningful adaptive management strategy has not been provided for raptors in the Draft TU MSHCP and that it is unclear how the goal of avoiding effects of “other non-permanent Covered Activities” (e.g., Goal 10 for golden eagle) would in part be met by conducting environmental baseline surveys (e.g., Objective 10.1 for golden eagle).

Section 7.5, Adaptive Management Strategy, of the TU MSHCP describes the proposed adaptive management approach for the TU MSHCP as focusing on achieving the measurable goals and objectives of the conservation plan, including those provided in Section 7.1, Biological Goals and

Objectives for Other Covered Species. Under the TU MSHCP, 82% of the Covered Lands (116,523 acres) would be reserved as TU MSHCP Mitigation Lands and an additional 9% (12,795 acres), comprised of the Existing Conservation Easement Areas, would be retained in permanent open space (see Chapter 2, Proposed TU MSHCP and Alternatives, in Volume I of this Supplemental Draft EIS). This land conservation approach is the basis for the adaptive management strategy in the TU MSHCP and focuses on continuing the existing open space land practices within the Covered Lands, and avoiding the effects of the nonpermanent activities so that high-quality habitat for the raptors and other Covered Species is maintained.

Specific to raptor species, adaptive management strategies would be directed toward avoiding and minimizing potential effects associated with increased human presence and proximity to open space. The open space baseline surveys and effectiveness monitoring described in Section 7.3.2, Effectiveness Monitoring, of the TU MSHCP would provide the link between the goals and objectives for raptors, and adaptive management approach. Monitoring would assess the biological conditions in the open space system and the effectiveness of the avoidance and minimization measures provided in the TU MSHCP, and would provide the information needed to identify and implement appropriate adaptive management measures, as appropriate. Open space baseline surveys would be used to establish existing resources conditions, including the status of the raptor Covered Species, which would provide the “measuring stick” for the effectiveness monitoring to identify adverse changes or trends in resource conditions that may affect these species. Effectiveness monitoring would include vegetation community mapping updates, selective on-the-ground monitoring for invasive and nonnative species, and monitoring of Plan-Wide Activities so that activities can be modified, if needed, through the adaptive management program (e.g., grazing exclusion fencing, trail closure).

3.2.7 Pest Management, Rodenticides, and Bubonic Plague

One commenter indicated that the Draft TU MSHCP does not analyze the effects of pesticides and other contaminants on the burrowing owl and specifically the effects of rodenticides on higher level carnivores, including raptors. The comment ties the use of rodenticides to controlling potential exposure of humans to bubonic plague, which may be carried by ground squirrels that are common prey for large raptors.

Both the Supplemental Draft EIS and the TU MSHCP recognize that all species, including raptors, may be affected by increased human presence. As described in Section 4.1, Biological Resources, in Volume I of this Supplemental Draft EIS, increased human presence could result in more chemical use, including rodenticides, which could affect habitat and be toxic to species. Use of pesticides and rodenticides related to agricultural use is specifically noted as a threat to the burrowing owl, which may be directly poisoned or indirectly poisoned by prey contamination.

At present, pesticides are not a threat to raptors. The vast majority of the Covered Lands are grazed, and irrigated cultivation of agricultural lands, where use of rodenticides is more common, is limited to approximately 6,750 acres of agricultural fields and orchards on Tejon Ranch, located primarily near the southeastern end of the San Joaquin Valley near the existing ranch headquarters, on the western portion of Tejon Ranch in the Grapevine area, and in Los Angeles County, near Highway 138 and 300th street (much of this land is located outside of the Covered Lands). As such, because the widespread use of rodenticides in open space areas is not anticipated, effects on raptors foraging in grazed, open space areas would be minimal.

Tejon Ranch currently conducts pest management activities on the Covered Lands. The current pest management plan, which was approved as a part of the Interim RWMP by the Tejon Ranch Conservancy in 2009, applies to the Conservancy-managed open space areas and includes BMPs for use of pesticides (including rodenticides) in those areas. As part of the Kern County TMV Project

Approvals, the County also made the pest management plan, referred to as the grazing and pest management plan, applicable to the TMV Planning Area Open Space (Kern County 2009). The BMPs in that plan allow pesticide use near barns and human structures in compliance with legal requirements, specify that pesticides may only be used when determined necessary under recommendation of a Certified Pest Control Adviser or other appropriately trained personnel, require that employees are trained or certified as appropriate, and require that the best practice guidelines established by the manufacturer be followed.

