APPENDIX D2
Biological Resources Update
(June 2011)

Biological Resources Update
Mancara-Robinson Ranch (TTM 063022)
Santa Clarita, California

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INTRODUCTION AND METHODOLOGY

An Impact Sciences biologist conducted a field visit on June 7, 2011, on the 187-acre project site. Because previous studies and documentation had been completed for the subject site, the goal of the June 2011 site visit was to confirm whether conditions had remained the same on the site or had changed since the preparation of the Revised 2008 report, and to further update the conclusions regarding the potential of special-status species to utilize the site.

Prior to the June 2011 site visit, searches of the California Department of Fish and Game (CDFG) California Natural Diversity Database (CNDDB)[1] and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants[2] were conducted to identify special-status plant or animal species known to occur in the area. The CNDDB lists historical and recently recorded occurrences of special-status plant and animal species, and the CNPS database lists historical and recent occurrences of special-status plant species. The database searches included the Mint Canyon U.S. Geological Survey (USGS) 7.5-minute quadrangle, in which the project site is located, as well as the eight surrounding quadrangles: Green Valley, Sleepy Valley, Newhall, Oat Mountain, Warm Springs Mountain, Agua Dulce, San Fernando, and Sunland.

All accessible portions of the project site were traversed by foot. Focused or detailed surveys for particular plant and animal species were not conducted. However, this evaluation identifies any focused surveys that should be conducted or updated to determine presence of special-status species, based on the assessment of on-site habitats. The determination of potential for special-status species to be present on the project site is based on the proximity of the site to recorded occurrences from the CNDDB and CNPS databases, on-site vegetation and habitat characteristics, topography, elevation, soils, surrounding land uses, and known habitat requirements and geographic ranges of special-status plant and animal species known to occur in the region.

EXISTING CONDITIONS

Vegetation

Appendix A, Plant species observed on the Mancara-Robinson Ranch site; survey date June 7, 2011, lists all plant species observed during the 2011 survey. This list is in addition to the plant species reported in Appendix A of the Revised 2008 report, although there is considerable overlap between the two lists.

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1 California Department of Fish and Game. 2011. California Department of Fish and Game Natural Diversity Database, © 2003, Version 3.1.1, Update April 2, 2011.

2 California Native Plant Society (CNPS). 2011. California Native Plant Society Inventory of Rare and Endangered Plants, 8th Edition. Online: http://www.rareplants.cnps.org/. Update March 3, 2011.

Vegetation at the project site was assessed and described in Section 3.1, Plant Communities, in the Revised 2008 report for the project. The Environmental Setting section included a plant communities map (Figure 4), which is accurate as of June 2011, with the exceptions regarding nomenclature referenced in the endnotes to the following list, included in the Revised 2008 report.

- Big sagebrush scrub (34.85 acres)
- Four-wing saltbush-big sagebrush scrub (1.03 acres)
- Chamise chaparral scrub (25.53 acres)
- Coast live oak woodland (5.39acres)
- Holly-leaf cherry scrub (13.5 acres)
- Non-native grassland (67.4 acres)
- Southern riparian scrub (14.69 acres)
- Tucker's oak scrub (4.17 acres)
- River wash (5.0 acres)
- Buckwheat scrub (1.1 acre)
- Buckwheat-buckhorn cholla scrub[i] (0.1 acre)
- Buckhorn cholla scrub[ii] (0.2 acre)
- Buckwheat-chaparral yucca scrub (0.3 acre)
- Skunkbush scrub (0.1 acre)
- Blue elderberry scrub (0.7 acre)
- Yerba santa scrub (1.4 acres)
- Disturbed (11.55 acres)

[i] This habitat type is correctly identified as Buckwheat-cane cholla scrub. Cane cholla is *Cylindropuntia californica;* buckhorn cholla is *Cylindropuntia acanthocarpa,* a desert species that does not occur in the Santa Clarita Valley.

[ii] This habitat type is correctly identified as Cane cholla scrub.

Drainages/Jurisdictional Resources

According to the Jurisdictional Report prepared by Impact Sciences in 2006, a total of 0.63 of USACE jurisdictional waters are present within the project boundary associated with the Oak Springs Canyon Channel; an additional 5.29 acres of USACE jurisdiction are associated with the Santa Clara River. An additional, 0.01-acre wetland is located immediately adjacent to the Santa Clara River, and is also within USACE jurisdiction.

