U.S. Fish & Wildlife Service
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825

California Department of
Fish & Game
P.O. Box 47
Yountville, California 94599

In reply refer to:
1-1-07-TA-0248

December 1, 2006

Mr. Rob Eastwood
Planning Office
Department of Planning and Development
County of Santa Clara
70 West Hedding Street
San Jose, California 95110-1705

Subject: Castro Valley Ranch Subdivision Draft Environmental Impact Report (SCH 2005092120) File No. 8668-69-14-03S-03EIR, Santa Clara County, California

Dear Mr. Eastwood:

This letter responds to the September 2006 Draft Environmental Impact Report for the Castro Valley Subdivision Project (DEIR) in Santa Clara County, California. The proposed project is located within the Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) Planning Area. We appreciate the extension of the comment period to December 6, 2006. The comments by the U.S. Fish and Wildlife Service (Service) and the California Department of Fish and Game (CDFG) are provided under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 *et seq.*) (FESA), the Service's Mitigation Policy of 1956, the California Endangered Species Act (California Fish and Game Code §§ 2050-2097) (CESA), and the California Environmental Quality Act (California Public Resources Code § 15000 *et seq.*) (CEQA). Our comments and recommendations are provided to assist you with your environmental review of the project and are not intended to preclude future comments from Service and CDFG.

The Service and CDFG's combined comments and recommendations are based on 1) the *Draft Environmental Impact Report, Castro Valley Ranch* (DEIR) including Appendices, dated September 2006; 2) the *Santa Clara Valley Habitat Conservation Plan and Natural Community Conservation Draft Chapters 1, 2, 3, and Appendices A, D, and F*, dated August 2006; and 3) other information available to us. In an electronic mail message to the County of Santa Clara dated November 2, 2006, the Service requested the County and/or the applicant provide the Service and CDFG with a field visit of the project site. However, to date, no response has been received by us. As such, the following comments are not based on a field visit.

The Service and CDFG are concerned that the DEIR does not fully address, 1) growth inducing effects, 2) wildlife corridors, 3) listed species, 4) special status species, and 5) cumulative impacts. These deficiencies are largely attributed to the narrow project description. In general, the impacts analyzed in the DEIR focus on direct effects on special status species. The Service and CDFG encourage the County to supplement the DEIR with an analysis of indirect growth inducing effects on covered species in the draft HCP/NCCP as well as federally listed species.

At issue are the potential adverse effects of the proposed project on the federally threatened vernal pool fairy shrimp (*Branchinecta lynchi*), threatened bay checkerspot butterfly (*Euphydryas editha bayensis*) (bay checkerspot), threatened California red-legged frog (*Rana aurora draytonii*) (red-legged frog), threatened California tiger salamander (*Ambystoma californiense*), (tiger salamander), endangered least Bell's vireo (*Vireo bellii pusillus*), endangered San Joaquin kit fox (*Vulpes macrotis mutica*), endangered Coyote ceanothus (*Ceanothus ferrisiae*), endangered Santa Clara Valley dudleya (*Dudleya setchellii*), endangered Metcalf Canyon jewelflower (*Streptanthus albidus* ssp. *albidus*), endangered Tiburon paintbrush (*Castilleja affinis* ssp. *neglecta*), endangered white-rayed pentachaeta (*Pentachaeta bellidiflora*), and endangered showy Indian clover (*Trifolium amoenum*).

Also at issue are several species that are not federally listed but are proposed to be covered species in the HCP/NCCP and/or are California Species of Special Concern. The DEIR addresses several of the covered species including the western pond turtle (*Clemmys marmorata*), burrowing owl (*Athene* [=*Spetylo*] *cunicularia*), and golden eagle (*Aquila chrysaetos),* also a State Fully Protected species. Proposed covered species and special status species that are not adequately addressed in the DEIR include: unsilvered fritillary butterfly (*Speyeria adiaste adiaste*), foothill yellow-legged frog (*Rana boylii*), tricolored black bird (*Agelaius tricolor)*, Townsend's western big-eared bat (*Corynorhinus townsendii townsendii*), San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), American badger (*Taxidea taxus*), big-scale balsamroot (*Balsamorhiza macrolepis*), chaparral harebell (*Campanula exigua*), Mount Hamilton thistle (*Cirsium fontinale* var. *campylon),* fragrant fritillary (*Fritillaria liliacea*), Loma Prieta hoita (*Hoita strobilina*), smooth lessingia (*Lessingia micradenia* var. *glabrata*), and most beautiful jewelflower (*Streptanthus albidus* ssp. *peramoenus*).

Section 9 of the FESA prohibits the take of any federally listed animal species by any person subject to the jurisdiction of the United States. As defined in the FESA, "take" is defined as "...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." "Harm" has been further defined to include habitat destruction when it injures or kills a listed species by interfering with essential behavioral patterns, such as breeding, foraging or resting. The FESA prohibits activities that "...remove and reduce to possession any listed plant from areas under Federal jurisdiction; maliciously damage or destroy any such species on any such area; or remove, cut, dig up, or damage or destroy any such species on any other area in knowing violation of any law or regulation of any State or in the course of any violation of a State criminal trespass law." The term "person" is defined as "...an individual, corporation, partnership, trust, association, or any other private entity; or any officer, employee,

agent, department, or instrumentality of the Federal government, of any State, municipality, or political subdivision of a State, or any other entity subject to the jurisdiction of the United States."

Take incidental to an otherwise lawful activity may be authorized by one of two procedures under the FESA. If a federal agency is involved with the permitting, funding, or carrying out of the project and a listed species is going to be adversely affected, then initiation of formal consultation between that agency and the Service pursuant to section 7 of the FESA is required. Such consultation would result in a biological opinion addressing the anticipated effects of the project to the listed species and may authorize a limited level of incidental take. If a federal agency is not involved in the project, and federally listed species may be taken as part of the project, then an incidental take permit pursuant to section 10(a)(1)(B) of the FESA should be obtained. The Service may issue such a permit upon completion of a satisfactory conservation plan for the listed species that would be taken by the project.

The Castro Valley Ranch Subdivision Project is considered an interim project under the HCP/NCCP Planning Agreement (County of Santa Clara *et. al.* 2005). The Planning Agreement states that "The Parties agree that potential conflicts with the preliminary conservation objectives shall be identified during the Interim Process to help achieve the preliminary conservation objectives, not preclude important conservation planning options or connectivity between areas of high habitat values, and help guide and ensure development of a successful Plan that incorporates these interim project" (County of Santa Clara *et. al.* 2005).

Description of Project

The 8,400-acre Castro Valley Ranch property is located west of Highway 101 between Castro Valley Road and Whitehurst Road near Gavilan College, southwest of the City of Gilroy in Santa Clara County, California. The property is currently comprised of 16 legal parcels ranging from 5.5 to 2,209 acres in size. Under the proposed project, the existing parcels would be reconfigured into 16 parcels ranging from 182 to 2,412 acres in size. The project also includes widening and improving the existing access road. The existing 8.5 mile access road, which extends from Santa Teresa Boulevard to Whitehurst Road, will be improved to County standards and will serve most of the parcels. The existing road is 12 to 15 feet wide and is paved from Highway 101 to approximately the center of the project area. The remainder of the main roadway is dirt. Many of the roadway sections will cross steep slopes, requiring cutting and filling to create embankments and/or the use of retaining walls. Segments of the proposed paved road will range from12 to 24 feet in width.

The Service and CDFG request that the County of Santa Clara clarify the number of houses that could be constructed on both the existing and proposed parcel configurations. The DEIR does not identify the number of houses that could be constructed on each of the existing lots. The DEIR states that two of the existing lots may not be buildable and an additional six lots are problematic in that respect. Under the existing condition, it is not clear if 48 homes could be

approved on the existing lots. The DEIR is also unclear on the number of houses that could be constructed on each of the reconfigured parcels. For example, page 4 of the DEIR states that "...this EIR assumes that each parcel will be developed with a single-family house, several accessory buildings, a secondary residence, and septic system with leach fields" (County of Santa Clara 2006). However, the DEIR states that 48 residential housing units could be constructed in the project area under the current General Plan. Finally, page 17 of the DEIR indicates that the current Santa Clara County General Plan "allows two single-family houses per parcel" (County of Santa Clara 2006).