Under the TU MSHCP, rodenticide use, if any, would be associated with development areas, rather than open space. As described in Section 7.2.1, Measures to Avoid and Minimize Impacts, the TU MSHCP would require development of an IPMP, which would likely benefit raptor and other Covered Species by providing prescriptions for controlling invasive species, ensuring that pest management activities do not conflict with native burrowing animals, and minimizing potential effects on water quality. Any use of rodenticide to control ground squirrels that may carry bubonic plague would be addressed in the IPMP. A framework IPMP would be completed for review by the Service following permit issuance, followed by project-specific pest management plans for specific development uses, specific ranch operations, and open space management. All such plans must be reviewed and approved by the Service, as set forth in Implementing Agreement Sections 5.1.1(d) and 5.2.4, and meet the requirements of Section 7.2.1 of the TU MSHCP. Revisions to these pest management plans would be required to implement the performance standards set forth in the TU MSHCP mitigation measure, and be reviewed by the Service, as provided in the Implementing Agreement.

3.2.8 Habitat Fragmentation

Comments related to the conservation of raptor habitat on Covered Lands characterize Established Open Space as “potentially unfragmented” and the TMV Planning Area Open Space as “fragmented.”

Established Open Space accounts for 93,522 acres (66%) of existing undeveloped, natural lands in the 141,886 acres of Covered Lands and is unfragmented (see Figure 1-3 of the TU MSHCP). The TMV Planning Area Open Space encompasses 23,001 acres, including two large, unfragmented habitat blocks of approximately 6,660 and 7,550 acres. A figure has been added to the TU MSHCP and Supplemental Draft EIS identifying this area as the TMV Planning Area Initial Mitigation Lands (see Figure 2-4 in Volume I of this Supplemental Draft EIS). In addition, the remaining areas of the TMV Planning Area Open Space would provide important habitat connectivity, because the TMV Planning Area Open Space is generally contiguous with the Established Open Space, as well as the Existing Conservation Easement Areas, thus expanding the total area of unfragmented habitat.

3.2.9 Habitat Type Definitions

Commenters indicated that different habitat use types, such as secondary breeding and foraging habitat, are not defined for some of the raptor species.

The different habitat functions for raptors are described in Section 3.1, Biological Resources, in Volume I of this Supplemental Draft EIS and Appendix D. In general, habitat types include foraging, wintering, breeding, breeding and foraging, and secondary breeding and foraging.

3.2.10 Fully Protected Species and Lethal Take

Commenters suggested that loss of habitat, including loss of potential suitable breeding habitat, for the American peregrine falcon, bald eagle, golden eagle, and white-tailed kite, all California fully protected species, would result in cumulative “lethal take” due to displacement of individuals from their foraging areas, loss of potential breeding habitat, and a net loss of habitat.

It is the responsibility of the applicant to comply with state law, including the California Endangered Species Act (CESA) and fully protected species statutes. The Service is not responsible for interpreting or administering state laws and the issuance of a Federal ITP does not insulate an applicant from the requirements of state law. The potential effects of the TU MSHCP and ITP on raptors are analyzed in this Supplemental Draft EIS, and will be considered in the ESA Section 7 biological opinion issued in connection with the ITP application. The reader is directed to Master Response 8, Regulatory Considerations, for more detail regarding take issues, and Section 4.1.1.1, Regulatory Setting of this Supplemental Draft EIS, for additional discussion of relevant state and Federal laws.

3.2.11 Identification and Mitigation of Threats

One commenter indicated that, while the Draft TU MSHCP identified a suite of threats to raptors, none are comprehensively analyzed in the document, those threats will continue even within open space areas, and the document presents a “cookie-cutter” approach that fails to propose ways to avoid, minimize, or mitigate those threats.