On-site CDFG jurisdiction includes 3.82 acres associated with the Oak Springs Canyon Channel and 14.97 acres associated with the Santa Clara River, totaling 18.79 acres. The delineated jurisdictional areas located on the project site were presented in Figure 6 of the Revised 2008 report, and that figure remains accurate as of June 2011.

Wildlife

Wildlife previously reported as occurring on site and which is expected to utilize on-site habitats as of June 2011, as well as additional species observed during the June 2011 site visit include:

Amphibians—California toad (*Anaxyrus boreas halophilus*), Baja California chorus frog (*Pseudacris hypochondriaca*), and western spadefoot (*Spea hammondii*);

Reptiles—San Diego alligator lizard (*Elgaria multicarinata webbii*), coast horned lizard (*Phrynosoma blainvillii*), Great Basin fence lizard (*Sceloporus occidentalis longipes*), California side-blotched lizard (*Uta stansburiana elegans*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), California kingsnake (*Lampropeltis getula californiae*), and red coachwhip (*Masticophis flagellum piceus*);

Birds—mallard (*Anas platyrhynchos*), California quail (*Callipepla californica*), great egret (*Ardea alba*), turkey vulture (*Cathartes aura*), white-tailed kite (*Elanus leucurus*), northern harrier (*Circus cyaneus*), red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), killdeer (*Charadrius vociferus*), rock pigeon (*Columba livia*), band-tailed pigeon (*Patagioenas fasciata*), mourning dove (*Zenaida macroura*), greater roadrunner (*Geococcyx californianus*), great horned owl (*Bubo virginianus*), white-throated swift (*Aeronautes saxatalis*), black-chinned hummingbird (*Archilochus alexandri*), Anna's hummingbird (*Calypte anna*), Costa's hummingbird (*Calypte costae*), acorn woodpecker (*Melanerpes formicivorus*), Nuttall's woodpecker (*Picoides nuttallii*), flycatcher, undetermined species (*Empidonax* sp.), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), ash-throated flycatcher (*Myiarchus cinerascens*), Cassin's kingbird (*Tyrannus vociferans*), western kingbird (*Tyrannus verticalis*), loggerhead shrike (*Lanius ludovicianus*), Cassin's vireo (*Vireo cassinii*), warbling vireo (*Vireo gilvus*), western scrub-jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), tree swallow (*Tachycineta bicolor*), northern rough-winged swallow (*Stelgidopteryx serripennis*), cliff swallow (*Petrochelidon pyrrhonota*), barn swallow (*Hirundo rustica*), oak titmouse (*Baeolophus inornatus*), bushtit (*Psaltriparus minimus*), white-breasted nuthatch (*Sitta carolinensis*), Bewick's wren (*Thryomanes bewickii*), house wren (*Troglodytes aedon*), wrentit (*Chamaea fasciata*), Swainson's thrush (*Catharus ustulatus*), northern mockingbird (*Mimus polyglottos*), California thrasher (*Toxostoma redivivum*), European starling (*Sturnus vulgaris*), phainopepla (*Phainopepla nitens*), orange-crowned warbler (*Oreothlypis celata*), Nashville warbler (*Oreothlypis ruficapilla*), yellow warbler (*Dendroica petechia brewsteri*), yellow-rumped warbler (*Dendroica coronata*), black-throated gray warbler (*Dendroica nigrescens*), MacGillivray's warbler (*Oporornis tolmiei*), common yellowthroat (*Geothlypis trichas*), Wilson's warbler (*Wilsonia pusilla*), yellow-breasted chat (*Icteria virens*), spotted towhee (*Pipilo maculatus*), California towhee (*Melozone crissalis*), chipping sparrow (*Spizella passerina*), black-headed grosbeak (*Pheucticus melanocephalus*), blue grosbeak (*Passerina caerulea*), lazuli bunting (*Passerina amoena*), red-winged blackbird

(*Agelaius phoeniceus*), western meadowlark (*Sturnella neglecta*), Brewer's blackbird (*Euphagus cyanocephalus*), hooded oriole (*Icterus cucullatus*), Bullock's oriole (*Icterus bullockii*), house finch (*Carpodacus mexicanus*), lesser goldfinch (*Spinus psaltria*), Lawrence's goldfinch (*Spinus lawrencei*), American goldfinch (*Spinus tristis*), and house sparrow (*Passer domesticus*);

Mammals—mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), striped skunk (*Mephitis mephitis*), long-tailed weasel (*Mustela frenata*), northern raccoon (*Procyon lotor*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), desert cottontail (*Sylvilagus audubonii*), Botta's pocket gopher (*Thomomys bottae*), agile kangaroo rat (*Dipodomys agilis*), California vole (*Microtus californicus*), dusky-footed woodrat (*Neotoma fuscipes*), and California ground squirrel (*Spermophilus beecheyi*).