We also request that the revised project description address the types of development and activities that could be reasonably expected on the reconfigured lots. For example, some land uses, such at vineyards and equestrian use, may not require any type of local authorization. As such, significant effects resulting from these types of activities may go unevaluated by the Service and CDFG. If applicable, please revise the DEIR to include an analysis of these types of land use activities that may occur as a result of the proposed subdivision.

Growth Inducing Effects on Listed Species and Wildlife

Land use conversion is often incremental, with seemingly subtle effects on natural habitat; however, land use changes also may result in significant cumulative impacts to listed species and wildlife. According to the DEIR, the current project will not result in the change of land use zoning in the project area. Under this assumption, the proposed project will result in an "exurban" development, a low-density development outside the urban growth boundary. The proposed project could result in a scattering of up to three structures per parcel. According to Hilty *et al.*, exurban development requires a tremendous amount of land to support it. As a result, ten times the amount of land in the United States was converted to low-density development in 2000 as compared to lands converted to urban density development (Hilty *et al.* 2006). Urban areas, including traditional dense suburban areas, only account for 1.7 percent of land and support approximately 55 percent of the population (Hilty *et al.* 2006). Conversely, rural areas, similar to what would likely result from the proposed project, represent 84 percent of land area and contain only 8 percent of the population (Sutton *et al.* 2006). Aside from the extensive exurban development that could result from the proposed project, the proposed road improvements would result in growth inducement by providing access to the realigned parcels which may support up to 48 residential development units and intensify on-going agricultural activities, recreation, and timber harvesting pressures. In addition, since the newly improved road connects to other properties to the west of the Castro Valley Ranch, it is not clear if the improvements will allow increased development in those areas as well.

The Service and CDFG consider projects that provide the infrastructure necessary to accommodate future urbanization, such as roads, power transmission lines, water delivery pipelines, wastewater disposal pipelines, etc., as growth inducing projects which may have indirect impacts on species protected by the FESA and CESA since these projects may result in habitat loss and fragmentation and other adverse effects. As such, the scope and breadth of analysis of the effects of the proposed project on listed species and wildlife contained in the

DEIR is too narrow. The road improvement and lot realignment would facilitate several growth inducing scenarios that could include 1) rezoning to allow more intense development and 2) selling and further subdividing parcels that are no longer land locked. The Service and CDFG recommend that the project objectives be re-analyzed to include such foreseeable project outcomes. The proposed project appears to be intended to facilitate growth in the southern portion of Santa Clara County, and it will have indirect impacts on the environment and on listed species far beyond the immediate, direct impacts of the lot realignment and road improvement project.

The primary impact of the proposed action is the future development of the entire 8,400-acre ranch. In accordance with CEQA Guidelines Section 15168, the proposed Castro Valley Ranch Subdivision project is appropriately analyzed under a "Program Environmental Impact Report" (Program EIR) because the proposed subdivision constitutes a series of actions that can be characterized as one large project and are related: 1) geographically; 2) as logical parts in a chain of contemplated actions; 3) in connection with issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program; or 4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

The purpose of a Program EIR is to focus attention on those components of a project or plan that could result in significant adverse environmental impacts. Subsequent actions under the program must be examined in light of the Program EIR to determine whether an additional environmental document must be prepared. A Program EIR, therefore, serves as a foundation for subsequent environmental documentation and/or clearance, and can be used to simplify the task of preparing environmental documents on subsequent parts of the program. Future project-level environmental documents analyzing specific development projects under the proposed subdivision program, can be "tiered" off of this analysis. The Service and CDFG agree that this approach is appropriate, and we further note that use of a programmatic EIR is precisely the document which should be used to analyze broader issues associated with the original baseline condition and to propose mitigation measures to compensate for any identified impacts, as described in numbers 1 and 4 below. According to the CEQA Guidelines [Section 15168(b)], a Program EIR can provide the following advantages:

1. Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action;
2. Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis;
3. Avoid duplicative reconsideration of basic policy considerations;
4. Allow the lead agency to consider broad policy alternatives and program-wide mitigation measures at the earliest possible time when the agency has greater flexibility to deal with basic problems or cumulative impacts; and
5. Allow a reduction in paperwork.

The Service and CDFG do not concur with the County of Santa Clara's assertion that mitigation for future residential development must be determined at the time of proposed development. Although we understand that impacts will need to be refined once project details are available, we believe the County of Santa Clara is currently in the position to place restrictions or conditions on future development of the 8,400-acre Castro Valley Ranch property. The first step in mitigation sequencing is avoidance. Minimization and mitigation are secondary to avoidance. As such, we recommend that the County of Santa Clara be proactive in protecting one of the largest pieces of contiguous open space and wildlife habitat in the this region of Santa Clara, Santa Cruz, and San Benito counties by placing a conservation easement on the property. Easement restrictions could include, but are not limited to: prohibiting further subdivision of parcels; maintaining the current zoning restrictions; and managing the property for listed species, other wildlife, and natural communities, such as redwood forest, oak woodland, and riparian scrub.

Wildlife Corridors

The on-going loss and reduction in habitat connectivity and movement corridors that are utilized by both listed species and non-listed proposed covered species in the Santa Clara Valley is of concern to the Service and CDFG. The discussion and analysis of wildlife movement and corridors in the DEIR is inadequate. The proposed project will likely adversely impact the movement of a number of species of animals, including, but not limited to, black-tailed deer (*Odocoileus hemionus*), mountain lion (*Felis concolor*), bobcat (*Lynx rufus*), American badger, gray fox (*Urocyon cinereoargenteus*), and San Francisco dusky-footed woodrat. The adverse impacts will likely include the reduction of habitat, fragmentation of habitat, inadequate buffer zones, increased injury and mortality due to vehicle strikes, and increased predation by domestic and feral house cats (*Felis catus*) and dogs (*Canis familiaris*). Inadequate wildlife corridors can also be problematic because they may lead to differential use of the corridors, leading to changes to natural community composition over time and may allow non-native species a competitive advantage over native species. However, the width and necessary characteristics of a useable wildlife corridor have not been fully documented. One study in southern California found that mountain lion corridors needed to be located along natural travel routes, contain ample woody cover, lack artificial outdoor lighting, and have less than one human dwelling unit per 16 ha (Beir 1995). The width of wildlife corridors in several studies have varied from 300 feet to more than 5 km, depending upon the species, type of habitat, and other factors; and there is general agreement that the longer the corridor, the wider it needs to be for animals to effectively move through it (Andreassen *et al.* 1996; Beier and Noss 1998; Beier and Loe 1991; Danielson and Hubbard, 2000; Haddad, 1999; Rosenburg, *et al.* 1997).

The effects of the loss or reduction in wildlife corridors on the mountain lion population in the Santa Cruz Mountains provide an example of the importance of corridors in general (Ng *et al.* 2004; Beir 1993; Foster and Humphrey 1995) and, specifically, the importance of the Castro Valley Ranch. These large cats often are used in corridor analysis because they have large core areas or home ranges, they are sensitive to human interference and disturbance, they are

susceptible to habitat fragmentation, and they are often used as "umbrella species" (conserving their biological needs and ecological requirements also benefit other plant and animal species) (Thorne *et al.* 2006).

Mountain lion populations are assumed to require a minimum area of approximately 544,000 acres to be considered self-sustaining (Beier 1993). If a population becomes isolated in an area smaller than 544,000 acres, without any immigration from other populations, the population likely will become extinct due to problems including inbreeding and a lack of adequate births to animals within the population, etc. This makes the Castro Valley Ranch important for two reasons. First, the mountain lion population in the Santa Cruz Mountains currently inhabits an area of less than 544,000 acres, and second, there are only two known movement corridors into this area from other populations of this species. One of the known movement corridors connects the Santa Cruz Mountains to the Diablo Range via Coyote Valley in an east/west direction. The second known movement corridor connects the Santa Cruz Mountains to the Gabilan Range, located south of the project area (e.g. Thorne *et al.* 2002). Thorne *et al.* 2002 identified this southern corridor as the best and possibly only remaining linkage connecting mountain lions to the Santa Cruz Mountains. Thorne *et al.* also indicated that the southern corridor is likely the most at risk due to the encroaching urban development (2002). The Castro Valley Ranch is located in the Santa Cruz Mountains/Gabilan Range corridor.