The reader is directed to Master Response 4, Covered Species Threats and Potential Effects from Covered Activities, for a full discussion of how species threats and the potential effects of the Covered Activities are addressed in the TU MSHCP and this Supplemental Draft EIS. Master Response 4, Covered Species Threats and Potential Effects from Covered Activities, includes a matrix (Table MR4-2) that summarizes the threats to the Covered Species rangewide, and the potential indirect effects of the Covered Activities (e.g., effects of grazing, invasive species, urban runoff, etc.) as they relate to the species-specific threats, and summarizes the goals and objectives proposed to avoid, minimize, and mitigate the effects of the Covered Activities that would be authorized by an ITP. This section summarizes the approach of this Supplemental Draft EIS and the TU MSHCP to analyzing threats to the raptor Covered Species and generally discusses the goals and objectives to address the effects associated with the Covered Activities.

General threats to raptors and reasons for their decline are identified for each species in Section 3.1, Biological Resources, of Volume I of this Supplemental Draft EIS and Section 5.2.2, Birds, of the TU MSHCP. It should be noted that the reasons for decline of the species described in these sections are based on threats for the particular species identified throughout its range, as reported in the scientific literature, some of which may not occur in the Covered Lands. The potential effects on raptors in the Covered Lands as a result of Covered Activities are further analyzed in Section 4.1, Biological Resources, of this Supplemental Draft EIS, and Section 6.2.2, Birds, of the TU MSHCP. Avoidance, minimization, and mitigation measures are identified in both Section 4.1, Biological Resources, of this Supplemental Draft EIS and Section 7.1.1, Wildlife Species, of the TU MSHCP. For example, a main threat to the bald eagle identified in Section 3.1, Biological Resources, of this Supplemental Draft EIS and Section 5.2.2 of the TU MSHCP is dichlorodiphenyltrichloroethane (DDT) contamination, which causes thinning of eggshells and greatly lowers reproductive success. However, use of DDT is not a Covered Activity or expected to be used under the TU MSHCP, and therefore is not addressed further in the TU MSHCP. Conversely, human disturbance of nesting sites and potential wintering sites due to recreation and other human activities was also identified as a threat to the bald eagle. Because this species winters on the Covered Lands and construction and other human activities (e.g., passive and active recreation) could occur in proximity to perching and roosting sites during this period, these activities have the potential to affect this species. Biological goals and objectives for the bald eagle to avoid and reduce these effects would include conservation of diurnal perches and high-quality roost trees (Goal 3) and avoidance of disturbances of foraging and winter roosting habitat during construction activities (Goal 4). These examples demonstrate that the TU MSHCP does identify a range of potential threats to raptors, identifies those that could

occur in association with Covered Activities, and proposes measures to avoid and reduce effects associated with the Covered Activities.

As noted by the commenter, wind turbines, powerlines, and other physical structures have the potential to affect raptors as a result of collisions and electrocutions. These potential threats are addressed in detail in Master Response 1F, California Condor Collisions with Powerlines and Structures, in Volume 2 of this Supplemental Draft EIS; Section 4.1, Biological Resources, in Volume I of this Supplemental Draft EIS; and Section 4.4.1.4, Collisions With Powerlines and Artificial Structures, of the TU MSHCP. Under the TU MSHCP, restrictions on design and placement of antennae outside existing antenna farms would be required. All new antennae and phone towers would be designed and operated with antiperching devices. No wind farms would be constructed on Covered Lands or on the nearby Gorman Ranch, over which Tejon Ranchcorp (TRC) has a negative easement. Installation of wind turbines would be prohibited on all residential and commercial lots and on all TU MSHCP Mitigation Lands, except for individual turbines that serve the generation needs on site, and only if reviewed and approved by the Service. During their review, the Service would review the structure design to ensure that it would protect condors and raptors. No new aboveground high-voltage towers, transmission lines, or other aerial obstructions would be built in the TMV Planning Area or in the Covered Lands generally, unless approved by the Service. Permanent relocation of two existing high-voltage transmission lines and associated towers within 1,000 feet of existing facilities would be allowed as described in Chapter 2, Proposed TU MSHCP and Alternatives, in Volume I of this Supplemental Draft EIS, as long as the potential for effects on condors (and likely other raptors) would be avoided. In addition, as described in Section 4.4.1.5 of the TU MSHCP, structures in the TMV Planning Area would be low profile; that is, buildings would be in scale with the surrounding landscape and composed of structural forms fitted to the topography and natural surroundings, thus reducing the chances for collisions with buildings by other raptor species.