As of June 2011, all of the above-listed species are expected to utilize the site during at least a portion of their life histories.

The Revised 2008 report included a report of observation of orange-throated whiptail (*Aspidoscelis hyperythra*), which is omitted from the above listing because the project site lies outside of the geographic range of the species. It is presumed that the sighting in question was a misidentification of a coastal whiptail.

An unidentified flycatcher was noted in the species lists for the 2006 Protocol Survey Results for Least Bell's Vireo and Southwestern Willow Flycatcher, prepared by Ecological Sciences, Inc.,[3] and included as an appendix to the Revised 2008 report. Because that report correctly identifies no suitable nesting habitat on-site for southwestern willow flycatcher, it is presumed that the bird in question was either a non-breeding (*i.e.*, transient or migratory) individual of willow flycatcher, or else a different species entirely.

Protected Oak Resources

Impact Sciences conducted an oak tree survey in 2005 of 349 jurisdictional oak trees within the boundaries of the project, and prepared a subsequent report in 2006 per the City's requirements and guidelines. This report was updated in April 2011 and has been approved by the City of Santa Clarita. The proposed project would remove 12 oak trees, have major encroachment upon 25 oak trees and minor encroachment upon 59 oak trees.

3 Ecological Sciences, Inc. 2006. Results of Protocol Surveys for the Least Bell's Vireo and Southwestern Willow Flycatcher, Oak Springs Project Site, City of Santa Clarita, Los Angeles County, California. Prepared for Impact Sciences, Inc.

POTENTIAL CONSTRAINTS AND RECOMMENDATIONS

Special-Status Plant Species

Southern California black walnut (*Juglans californica*, CNPS List 4.2) was observed on site in 2006 and 2011, within the southwestern portion of the site, on the west bank of the Oak Springs Canyon Channel. A Southern California black walnut was also observed to the north of the Metrolink tracks, just outside of project boundary. Their locations are depicted in Figure 4 of the Revised 2008 report**.**

No other special-status plant species were observed during the 2005 and 2006 focused surveys; however, three previously undetected special status species were observed in 2011. These are Mason's neststraw (*Stylocline masonii*, CNPS List 1B.1), Palmer's grapplinghook (*Harpagonella palmeri*, CNPS List 4.2), and Peirson's morning-glory (*Calystegia peirsonii*, CNPS List 4.2).

- Mason's neststraw is present within areas proposed for oak tree mitigation planting. The planting of oak trees would alter habitat conditions, making them unsuitable for this species.
- Grading for Lots 14 – 17 and 66 would impact portions of the Palmer's grapplinghook population.
- Grading for Lots 1 and 2, as well as off-site grading adjacent to those lots, would impact the Pierson's morning-glory population.

Please refer to **Table 1** of **Appendix B, Special-status species observed on site or reported from the project region**, for a listing of all special-status plant species reported from the region, their sensitivity statuses, summaries of their habitat requirements, and determinations of their potential to be present on the project site.

Special-Status Wildlife

Eight special-status animal species have been observed on site during surveys conducted in 2005, 2006, and 2011. These are western spadefoot (*Spea hammondii*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), coast horned lizard (*Phrynosoma blainvillii*), oak titmouse (*Baeolophus inornatus*), Costa's hummingbird (*Calypte costae*), white-tailed kite (*Elanus leucurus*), Nuttall's woodpecker (*Picoides nuttallii*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*).

The present analysis recognizes the potential for an additional 18 species to be present on site at various periods of their life histories considered sensitive by CDFG. These are Santa Ana sucker (*Catostomus santaanae*), unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), arroyo chub (*Gila orcuttii*), silvery legless lizard (*Anniella pulchra pulchra*), rosy boa (*Charina trivirgata*), two-striped garter snake (*Thamnophis hammondii*), Cooper's hawk (*Accipiter cooperii*), Southern California rufous-crowned

sparrow (*Aimophila ruficeps canescens*), grasshopper sparrow (*Ammodramus savannarum*), Bell's sage sparrow (*Amphispiza belli belli*), burrowing owl (*Athene cunicularia*), California horned lark (*Eremophila alpestris actia*), Lawrence's goldfinch (*Spinus lawrencei*), pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis californicus*), hoary bat (*Lasiurus cinereus*), San Diego desert woodrat (*Neotoma lepida intermedia*), and southern grasshopper mouse (*Onychomys torridus ramona*).