While Thorne e*t al.* 2002 specifically examined the importance of corridors for mountain lions in the Santa Cruz Mountains, other wildlife, such as blacktail deer and bobcats, utilize these corridors as well. The requirement of the various species for effective corridors will vary tremendously depending upon their biology, ecology, and behavior, possibly increasing the necessary width for multi-generational migrants. The Service and CDFG disagree with the County of Santa Clara's assertion that the proposed project would not significantly impede wildlife movement through the Castro Valley Ranch. The proposed road improvements and subsequent development of the 8,400-acre Castro Valley Ranch likely would preclude connectivity between areas of high habitat values. According to the DEIR, the proposed roadway will impact 20 acres of non-riparian coast live oak forest, 1.9 acres of valley oak woodland, 1.6 acres of wetlands and drainages, and 0.9-acre of riparian woodland/coast live oak forest. The Castro Valley Ranch occupies part of an important wildlife corridor for animals moving to and from Santa Cruz Mountains into other regions of the State, and the future development pattern on the Castro Valley Ranch Subdivision, as proposed, has the potential to cause significant, regional impacts.

Habitat connectivity and wildlife migration cannot be adequately evaluated on an individual basis in subsequent, more focused environmental reviews. Habitat connectivity and wildlife migration issues occur at the landscape level, thus meaningful analysis and mitigation must occur at the landscape level as well. Subsequently, the potential impacts of relocating parcel lines to accommodate future development should be fully evaluated now. This is particularly important because the most appropriate form of mitigation in this scenario is avoidance through modification of the proposed development layout, an option that may no longer be viable once the project is implemented as proposed. A conservation strategy has not been finalized for the

HCP/NCCP, however, the exurban development, and foreseeable urban development, of the 8,400 acre project acre will likely obstruct or eliminate a corridor for listed species and wildlife between the Diablo Range and the Santa Cruz Mountains. Therefore, we recommend that the DEIR be revised to fully and adequately evaluate this issue and include appropriate mitigation measures, possibly including revision of parcel configurations; limitations on the types of development, including those that may not require future discretionary approval; and the use of conservation easements to maintain the habitat value for movement of wildlife in perpetuity.

Federally Listed Species

We are concerned about a number of potential adverse effects on listed species that include, but are not limited to: 1) damage or destruction of their habitat; 2) increased concentrations of toxic effluents and increased sedimentation due to roadway and urban run-off; 3) altered hydroperiod (increased run-off) that may result in the conversion of perennial swales and wet meadows to permanent ponds, facilitating the proliferation of non-native predators, such as bullfrogs (*Rana catesbeiana*); 4) elimination of hydrologic connection supporting at least 3 wetlands; 5) death or injury due to vehicle strikes; 6) harassment and/or capture by future residents, especially children; 7) additional water runoff from the establishment of hard surfaces may lead to the creation of small ephemeral water bodies that attract breeding California red-legged frogs and California tiger salamanders but may not hold water long enough to support these species through the completion of their metamorphosis; 8) toxic effects of herbicides and pesticides used in the proposed project area; 9) introduction or increased susceptibility to disease, such as chytrid fungus, due to increased human use of the site; 10) street or other high intensity night lights may affect the behavior, biology, and ecology of nocturnal animals, such as foxes, bats, frogs, and salamanders (Beier 2006; Rydell 2006; Buchanan 2006; Wise and Buchannan 2006); 11) introduction of non-native predators, such as red fox (*Vulpes vulpes*); 12) death or injury resulting from construction activities; and 13) introduction of non-native plants that may degrade or eliminate native habitat.

The DEIR does not adequately address project related effects on vernal pool fairy shrimp, bay checkerspot, red-legged frog, tiger salamander, least Bell's vireo, San Joaquin kit fox, Coyote ceanothus, Santa Clara Valley dudleya, Metcalf Canyon jewelflower, Tiburon paintbrush, white-rayed pentachaeta, and showy Indian clover. Although direct effects resulting from the roadway project is discussed for some of these listed species, the DEIR fails to adequately address indirect effects resulting from the low-density development that will likely result under the current General Plan. The DEIR also does not adequately analyze growth inducing affects that would result from more intense urbanization, which is a reasonably foreseeable outcome of the proposed project. Our specific comments follow:

1. Vernal pool fairy shrimp: This species is known to occur in vernal pools or vernal pool-like habitats (Service 2005); the animal occupies a variety of vernal pool habitats, from clear pools in sandstone rocks to turbid or alkaline pools in grasslands. Although the vernal pool fairy shrimp has been collected from large vernal pools, including one

exceeding 25 acres, it tends to occur in smaller pools. It is most frequently found in pools measuring less than 0.05-acre. They occur most commonly in grass or mud bottomed swales, or basalt flow depression pools in unplowed grasslands (Service 2005). The DEIR indicates that there is a total of 46.9 acres of seasonal and perennial wetlands at the Castro Valley Ranch. Although the DEIR indicates that these wetlands may provide breeding habitat for vernal pool fairy shrimp, it does not analyze project effects on the threatened species nor does it discuss avoidance and minimization measures. The Service recommended that the County conduct habitat evaluations and/or surveys, as appropriate, for the species in a letter dated October 19, 2005 (1-1-06-TA-0054). There is no indication that protocol level surveys were carried out for the vernal pool fairy shrimp in the DEIR. Instead, surveys for onsite wetlands, but not the listed crustacean, were conducted during the dry season (County of Santa Clara 2006), when it was not possible to observe active hydrology. At this time, the Service and CDFG do not have enough information to analyze project impacts on the vernal pool fairy shrimp. We recommend that protocol surveys for this threatened species be completed in the action area and the written results submitted to us for review and comment.

2. Bay checkerspot butterfly: The Service and CDFG disagree with the County of Santa Clara's assertion that the threatened bay checkerspot is absent from the action area. Populations of this threatened animal have been documented in the Gilroy area. In addition, animals were intentionally released at 38 sites that contain serpentine grassland in Santa Clara County (Harrison 1989). It is not know if any of these resulted in the establishment of permanent populations; however, bay checkerpsot butterflies were observed at 4 of the 38 sites two years after the releases occurred (Harrison 1989). Bay checkerspot butterflies were released at, and in the vicinity of, the O'Connell Ranch (letter from Dennis Murphy to Fenton O'Connell dated April 7, 1988; letter from Dennis Murphy and Susan Harrison to Jack Shank dated April 7, 1988). The DEIR fails to analyze project effects on bay checkerspot and its serpentine habitat on Castro Valley Ranch.

   The bay checkerspot butterfly and its habitat could be degraded by automobiles emitting nitrogen compounds (both NO_x and ammonia) into the air. Serpentine soils are extremely nitrogen-poor, and plants native to these soils are adapted to this condition. Nitrogen compounds are deposited on soils and vegetation from the air during rainfall and dry season conditions. This deposition artificially fertilizes serpentine soils, creating better conditions for non-native species. Non-native annual grasses grow rapidly, enabling them to out-compete the native species. The displacement of serpentine endemic plant species and subsequent decline in the bay checkerspot butterfly and its hostplants (*Plantago erecta*, *Castilleja exserta*, or *Castilleja densiflora)* has been documented on Coyote Ridge (Weiss 1999). Depending on the impact of nitrogen deposition, air pollution may present an extreme threat to the bay checkerspot butterfly in southern Santa Clara County, since several populations in this area are vulnerable to air pollution effects. The County of Santa

Clara estimated that there are currently 96 daily vehicle trips in the project area. Assuming maximum build out under the current General Plan, the County estimated that vehicle trips would increase to 459 trips daily (County of Santa Clara 2006). In other words, under the current General Plan, daily vehicular trips will increase approximately 5-fold as a result of the construction of the 48 residential housing units which likely will increase the ambient nitrogen concentration by nearly 500% resulting in adverse effect to the potential serpentine grassland habitat of the bay checkerspot butterfly. The Service and CDFG recommend that the project area be adequately surveyed for bay checkerspot butterfly and its serpentine grassland habitat and the results be submitted to us for review.