3.2.12 Burrowing Owl

One commenter indicated that no estimate of the number of burrowing owls that would be affected is provided in the TU MSHCP or EIS.

As described in Section 3.1, Biological Resources, in Volume I of this Supplemental Draft EIS, the burrowing owl may occur on the Covered Lands as an uncommon but likely regular winter visitor. An estimate of anticipated take of burrowing owl individuals is not presented because the species' use of the Covered Lands is intermittent and transitory. As described in Section 7.3.1, Compliance Monitoring, of the TU MSHCP, it is anticipated that the Service would measure the effects of such Covered Species in terms of "habitat acres affected by Covered Activities..." Specific measures described in Goal 4 for the burrowing owl would be implemented to avoid effects on any breeding owls, including preconstruction surveys, CDFG-approved evacuation and relocation methods, and setbacks from active nest burrows, as described above in this response.

At the conclusion of the NEPA and ESA processes, the Service will make an independent assessment of the effects of the Covered Activities on the Covered Species, including the burrowing owl, to determine potential levels of incidental take.

3.2.13 Golden Eagle

A commenter questioned how the goal of conserving all active golden eagle nests and accommodating the need for alternative nests is consistent with the statement in the Draft TU MSHCP that habitat loss would decrease the carrying capacity of the Covered Lands for one or two nesting pairs.

The comment regarding the number of nest sites on Covered Lands misinterprets the occurrence of nesting golden eagles on Covered Lands and, as a result, mischaracterizes the proportion of nest sites potentially affected by habitat loss. The comment states that there are three nesting golden eagle pairs on Tejon Ranch and that a 33% decrease in the nesting population would occur. Four nest sites were observed in the TMV Planning Area during focused surveys conducted in 2007, of which three were active (Dudek 2007). The TMV Planning Area accounts for approximately 28,253 acres (20%) of the 141,886-acre Covered Lands. Tejon Ranch is approximately 270,000 acres, so the TMV Planning Area is only about 10% of the entire Tejon Ranch. As described in Section 3.1, Biological Resources, of this Supplemental Draft EIS and Section 5.2.2.4.3, Occurrence Within the Covered Lands, of the TU MSHCP, golden eagle are expected to occur throughout Covered Lands in suitable habitat based on observations within the TMV Planning Area. That is, assuming home ranges of 5,000 to 8,000 acres, conservation of 61,763 acres of modeled breeding/foraging and modeled foraging habitat in Covered Lands could support an additional 8 to 12 pairs. As such, the loss of suitable habitat supporting one nesting pair on Covered Lands would actually affect from 6% to 11% of the potential nesting population, substantially less than 33% of the nesting population as stated in the comment. Under the Proposed TU MSHCP Alternative, conservation of golden eagle modeled habitat in Established Open Space, TMV Planning Area Open Space, and Existing Conservation Easement Areas would include 94% of modeled primary breeding habitat, 94% of modeled breeding/foraging habitat, and 91% of modeled foraging habitat (Table 4.1-3 in Volume I of this Supplemental Draft EIS). The combined high level of habitat conservation and the specific protections for active nest sites through project design standards and construction-related measures would maintain the golden eagle population on Covered Lands.

3.2.14 White-Tailed Kite

A commenter noted that the Draft TU MSHCP incorrectly summarized acreage losses for the white-tailed kite.