The Revised 2008 report noted the potential occurrence of several of the above-listed species but did not indicate the potential occurrence of rosy boa, Cooper's hawk, Southern California rufous-crowned sparrow, grasshopper sparrow, Bell's sage sparrow, burrowing owl, California horned lark, Lawrence's goldfinch, pallid bat, western mastiff bat, hoary bat, or southern grasshopper mouse.

Project impacts are not proposed within the Santa Clara River, so impacts to aquatic and riparian-dependent species are not anticipated. Such species include Santa Ana sucker (*Catostomus santaanae*), unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), arroyo chub (*Gila orcuttii*), and two-striped garter snake (*Thamnophis hammondii*).

Please refer to **Table 2** of **Appendix B, Special-status species observed on site or reported from the project region**, for a listing of all special-status animal species reported from the region, their sensitivity statuses, summaries of their habitat requirements, and determinations of their potential to be present on the project site.

RECOMMENDATIONS

1. The Mason's neststraw population within the oak tree mitigation area in the southwestern portion of the project site should be mapped and overlayed on the tract map. No planting of oak trees should be allowed within 100 feet of areas occupied by Mason's nest straw. Prior to oak tree mitigation planting, all areas mapped as occupied by Mason's neststraw should be fenced so as to guide oak tree planting personnel. The installation of fencing should be overseen by the project biologist, and the avoidance of impacts to Mason's neststraw should be confirmed subsequent to oak tree planting by documentation to the City of Santa Clarita.

2. Palmer's grapplinghook is present on lots 14 and 15 outside of areas to be graded for building lots and along areas currently used as an existing informal trail. In order to preserve the remaining Palmer's grapplinghook population subsequent to project development, a deed restriction should be placed on ungraded portions of Lots 14 and 15. No ground alteration or soil disturbance should be allowed within the deed-restricted portion of these lots. If fuel-reduction for fire protection is required in these lots, it should be implemented by hand-held tools such as weed-whips and chainsaws, so as to minimize impacts to soils and herbaceous vegetation. The deed restriction should occur prior to issuance of building permit for these lots.

3. Prior to the issuance of a grading permit for the project, Pierson's morning-glory plants should be salvaged from Lots 1 and 2 during the dormant season (from late summer to early winter) and

transplanted to appropriate habitat areas not proposed for development. The salvage and transplantation effort should be documented and submitted to the City of Santa Clarita.

4. Prior to issuance of a grading permit, the applicant should develop, in consultation with the CDFG, a relocation plan for silvery legless lizard, coastal whiptail, coast horned lizard, and rosy boa. The Plan should include but not be limited to the timing and location of the surveys that would be conducted for each species; identify the locations where more intensive efforts should be conducted; identify the habitat and conditions in the proposed relocation site(s); the methods that would be utilized for trapping and relocating the individual species; and provide for the documentation/recordation of the species and number of the animals relocated. The Plan should be submitted to the City of Santa Clarita and CDFG for approval 60 days prior to any ground disturbing activities within potentially occupied habitat.

   The Plan should include the specific survey and relocation efforts that would occur for construction activities that occur both during the activity period of the special-status species (generally March to November) and for periods when the species may be present in the work area but difficult to detect due to weather conditions (generally December through February). Thirty days prior to construction activities in coastal scrub, chaparral, oak woodland, riparian habitats, or other areas supporting these species qualified biologists should conduct surveys to capture and relocate individual silvery legless lizard, coastal whiptail, coast horned lizard, and rosy boa in order to avoid or minimize take of these special-status species. The plan should require a minimum of three surveys conducted during the time of year/day when each species is most likely to be observed. Individuals should be relocated to nearby undisturbed areas with suitable habitat. If construction is scheduled to occur during the low activity period (generally December through February) the surveys should be conducted prior to this period if possible and exclusion fencing should be placed to limit the potential for re-colonization of the site prior to construction. The qualified biologist will be present during ground-disturbing activities immediately adjacent to or within habitat that supports populations of these species. Clearance surveys for special-status reptiles should be conducted by a qualified biologist prior to the initiation of construction each day, especially along the interface between open space and construction areas.