3. California red-legged frog: The proposed project likely will result in take of the California red-legged frog. The majority of the newly aligned parcels would include aquatic and/or upland habitat of this threatened species. The Service and CDFG do not concur with the DEIR, which states that breeding habitat for the California red-legged frog would not be disturbed during road construction at the proposed project (County of Santa Clara 2006). There are 6 documented occurrences of the California red-legged frog on the Castro Valley property (CNDDB 2006). The Service and CDFG are concerned about the effects of the three proposed bridge crossings over the Tar and Pescadero creeks on this listed amphibian. The DEIR indicates that aquatic habitat varies seasonally and annually in these creeks. Both of these creeks also apparently support the threatened Central Coast steelhead (*Oncorhynchus mykiss*) and other fish. Steelhead migration typically occurs in late fall or early winter, spawning typically occurs between December and June, and hatching occurs later in the summer. Thus, water depths in some segments of these creeks will likely be deep enough to support red-legged frog during the November through April breeding season.

   We disagree with the County's assertion that impacts to upland and dispersal habitat of the California red-legged frog would be insignificant or discountable. The roadway likely will result in take by increasing vehicle traffic during periods when subadults and adults are moving through upland habitats. Furthermore, the DEIR indicates that 4 of the proposed crossings would not be culverted, and the proposed road alignment at crossings 1, 7, 13, and 18 (Santa Clara 2006) likely would permanently sever hydrologic connectivity at these sites. These sites likely contain dispersal habitat for the California red-legged frog. We recommend that protocol surveys for the California red-legged frog be completed in the action area and the results submitted to us for review.

4. California tiger salamander: Due to their overlapping aquatic and terrestrial habitat requirements with the California red-legged frog, the proposed project would have similar impacts on the California tiger salamander. The majority of the newly aligned parcels would include California tiger salamander aquatic and/or upland habitat. Although it is unlikely this species occurs in creeks or their tributaries, the animals likely breed in some or all of the seasonal wetlands that would be impacted by the

proposed roadway project. California tiger salamanders are known to breed near the Bluestone Quarry. Additionally, the species was found breeding in a pond less than one mile northeast of the project area (County of Santa Clara 2006). We recommend that protocol surveys be completed for the California tiger salamander in the action area and the results provided to us for review.

5. Least Bell's vireo: The Service and CDFG disagree with the County's assertion that the endangered least Bell's vireo is absent from the action area. The least Bell's vireo survey guidelines apparently were not completed for this riparian endangered bird. The species was observed in June 2006 along Coyote Creek near the Coyote Creek Golf Course (T. Rahmig pers. comm. with M. Thomas of the Service, November 16, 2006; Jones & Stokes 2006). In addition, the CNDDB (2006) contains a record of 1-2 individuals that were observed in 1997 along Llagas Creek, from Highway 152 to the confluence of the Pajaro River. Three adults were also observed in May 2001 on Llagas Creek (CNDDB 2006). The project is located almost entirely in the Santa Cruz Mountains and includes well developed riparian habitat along portions of the Tar Creek and Pescadero Creek (County of Santa Clara 2006; H.T. Harvey 2006). According to H.T. Harvey, the best representation of riparian habitat within the project area is located along the Tar Creek, adjacent to the proposed road alignment. The least Bell's vireo is a proposed covered species in the HCP/NCCP, and the distribution model for this animal in the draft HCP/NCCP considers the Pajaro River/Uvas Creek/Llagas Creek watershed suitable breeding and foraging habitat for the species due to the presence of dense riparian corridors (Jones & Stokes 2006). The current species model indicates that the majority of suitable least Bell's vireo habitat in Santa Clara Valley occurs in the southern portions of the County, with a high concentration along the tributaries in the Santa Cruz Mountains (Jones & Stokes 2006). The riparian habitat present on the Castro Valley site may provide a movement corridor for the species across the valley floor into the Santa Cruz Mountains. We recommend that protocol surveys for the least Bell's vireo be completed in the action area and the results presented to us for review.

6. San Joaquin kit fox: Based on the information currently available to us, the Service and CDFG disagree with the County's assertion that the endangered San Joaquin kit fox is absent from the action area. The species has been reported in the vicinity of Santa Clara County in habitat similar to that which occurs in, and immediately adjacent to, the proposed project. CNDDB occurrence # 11, located approximately 9 miles east of the project area, identified a family of 4 San Joaquin kit fox (CNDDB 2006). This listed canine is known to move up to 9 miles in a single night. The project area contains California annual grassland which could provide habitat for the species. We recommend that northern range protocol surveys for the San Joaquin kit fox be completed in the action area and the results submitted to us for review.

7. Coyote ceanothus: The Service recommended that the County of Santa Clara conduct habitat evaluations and/or surveys for the Coyote ceanothus in a letter dated October 19, 2005 (1-1-06-TA-0054). The DEIR does not adequately address this listed plant.

This endangered species blooms from January through March (Service 2006). Therefore, surveys conducted by H.T. Harvey during the months of August and September 2005 do not support the contention that the species does not occur in the action area. Coyote ceanothus occurs on serpentine soils and it has been documented approximately 10 miles north of the project area, along Llagas Avenue, north of Morgan Hill (CNDDB 2006). The Service and CDFG do not concur with the assumption that the proposed 1:1 mitigation ratio for rare plant populations would reduce vegetative impacts to a less than significant level. Coyote ceanothus is an extremely rare species. A portion of mitigation plantings typically fails due to stochastic events (flood, drought, etc.), grazing (i.e., live stock, wildlife), inappropriate landscape design (i.e., inappropriate slope, soil content, irrigation, water table level), and vandalism. Moreover, the species is often found in serpentine soils, further challenging successful mitigation. The proposed 1:1 mitigation ratio inappropriately assumes that 100% of the rare plant mitigation plantings would survive. As such, we recommend that protocol surveys be completed for the coyote ceanothus in the action area and the results, and avoidance and mitigation measures, if appropriate, be provided to us for review. The Service and CDFG will analyze the relative importance of populations found on-site in order to determine if the proposed mitigation is appropriate for the species. We also recommend that all mitigation occur on-site.

8. Santa Clara Valley dudleya: The Service recommended that the County of Santa Clara conduct habitat evaluations and/or surveys for the Santa Clara Valley dudleya in a letter dated October 19, 2005 (1-1-06-TA-0054). The DEIR does not adequately address this listed plant. This endangered species blooms from April through June (CNPS 2006; Service 2006). Therefore, surveys conducted by H.T. Harvey during the months of August and September 2005 do not support the contention that the species does not occur in the action area. Santa Clara Valley dudleya occurs on serpentine soils and it has been documented approximately four miles northwest of the project area, in Mount Madonna County Park (CNDDB 2006). For the reasons previously described for the Coyote ceanothus, the Service and CDFG do not concur with the assumption that the proposed 1:1 mitigation ratio for rare plant populations, would reduce vegetative impacts to a less than significant level. We recommend that protocol surveys be completed for the Santa Clara Valley dudleya in the action area and the results, and avoidance and mitigation measures, if appropriate, be provided to us for review

9. Metcalf Canyon jewelflower: The Service recommended that the County of Santa Clara conduct habitat evaluations and/or surveys for the Metcalf Canyon jewel flower in a letter dated October 19, 2005 (1-1-06-TA-0054). The DEIR does not adequately address this listed species. This endangered plant blooms from April through June (CNPS 2006; Service 2006). Therefore, surveys conducted by H.T. Harvey during the months of August and September 2005 do not support the contention that the species does not occur in the action area. For the reasons previously described for the Coyote ceanothus, the Service and CDFG do not concur with the assumption that the

proposed 1:1 mitigation ratio for rare plant populations, would reduce vegetative impacts to a less than significant level. We recommend that protocol surveys be completed for the Metcalf Canyon jewelflower in the action area and the results, and avoidance and mitigation measures, if appropriate, be provided to us for review