As described in Appendix D of this Supplemental Draft EIS, the modeled foraging habitat estimate for the white-tailed kite was revised after publication of the 2009 TU MSHCP to reflect changes in the model parameter for streams from the perennial stream data set. This adjustment of the model increased the modeled foraging habitat acreage from the 7,841 acres to 9,251 acres. Section 3.1, Biological Resources, in Volume I of this Supplemental Draft EIS and Section 5.2.2.11.3, Occurrence in the Covered Lands, of the TU MSHCP have been revised to amend this total modeled foraging habitat acreage for the white-tailed kite. With the adjusted model reflected in the Proposed TU MSHCP Alternative, a total of 1,874 acres (21%) of modeled foraging habitat would be permanently lost and 7,021 acres (78%) of modeled foraging habitat would be conserved in Established Open Space, TMV Planning Area Open Space, and Existing Conservation Easement Areas. Of the remaining 85 acres (1%), approximately 22 acres are in the Lebec/Existing Headquarters Area and approximately 63 acres are riparian vegetation that would be avoided. Sections 3.1, Biological Resources and 4.1, Biological Resources, in Volume I of this Supplemental Draft EIS have been revised to amend these totals for affected and conserved habitat, as have Sections 6.2.2.11.2 and 7.1.1.2.11 of the TU MSHCP.

A commenter also indicated that the perennial water sources associated with Castac Lake and Grapevine Creek are critical to the white-tailed kite's use of the Covered Lands because of the lack of perennial water sources elsewhere on Covered Lands. As recognized by the commenter, Castac Lake and Grapevine Creek would be preserved under the TU MSHCP. In addition, the TMV Project would not rely on groundwater, and the existing hydrology of Castac Lake and Grapevine Creek would not be significantly affected by implementation of that project. Potential indirect effects on the perennial water sources of Castac Lake and Grapevine Creek are addressed in Section 4.2, Water Resources, in Volume I of this Supplemental Draft EIS.

3.2.15 Bald Eagle

A comment characterized the elimination of 45% (662 acres) of bald eagle wintering habitat as a “significant” effect. The comment indicated that it is not clear whether the 45% loss of habitat is due to direct effects or if it includes indirect effects. The comment also suggests that the evaluation of effects on bald eagle foraging habitat does not include indirect effects because the effect on groundwater from the TU MSHCP on lake levels was not analyzed. In addition, the comment states a concern about human activity around Castac Lake, including activities on the lake itself, such as boating.

Section 4.1, Biological Resources, in Volume I of this Supplemental Draft EIS states that the Proposed TU MSHCP Alternative would result in the permanent loss of 839 acres (43%) of modeled habitat for the bald eagle in Covered Lands, including 834 acres (58%) of modeled wintering habitat and 5 acres (1%) of modeled foraging habitat. These are considered direct effects because they refer to the actual removal of habitat through clearing and grading activities. Avoidance, minimization, and mitigation measures to reduce these direct effects, as well as indirect effects associated with the Proposed TU MSHCP Alternative, would include preserving 42% (604 acres) of bald eagle wintering habitat and 99% (499 acres) of foraging habitat, preserving and enhancing preferred diurnal perches and high-quality roost trees associated with Castac Lake, and restricting human activity within 300 feet of such roost sites between late October and March. Please see the response provided above in Section 3.2.1, Buffers and Viewsheds, regarding setbacks for the bald eagle.

The concern regarding indirect effects on the perennial water sources of Castac Lake and Grapevine Creek and associated bald eagle foraging habitat (and how these relate to groundwater and lake levels) are addressed in Section 4.2, Water Resources, in Volume I of this Supplemental Draft EIS. The TMV Project, which would be adjacent to Castac Lake and Grapevine Creek, would not rely on groundwater for water supplies. Implementation of the TU MSHCP, which would include restrictions on groundwater use from the Ranchwide Agreement, would not result in effects on groundwater that could alter the lake levels and, by extension, foraging habitat for the bald eagle.

The comment regarding human activity around Castac Lake and in proximity to bald eagle perching, roosting, and foraging habitat is addressed above, in Section 3.2.1, Buffers and Viewsheds. A component of the TMV Project Approvals provided by Kern County requires that boating, swimming, or similar recreational activity be permanently prohibited on Castac Lake (Kern County 2009, Mitigation Measure 4.8-31). In 2009, the Tejon Ranch Conservancy approved the initial public access plan for Tejon Ranch, which sets a process by which public access activities will be reviewed and approved. Per the terms of the TU MSHCP, subsequent public access plans by the Tejon Ranch Conservancy or other easement holder in the TMV Planning Area Open Space, if applicable, must be reviewed and approved by the Service (in perpetuity). The public access plan(s) together with the Kern County provisions would benefit the bald eagle.