   Results of the surveys and relocation efforts should be provided to the City of Santa Clarita and CDFG in the annual mitigation status report. Collection and relocation of animals should only occur with the necessary scientific collection and handling permits.

5. Within 30 days of ground-disturbing activities associated with construction or grading that would occur during the nesting/breeding season of native bird species potentially nesting on the site (typically March through August in the project region, or as determined by a qualified biologist), the applicant should have weekly surveys conducted by a qualified biologist to determine if active nests of bird species protected by the Migratory Bird Treaty Act or the California Fish and Game Code are present in the disturbance zone or within 300 feet (500 feet for raptors) of the disturbance zone. The surveys should continue on a weekly basis, with the last survey being conducted no more than three days prior to initiation of disturbance work. If ground-disturbing activities are delayed, then additional pre-disturbance surveys should be conducted such that no more than three days will have elapsed between the survey and ground-disturbing activities.

   If active nests are found, clearing and construction within 300 feet of the nest (500 feet for raptors) should be postponed or halted, at the discretion of the biologist in consultation with CDFG, until the

nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting. Limits of construction to avoid an active nest should be established in the field with flagging, fencing, or other appropriate barriers, and construction personnel should be instructed on the sensitivity of nest areas. The biologist should serve as a construction monitor during those periods when construction activities will occur near active nest areas to ensure that no inadvertent impacts to these nests occur. Results of the surveys should be provided to the City of Santa Clarita and CDFG.

6. Thirty days prior to construction activities in grassland, scrub, chaparral, oak woodland, riverbank, and agriculture habitats, or other suitable habitat a qualified biologist should conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for San Diego black-tailed jackrabbit, San Diego desert woodrat, and southern grasshopper mouse.

   If San Diego black-tailed jackrabbits are present, non-breeding rabbits should be flushed from areas to be disturbed. Dens, depressions, nests, or burrows occupied by pups should be flagged and ground-disturbing activities avoided within a minimum of 200 feet during the pup-rearing season (February 15 through July 1). This buffer may be reduced based on the location of the den upon consultation with CDFG. Occupied maternity dens, depressions, nests, or burrows should be flagged for avoidance, and a biological monitor should be present during construction. If unattended young are discovered, they should be relocated to suitable habitat by a qualified biologist. The applicant should document all San Diego black-tailed jackrabbit identified, avoided, or moved and provide a written report to the City of Santa Clarita and CDFG within 72 hours. Collection and relocation of animals should only occur with the proper scientific collection and handling permits.

   San Diego desert woodrat and southern grasshopper mouse should be surveyed for using live traps, and if pregnant or lactating females are discovered, a fence should be erected around the trap site adequate to provide the woodrat or grasshopper mouse sufficient foraging habitat at the discretion of the qualified biologist in consultation with CDFG. Clearing and construction within the fenced area will be postponed or halted until young have left the natal site. The biologist should serve as a construction monitor during those periods when disturbance activities will occur near natal areas to ensure that no inadvertent impacts to these species will occur.

   All woodrat/grasshopper mouse relocation should be conducted by a qualified biologist in possession of a valid scientific collecting permit.

7. No earlier than 30 days prior to the commencement of construction activities, a pre-construction survey should be conducted by a qualified biologist to determine if active roosts of special-status bats are present on or within 300 feet of the Project disturbance boundaries. Should an active maternity roost be identified (in California, the breeding season of native bat species is generally from April 1 through August 31), the roost should not be disturbed and construction within 300 feet should be postponed or halted, until the roost is vacated and juveniles have fledged. Surveys should include rocky outcrops, caves, structures, and large trees (particularly trees 12 inches in diameter or greater at 4.5 feet above grade with loose bark or other cavities). Trees and rocky outcrops should be surveyed by a qualified bat biologist (*i.e.*, a biologist holding a CDFG collection permit and a Memorandum of Understanding with CDFG allowing the biologist to handle bats). If active maternity roosts or hibernacula are found, the rock outcrop or tree occupied by the roost should be avoided (*i.e.*, not removed) by the Project. If avoidance of the maternity roost must occur, the bat biologist should survey (through the use of radio telemetry or other CDFG approved methods) for nearby alternative

maternity colony sites. If the bat biologist determines in consultation with and with the approval of CDFG that there are alternative roost sites used by the maternity colony and young are not present then no further action is required.