10. Tiburon paintbrush: The Service recommended that the County of Santa Clara conduct habitat evaluations and/or surveys for the Tiburon paintbrush in a letter dated October 19, 2005 (1-1-06-TA-0054). The DEIR does not adequately address this listed species. This endangered plant blooms from April through June (CNPS 2006; Service 2006). Therefore, surveys conducted by H.T. Harvey during the months of August and September 2005 do not support the contention that the species does not occur in the action area. Tiburon paintbrush grows in serpentine bunchgrass communities on north to west facing slopes. The draft HCP/NCCP designated the Tiburon paintbrush as a "no take" species. That is, due to the extreme rarity of the species, the draft HCP/NCCP proposes that there be no adverse affects to the species. For the reasons previously described for the Coyote ceanothus, the Service and CDFG do not concur with the assumption that the proposed 1:1 mitigation ratio for rare plant populations, would reduce vegetative impacts to a less than significant level. We recommend that protocol surveys be completed for the Tiburon paintbrush in the action area and the results, and avoidance and mitigation measures, if appropriate, be provided to us for review

11. White-rayed pentachaeta: The Service recommended that the County of Santa Clara conduct habitat evaluations and/or surveys for the white rayed pentachaeta in a letter dated October 19, 2005 (1-1-06-TA-0054). The DEIR does not adequately address this listed plant. This endangered plant blooms from March through May (CNPS 2006; Service 1998). Therefore, surveys conducted by H.T. Harvey during the months of August and September 2005 do not support the contention that the serpentine species does not occur in the action area. Suitable habitat is present at the project site. For the reasons previously described for the Coyote ceanothus, the Service and CDFG do not concur with the assumption that the proposed 1:1 mitigation ratio for rare plant populations would reduce vegetative impacts to a less than significant level. We recommend that protocol surveys be completed for the white-rayed pentachaeta in the action area and the results, and avoidance and mitigation measures, if appropriate, be provided to us for review

12. Showy Indian clover: The Service recommended that the County of Santa Clara conduct habitat evaluations and/or surveys for the showy Indian clover in a letter dated October 19, 2005 (1-1-06-TA-0054). The DEIR does not adequately address this listed plant. This endangered plant blooms from April to June (CNPS 2006; Service 2006). Therefore, surveys conducted by H.T. Harvey during the months of August and September 2005 do not support the contention that the species does not occur in the action area. The species was historically found in a variety of habitats including low, wet swales, grasslands, and serpentine soils. The DEIR indicates that the species may occur within serpentine grasslands in the project area (Santa Clara,

2006). For the reasons previously described for the Coyote ceanothus, the Service and CDFG do not concur with the assumption that the proposed 1:1 mitigation ratio for rare plant populations would reduce vegetative impacts to a less than significant level. We recommend that protocol surveys be completed for the showy Indian clover in the action area and the results, and avoidance and mitigation measures, if appropriate, be provided to us for review.

Proposed Covered Species in the Draft HCP/NCCP and Other Special Status Species

As an interim project, the proposed Castro Valley Ranch Subdivision project should be assessed for direct and indirect effects on proposed covered species in the draft HCP/NCCP. The DEIR addresses potential impacts and mitigation measures with regard to the roadway for three covered species: western pond turtle, burrowing owl, and golden eagle. However, the Service and CDFG consider the future development induced by the proposed project as a reasonably foreseeable outcome. As such, we recommend that the DEIR be revised to address the growth inducing impacts of development on these three species and incorporate avoidance and mitigation measures for each species as appropriate.

In addition, the DEIR does not adequately address direct and indirect effects and appropriate avoidance and minimization measures for the species: unsilvered fritillary butterfly, foothill yellow-legged frog, tricolored black bird, Townsend's western big-eared bat, San Francisco dusky-footed woodrat, American badger, big-scale balsamroot, chaparral harebell, Mount Hamilton thistle, fragrant fritillary, loma prieta hoita, smooth lessingia, and most beautiful jewelflower. Although some of these species are briefly discussed in the DEIR, the impact analysis for them is inadequate. Most of the species discussed below are plants. However, the impacts analysis was based on reconnaissance-level surveys conducted in August and September of 2005, which is an inappropriate time of year for most plant surveys. Many of the plant species occur on serpentine soils. The DEIR lacks an analysis regarding nitrogen deposition from increased vehicular traffic (see bay checkerspot comments in this letter). The Service and CDFG recommend that the County of Santa Clara add site-specific data on these species in the DEIR after appropriate protocol or approved surveys are conducted. We also recommend that the DEIR include an analysis of indirect and direct effects on the species and appropriate mitigation measures to ensure that the proposed project does not preclude the developing HCP/NCCP.

1. Unsilvered fritillary butterfly: The larval host plant of this animal is violet (*Viola* species) and it has been observed in the Morgan Hill area. The unsilvered fritillary butterfly is highly sensitive to urban development and other human activities. We recommend that protocol surveys be completed for it in the action area and the results, and avoidance and mitigation measures, if appropriate, be provided to us for review.

2. Foothill yellow-legged frog: The biological report indicated that suitable habitat for the foothill yellow-legged occurs in Pescadero Creek, Tarr Creek, and their drainages in the project area (H.T. Harvey 2006). H.T. Harvey also summarized the distribution of the species for the Santa Clara Valley Water District and concluded that the species is still present in the Santa Cruz Mountains and is fairly abundant in the foothill and

mountain ranges of eastern Santa Clara County (Jones & Stokes 2006; H.T. Harvey 1999). The mitigation measures for this species in the DEIR include scheduling work when the streams are dry and the frog is unlikely to be present, relocation of individual frogs if approved by the wildlife agencies, and early morning monitoring followed by the erection of silt fences if individuals are found. However, it is not possible to evaluate the adequacy of the proposed mitigation due to a lack of information on the status of this species in the action area. Surveys for the foothill yellow-legged frog following Service and CDFG recommendations should be completed in the action area, and the results and avoidance measures and mitigations and submitted to us for review.

3. Tricolored blackbird: Emergent vegetation around some of the ponds at the project site provide potential habitat for the species (County of Santa Clara 2006). Tricolored blackbird colonies were documented south of Castro Valley Ranch near the confluence of Sargent Creek and San Benito County (CNDDB 2006). H.T. Harvey (2006) indicated that the species could breed in suitable habitat around some of the large ponds on the project area. The tricolored black bird distribution model contained in the draft HCP/NCCP indicates that the Castro Valley Ranch has both breeding and foraging habitat for the species (Jones & Stokes 2006). Although the DEIR acknowledges that the species may be present in the project area, it does not adequately analyze project related impacts to the species nor does it propose appropriate minimization and mitigation measures. Surveys for the tri-colored blackbird following Service and CDFG recommendations should be completed in the action area. Survey results, avoidance measures, and mitigation measures should be submitted to us for review.

4. Townsend's western big-eared bat: The species is a proposed covered species in the draft HCP/NCCP. It occurs in desert scrub, mixed conifer forest, pinon-juniper forest, and pine forest habitat (Pierson *et al.* 1991). The species typically prefers cold, quiet habitat with little disturbance (Humphrey and Kunz 1976; Zeiner *et al.*1990). The project area is located at the southern terminus of the Santa Cruz Mountains and elevations range from approximately 160-4,620 feet on the ridge northwest of Wildcat Canyon. Surveys for Townsend's big-eared bat and their roost sites following Service and CDFG recommendations should be completed in the action area. Survey results, avoidance measures, and mitigation measures should be submitted to us for review.

5. San Francisco dusky-footed woodrat: The Service and CDFG concur with the threshold defined by the DEIR of impacts to more than one San Francisco dusky-footed woodrat nest by a single project as being considered significant, with the clarification that a project be defined as any action separate from other actions that cause a take of a nest. If this is not what was intended by the DEIR, then the cumulative effects of reasonably foreseeable future projects should be evaluated. The dismantling of a nest, in the absence of other measures, likely will result in a loss of an individual San Francisco dusky-footed woodrat that may inhabit that nest. We recommend that the proposed mitigation measures in the DEIR be replaced with a

commitment to follow the current CDFG protocol along with the commitment to development and implement an action area wide management plan for this species.

6. American badger: The American badger is a State Species of Special Concern. The species occurs throughout California, with the exception of the north coast area (CDFG 1990). The species is most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soil (CDFG 1990). The American badger typically occurs in association with ground squirrels (Eder 2005). The American badger digs burrows in friable soil for cover. It frequently reuses old burrows, although it sometimes digs a new den each night (CDFG 1990). The local decline of badgers in an area would result in the decline of many burrow-dependent animals (Eder 2005). If present, adverse project related effects to the American badger may have deleterious effects on other wildlife species, including, but not limited to, California red-legged frogs, California tiger salamanders, and burrowing owls. Although the American badger is acknowledged as a species that may occur onsite, the DEIR fails to address project related effects and appropriate minimization and mitigation measures for this species. Impacts to this species are particularly important for a project of this size, since the species has a large home range and impacts could be substantial. Surveys for the American badger following Service and CDFG recommendations should be completed in the action area. Survey results, avoidance measures, and mitigation measures should also be submitted to us for review.

7. Big-scale balsamroot: Big scale balsamroot occurs in chaparral, cismontane woodland, and valley and foothill grasslands. It is also known to occur in serpentine habitat (CNPS 2006). The species is threatened by development, vehicle traffic, and competition for non native plant species (CNDDB 2006). The DEIR states that the roadway project would significantly impact substantial populations of big-scale balsamroot (County of Santa Clara 2006). The Service and CDFG do not concur with the assumption that the proposed 1:1 mitigation ratio for rare plant populations would reduce vegetative impacts to a less than significant level. Big-scale balsamroot is an extremely rare species. A portion of mitigation plantings typically fails due to stochastic events, grazing, inappropriate landscape design, and vandalism. Moreover, the species is often found in serpentine soils, further challenging successful mitigation. The proposed 1:1 mitigation ratio inappropriately assumes that 100% of the rare plant mitigation plantings would survive. As such, we recommend that protocol surveys be completed for the big-scale balsamroot in the action area and the results, and avoidance and mitigation measures, if appropriate, be provided to us for review. The Service and CDFG will analyze the relative importance of populations found on-site in order to determine if the proposed mitigation is appropriate for the species. We also recommend that all mitigation occur on-site.

8. Chaparral harebell: Table 3 of the DEIR indicates that there is a low likelihood of the species to occur on Wildcat Canyon. At this time, the Service and CDFG do not have adequate information to concur with the County's assertion that the species' occurrence would be limited Wildcat Canyon in the project area. H.T. Harvey

conducted reconnaissance level surveys in August and September 2005. The species blooms between May and June (CNPS 2006), so negative findings in August and September do not indicate that the species is absent from the project area. The species occurs on rocky serpentine outcrops ranging from 750-3,750 feet in elevation (CNPS 2006). Suitable habitat is present at the project site (County of Santa Clara 2006). For the reasons previously described for big-scale balsamroot, the Service and CDFG do not concur with the assumption that the proposed 1:1 mitigation ratio for rare plant populations would reduce vegetative impacts to a less than significant level. We recommend that protocol surveys be completed for the chaparral harebell in the action area and the results, and avoidance and mitigation measures, if appropriate, be provided to us for review. The Service and CDFG will analyze the relative importance of populations found on-site in order to determine if the proposed mitigation is appropriate for the species. We also recommend that all mitigation occur on-site.

9. Mount Hamilton thistle: Mount Hamilton thistle is not included on Table 3 in the DEIR. The DEIR indicates that numerous seeps occur throughout the valley, creating permanently saturated conditions within much of the level pastureland (County of Santa Clara 2006). However, the DEIR does not indicate if seeps are located within the 85 acres of serpentine habitat in the project area. The species may occur onsite if there are clusters of perennial seeps on serpentine habitat (J. Hillman, pers. comm. with C. Mustin 2006). For the reasons previously described for big-scale balsamroot, the Service and CDFG do not concur with the assumption that the proposed 1:1 mitigation ratio for rare plant populations would reduce vegetative impacts to a less than significant level. We recommend that protocol surveys be completed for Mount Hamilton thistle in the action area and the results, and avoidance and mitigation measures, if appropriate, be provided to us for review. The Service and CDFG will analyze the relative importance of populations found on-site in order to determine if the proposed mitigation is appropriate for the species. We also recommend that all mitigation occur on-site.

10. Fragrant fritillary: The DEIR indicates that fragrant fritillary may occur in sparse annual grasses and serpentine grasslands in the western portion of the project area (County of Santa Clara 2006). The species is threatened by urbanization and non-native plants (CNPS, 2006). The DEIR fails to analyze indirect project effects on the 85 acres of serpentine habitat on Castro Valley Ranch. The fragrant fritillary distribution model contained in the draft HCP/NCCP indicates that Castro Valley Ranch contains both primary and secondary habitat for the species (Jones & Stokes, 2006). The draft HCP/NCCP defines primary habitat for the species as serpentine bunchgrass grassland between 0 and 1,500 feet elevation and secondary habitat as annual grassland, northern coastal scrub/Diablan sage scrub, and all oak woodland land cover types on slopes with all degrees of steepness (Jones & Stokes 2006). For the reasons previously described for big-scale balsamroot, the Service and CDFG do not concur with the assumption that the proposed 1:1 mitigation ratio for rare plant populations would reduce vegetative impacts to a less than significant level. We

recommend that protocol surveys be completed for the fragrant fritillary in the action area and the results, and avoidance and mitigation measures, if appropriate, be provided to us for review. The Service and CDFG will analyze the relative importance of populations found on-site in order to determine if the proposed mitigation is appropriate for the species. We also recommend that all mitigation occur on-site.

Loma Prieta hoita: Table 3 of the DEIR indicates that the species has a low likelihood of occurrence in shaded serpentine areas (County of Santa Clara 2006). At this time, the Service and CDFG do not have enough information to concur with the County's assumption that the species has a low probability of occurring onsite. The likelihood of the species occurring is unknown at this time because adequate surveys have not been conducted. Loma prieta hoita occurs in chaparral, cismontane woodland, and riparian woodland. It usually occurs in serpentine habitat (CNPS 2006). Suitable habitat is present onsite. There are 2 historic occurrences of the species in CNDDB, approximately 3-4 miles north of the project area (CNDDB 2006). The distribution model for the species in the draft HCP/NCCP indicates that the project area has both primary and secondary habitat for the species. Primary habitat includes mixed oak woodland and coast live oak woodland between 0 and 2,000 feet in elevation, and secondary habitat includes mixed northern chaparral and mixed serpentine chaparral between 0 and 3,000 feet in elevation (Jones & Stokes 2006). For the reasons previously described for big-scale balsamroot, the Service and CDFG do not concur with the assumption that the proposed 1:1 mitigation ratio for rare plant populations would reduce vegetative impacts to a less than significant level. We recommend that protocol surveys be completed for the Loma Prieta hoita in the action area and the results, and avoidance and mitigation measures, if appropriate, be provided to us for review. The Service and CDFG will analyze the relative importance of populations found on-site in order to determine if the proposed mitigation is appropriate for the species. We also recommend that all mitigation occur on-site.

11. Smooth lessingia: Smooth lessingia occurs on serpentine soils and outcrops, in dry, open areas of oak woodland, or chaparral at elevations below 1,000 feet (Service 1998). The DEIR states that the species may occur in serpentine grassland in the project area (County of Santa Clara 2006). The DEIR fails to analyze project effects on the 85 acres of serpentine habitat on Castro Valley Ranch. There are 2 occurrences documented in the CNDDB, approximately 3 miles north of the project area. Both occurred in serpentine habitat. The smooth lessingia distribution model contained in the draft HCP/NCCP indicates that Castro Valley Ranch contains suitable serpentine habitat for the species (Jones & Stokes, 2006). For the reasons previously described for big-scale balsamroot, the Service and CDFG do not concur with the assumption that the proposed 1:1 mitigation ratio for rare plant populations would reduce vegetative impacts to a less than significant level. We recommend that protocol surveys be completed for the smooth lessingia in the action area and the results, and avoidance and mitigation measures, if appropriate, be provided to us for review. The

Service and CDFG will analyze the relative importance of populations found on-site in order to determine if the proposed mitigation is appropriate for the species. We also recommend that all mitigation occur on-site.

12. Most beautiful jewelflower: Most beautiful jewelflower occur between 450 and 2,300 feet on serpentine outcrops, chaparral, and valley and foothill grassland (Service 1998). The DEIR fails to analyze project effects on the 85 acres of serpentine habitat on Castro Valley Ranch. There is a documented occurrence and on the Castro Valley Property (County of Santa Clara 2006; CNDDB, 2006). The most beautiful jewelflower distribution model contained in the draft HCP/NCCP indicates that Castro Valley Ranch contains suitable serpentine habitat for the species (Jones & Stokes 2006). For the reasons previously described for big-scale balsamroot, the Service and CDFG do not concur with the assumption that the proposed 1:1 mitigation ratio for rare plant populations would reduce vegetative impacts to a less than significant level. We recommend that protocol surveys be completed for the most beautiful jewelflower in the action area and the results, and avoidance and mitigation measures, if appropriate, be provided to us for review. The Service and CDFG will analyze the relative importance of populations found on-site in order to determine if the proposed mitigation is appropriate for the species. We also recommend that all mitigation occur on-site.

Cumulative Impacts

The Service and CDFG are concerned about the cumulative effects of the Castro Valley Ranch Subdivision project and other proposed or ongoing development projects in this portion of the Santa Clara Valley. Combined adverse impacts of this magnitude likely would have deleterious effects on federally listed species as well as several non-listed species that are being proposed for coverage under the HCP/NCCP. The proposed project in combination with the Coyote Valley Specific Plan, Gavilan College Residential Project, Hecker Pass District Backbone Infrastructure Master Plan, and a number of small or individual residential projects in the Coyote Valley and associated foothill areas could preclude the ability of listed species and wildlife to effectively move between the Diablo and Gabilan Ranges and the Santa Cruz Mountains. Our specific concerns are as follows:

1. Coyote Valley Specific Plan (CVSP): The City of San Jose recently decided to pursue authorization for incidental take for the CVSP via section 7 of the FESA. The City of San Jose previously included this project as a covered activity in the HCP/NCCP. If constructed, the CVSP would increase urbanization southward along the western side of Highway 101, eliminating or minimizing the potential for wildlife movement across the Coyote Valley, and increasing the importance of wildlife movement corridors in the Castro Valley area.

2. Hecker Pass District Backbone Infrastructure Master Plan: The Hecker Pass project area is located directly north of the Castro Valley Subdivision project area (City of Gilroy 2006a, 2006b). The Service and CDFG are concerned that the Hecker Pass project will further intensify development pressures in the Castro Valley Ranch area by creating an urban center just north of Castro Valley Ranch, such as the proposed DeNovo Homes project (City of Gilroy 2006c). The Hecker Pass widening project may further improve access to the northern portion of the newly subdivided Castro Valley property and would thus further facilitate future development. The DEIR should discuss how the Hecker Pass project may further contribute to the growth inducing effects of the roadway and lot realignment activities on Castro Valley Ranch.

3. Gavilan College Residential Project: The Service and CDFG have not been provided with any information regarding the Gavilan College Residential Project, other than the brief cumulative impact discussion contained in the DEIR. Based on the information contained in the DEIR, we are concerned that the proposed Gavilan project would result in the development of up to 534 dwelling units, directly adjacent to the Castro Valley Ranch Property. The Service and CDFG disagree with the assumption that red-legged frog are not present in the pond on the Gavilan site, due to the lack of emergent vegetation. The species is known to occur in ponds that lack vegetation. The DEIR does not indicate if protocol level survey for California tiger salamander and California red-legged frog were conducted to support the assumption that these species are absent. Castro Valley Ranch has an abundance of tiger salamander and red-legged frog, and at this time, the Service and CDFG have not been provided with any information indicating that the northern adjacent property, the Gavilan College Residential site, would not support these two species. We recommend that biological report, including the studies done on the California tiger salamander and the California red-legged frog, for the proposed Gavilan College Residential project be forwarded to us for review and comment.

4. Residential projects: The Service and CDFG are aware of several small residential projects in this area of Santa Clara County. On average, these projects are less than ten acres in size and consist of a few homes or other structures, although others are larger in size, including the Wildflower and Mesa Ridge residential projects in the City of Gilroy. The cumulative effects of these projects on habitat fragmentation and wildlife corridors may become significant.

Conclusions and Recommendations

The proposed Castro Valley Ranch Subdivision project will likely result in take of the federally threatened California red-legged frog and threatened California tiger salamander; it also may result in take of the federally threatened vernal pool fairy shrimp, threatened bay checkerspot butterfly, endangered least Bell's vireo, and endangered San Joaquin kit fox. The project may also result in adverse effects to the endangered Coyote ceanothus, endangered Santa Clara Valley

dudleya, endangered Metcalf Canyon jewelflower, endangered Tiburon paintbrush, endangered white-rayed pentachaeta, and endangered showy Indian clover. The DEIR and associated documents do not provide sufficient information to enable the Service and CDFG to adequately

analyze project effects on special status species; we recommend that protocol or Service/CDFG-approved surveys be completed for listed species in the action area. Furthermore, the DEIR does not adequately address growth inducing effects of the proposed subdivision on federally listed species and non-listed proposed covered species under the HCP/NCCP. We do not believe that future growth will be limited to current land use designations under the Santa Clara County General Plan and believe that a change in land use zoning from agriculture to urban or mixed use development is a reasonable and foreseeable outcome of the project. We recommend that the County of Santa Clara's effects analysis be revised to assume land use designation changes that would allow more intense development in the 8,400-acre project area.

We are also concerned that the proposed project will preclude the final conservation strategy for the HCP/NCCP. Both federally listed and non-listed proposed covered species under the HCP/NCCP likely will be adversely affected through direct, indirect, interrelated/ interdependent effects, including the fragmentation of habitat resulting from associated urbanization. We recommend that a discussion of how the proposed project will not preclude the developing HCP/NCCP be included in the next DEIR. On-going and future projects occurring on the west and east sides of Highway 101 in this portion of the Santa Clara Valley likely will contribute to significant cumulative impacts on these plants and animals.

The Service and CDFG recommend that the DEIR be revised and recirculated for comment due to an inadequate analysis of growth inducing effects, wildlife corridors, special status species, and cumulative impacts. In addition, we recommend the adoption of a project alternative that fully mitigates all impacts to wildlife movement corridors and reduces other impacts to wildlife to a level of insignificance. Alternatives A, E or F could meet these criteria after appropriate analysis and revision.

Regardless of the alternative in the DEIR selected, if the project may result in adverse effects or take of federally listed species, the County of Santa Clara, and/or the applicant(s) should obtain authorization for incidental take under sections 7 or 10(a) for the appropriate endangered or threatened species prior to finalization of the CEQA documents. We caution that mitigation or measures necessary to minimize adverse effects for these listed species may result in substantial changes in the currently proposed project design.

We appreciate the opportunity to provide comments on potential impacts of the Castro Valley Ranch Subdivision project on federally endangered and threatened species and other fish and wildlife resources. We are interested in continuing to work with the County of Santa Clara in the resolution of these issues.

Please contact Chris Nagano or Cori Mustin, of the Service's Endangered Species Program, at (916) 414-6600, Dave Johnston, Environmental Scientist of the CDFG, at (831) 466-0234 or Scott Wilson, Acting Environmental Program Manager of the CDFG at (707) 944-5584, if you have any questions regarding this response on the Castro Valley Ranch Subdivision.

Sincerely,

for Cay C. Goude
Assistant Field Supervisor
Endangered Species Program

Robert W. Floerke
Regional Manager
Central Coast Region

cc:
Jonathan Ambrose, NOAA-Fisheries, Santa Rosa, California
Holly Costa, U.S. Army Corps of Engineers, San Francisco, California
Scott Wilson, California Department of Fish and Game, Yountville, California
Dee Warenycia, California Department of Fish and Game, Sacramento, California
Brian Wines, Regional Water Quality Control Board, Oakland, California
Ken Schrieber, County of Santa Clara, San Jose, California
Jared Hart, City of San Jose, San Jose, California
Darryl Boyd, City of San Jose, San Jose, California
Gregg Polubinsky, City of Gilroy, California
Cydney Caspar, City of Gilroy, Gilroy, California
David Zippin, Jones & Stokes, San Jose, California

Literature Cited

Andreassen, H.P., S. Halle, and R.A. Ims. 1996. Optimal width of movement corridors for root voles: not too narrow and not wide. Journal of Applied Ecology 3:63-70.

Beier, P. 1993. Determining minimum habitat areas and habitat corridors for cougars. Conservation Biology 7:94-108

_____1995. Dispersal of juvenile cougars in fragmented habitat. Journal of Wildlife Management 59(2) 228-237.

_____2006. Effects of artificial night lighting on terrestrial mammals. Pages 19-42 *in* C.Rich and T. Longcore (editors). Ecological consequences of artificial night lighting. Island Press. Washington, D.C.

Beier, P. and S. Loe. 1991. Checklist for evaluating impacts to wildlife corridors. Wildlife Society Bulletin 20:434-440.

Beier, S. and R.F. Noss. 1998. Do habitat corridors really provide connectivity? Conservation Biology 12:1241-1252.

Buchanan, B. W. 1993. Effects of enhanced lighting on the behavior of nocturnal frogs. Animal Behaviour 45: 89-899.

_____2006. Observed and potential effects of artificial light on anuran amphibians. Pages 19-42 *in* C.Rich and T. Longcore (editors). Ecological consequences of artificial night lighting. Island Press. Washington, D.C.

Bulger, J. B., N. J. Scott, and R. B. Seymour. 2003. Terrestrial activity and conservation of adult California red-legged frogs *Rana aurora draytonii* in coastal forests and grasslands. Biological Conservation 110(1):85-95.

California Department of Fish and Game (CDFG). 1990. California's wildlife. Volume II. Mammals.

_____2006. BIOSIS. Sacramento, California. Internet address: http://www.dfg.ca.gov

California Native Plant Society (CNPS). 2006. Inventory of rare and endangered plants (online edition, v7-06d). internet address: http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi

California Natural Diversity Database (CNDDB). 2006. California Department of Fish and Game, Sacramento, California.

City of Gilroy. 2006a. Proposed mitigated negative declaration Hecker Pass Special Use District Backbone Infrastructure master plan A/S 05-54. Planning Department, Gilroy, California.

_____2006b. Proposed Mitigated Negative Declaration Heckler Pass Specific Plan Amendment (GPA06-02). Planning Department, Gilroy, California.

_____2006c. Proposed Mitigated Negative Declaration DeNova Homes Subdivision West-TM05-13. Planning Department, Gilroy, California.

County of Santa Clara. 2006. Draft environmental impact report, Castro Valley Ranch Subdivision. Department of Planning and Development, San Jose, California.

County of Santa Clara, Santa Clara Valley Water District, City of Gilroy, City of Morgan Hill, City of San Jose, Santa Clara Valley Transportation Authority, California Department of Fish and Game, and the United States Fish and Wildlife Service. 2005. Planning Agreement by and among the County of Santa Clara, the Santa Clara Valley Water District, the City of Gilroy, the City of Morgan Hill, the City of San Jose, the Santa Clara Valley Transportation Authority, the California Department of Fish and Game, and the United States Fish and Wildlife Service regarding the Santa Clara Valley Natural Community Conservation Plan. San Jose, California

Danielson, B.J. and M.W. Hubbard. 2000. The influence of corridors on the movement behavior of individual *Peromyscus polionotus* in environmental landscapes. Landscape ecology 15:323-331.

Eder, T. 2005. Mammals of California.

Foster, M.L., and S.R. Humphrey. 1995. Use of highway underpasses by Florida panthers and other wildlife. Wildlife Society Bulletin 23:95-100.

Haddad, N.M. 1999. Corridor and distance effects on interpatch movements: a landscape experiment with butterflies. Ecological Applications 9:612-622

Harrison, S. 1989. Long distance dispersal and colonization in the bay checkerspot butterfly, *Euphydryas editha bayensis*. Ecology 70:1236-1243

Hilty, J.A, W.Z. Lidicker Jr., A.M. Merenlender. 2006. Corridor Ecology: the Science and Practice of Linking Landscapes for Biodiversity Conservation.

H.T. Harvey & Associates 1999. Santa Clara Valley Water District foothill yellow-legged frog distribution and status – 1999.

_____2006. Castro Valley Ranch environmental impact report biotic resources section. San Jose, California

Humphrey, S.R. and T.H. Kunz. 1976. Ecology of a Pleistocene relict: The western big-eared bat (*Plecotus townsendii*) in the southern great plains. Journal of Mammology 57:470-494.

Jones & Stokes. August 2006. Santa Clara Valley habitat conservation plan and natural community conservation plan. Sacramento, California. Internet address: http://www.scv-habitatplan.org/www/default.aspx

Ng, S.J., J.W. Dole, R.M. Sauvajot, S.P.D. Riley, and T.J. Valone. 2004. Use of highway undercrossings by wildlife in southern California. Biological Conservation 115:499-507.

Pierson, E.D., W.E. Rainey, and D.M. Koontz. 1991. Bats and mines: experimental mitigation for Townsend's big-eared bat at the McLaughlin mine in California. Pages 313-342 *in.* Issue and technology in management of impacted wildlife, April 10, 1991. Proceedings of Throne Ecological Institute

Rosenburg, D.K., B.R. Noon, and E.C. Meslow. 1997. Biological corridors: form, function, and efficacy. BioScience 47:677-687.

Rydell, J. 2006. Bats and their insect prey at streetlights. Pages 43-60 *in* C.Rich and T. Longcore (editors). Ecological consequences of artificial night lighting. Island Press. Washington, D.C.

Thorne, James H., D. Cameron and V. Jigour. 2002. A guide to wildlands conservation in the central region of California. California Wilderness Coalition. Available online at http//www.calwild.org.

Thorne, James H., D. Cameron and J. Quinn. 2006. A conservation design for the central coast of California and the evaluation of the mountain lion as an umbrella species. Nature Areas Journal 26(2) 137-148

U. S. Fish and Wildlife Service. 1998. Recovery plan for serpentine soil species of the San Francisco Bay Area. Portland, Oregon.

_____1998. Recovery plan for upland species of the San Joaquin Valley, California. Portland, Oregon.

_____2002. Recovery plan for the California red-legged frog (*Rana aurora draytonii*). Portland, Oregon.

_____2004b. Endangered and threatened wildlife and plants; determination of threatened status for the California Tiger Salamander; and special rule exemption for existing routine ranching activities. **Federal Register** 69(149): 47211-47248.

____2005. Recovery plan for vernal pool ecosystems of California and southern Oregon. Portland, Oregon.

Weiss, S.B. 1999. Cars, cows, and checkerspot butterflies: nitrogen deposition and management of nutrient-poor grasslands for a threatened species. Conservation Biology 13:1476-1486.

Wise, S.R. and B.W. Buchanan. 2006. Influence of artificial illumination on the nocturnal behavior and physiology of salamanders. Pages 221-251 *in* C.Rich and T. Longcore (editors). Ecological consequences of artificial night lighting. Island Press. Washington, D.C.

Zeiner, D.C., Jr. W.F. Laundenslayer, K.E. Mayer, and M. White. 1990. California's Wildlife Volume III. Mammals. California Department of Fish and Game, Sacramento, California.