If a maternity roost will be impacted by the Project, and no alternative maternity roosts are in use near the site, substitute roosting habitat for the maternity colony should be provided on, or in close proximity to, the Project site no less than three months prior to the eviction of the colony. Large concrete walls (*e.g.*, on bridges) on south or southwestern slopes that are retrofitted with slots and cavities are an example of structures that may provide alternative potential roosting habitat appropriate for maternity colonies. Alternative roost sites must be of comparable size and proximal in location to the impacted colony. CDFG should also be notified of any hibernacula or active nurseries within the construction zone.

If non-breeding bat hibernacula are found in trees scheduled to be removed or in crevices in rock outcrops within the grading footprint, the individuals should be safely evicted, under the direction of a qualified bat biologist, by opening the roosting area to allow airflow through the cavity or other means determined appropriate by the bat biologist (*e.g.*, installation of one-way doors). In situations requiring one-way doors, a minimum of one week should pass after doors are installed and temperatures should be sufficiently warm for bats to exit the roost because bats do not typically leave their roost daily during winter months in southern coastal California. This action should allow all bats to leave during the course of one week. Roosts that need to be removed in situations where the use of one-way doors is not necessary in the judgment of the qualified bat biologist in consultation with CDFG should first be disturbed by various means at the direction of the bat biologist at dusk to allow bats to escape during the darker hours, and the roost tree should be removed or the grading should occur the next day (*i.e.*, there should be no less or more than one night between initial disturbance and the grading or tree removal). These actions should allow bats to leave during nighttime hours, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight.

If an active maternity roost is located on the Project site, and alternative roosting habitat is available, the demolition of the roost site must commence before maternity colonies form (*i.e.*, prior to March 1) or after young are flying (*i.e.*, after July 31) using the exclusion techniques described above.

8. Any special-status species bat day roost sites found by a qualified biologist during pre-construction surveys conducted per Recommendation 7, to be directly (within project disturbance footprint) or indirectly (within 300 feet of project disturbance footprint) impacted are to be mitigated with creation of artificial roost sites. The Project applicant should establish (an) alternative roost site(s) within suitable preserved open space located at an adequate distance from sources of human disturbance.

9. Thirty days prior to construction activities, a qualified biologist should conduct CDFG protocol surveys to determine whether burrowing owl is present at the site at the time of construction. The surveys should consist of three site visits and should be conducted in areas dominated by field crops, disturbed habitat, grasslands, and along levee locations, or if such habitats occur within 500 feet of a construction zone. If located, occupied burrows should not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFG verifies through non-invasive methods either that the birds have not begun egg-laying and incubation or that juveniles from the occupied burrows are foraging independently and are capable of independent survival. If the burrowing owl is detected but nesting is not occurring, construction work can proceed

after any owls have been evacuated from the site using CDFG-approved burrow closure procedures and after alternative nest sites have been provided in accordance with the CDFG Staff Report on Burrowing Owl Mitigation (10-17-95).

Unless otherwise authorized by CDFG, a 500-foot buffer, within which no activity will be permissible, will be maintained between Project activities and nesting burrowing owls during the nesting season. This protected area will remain in effect until August 31 or at CDFG's discretion and based upon monitoring evidence, until the young owls are foraging independently.

Results of the surveys and relocation efforts should be provided to the City of Santa Clarita and CDFG in the annual mitigation status report.

10. Prior to the issuance of a grading permit for ground disturbance, construction, or site preparation activities, the applicant should retain the services of a qualified biologist to conduct pre-construction surveys for western spadefoot within all portions of the Project site containing suitable breeding habitat. Surveys should be conducted during a time of year when the species could be detected (*e.g.*, the presence of rain pools). If western spadefoot is identified on the Project site, the following measures will be implemented:

    Under the direct supervision of the qualified biologist, western spadefoot habitat should be created within suitable natural sites on the Specific Plan site outside of the proposed development envelope. The amount of occupied breeding habitat to be impacted by the Project should be replaced at a 2:1 ratio. The actual relocation site design and location should be approved by CDFG. The location should be in a suitable habitat as far away as feasible from any of the homes and roads to be built. The relocation ponds should be designed such that they only support standing water for several weeks following seasonal rains in order that aquatic predators (*e.g.*, fish, bullfrogs, and crayfish) cannot become established. Terrestrial habitat surrounding the proposed relocation site should be as similar in type, aspect, and density to the location of the existing ponds as feasible. No site preparation or construction activities should be permitted in the vicinity of the currently occupied ponds until the design and construction of the pool habitat in preserved areas of the site has been completed and all western spadefoot adult, tadpoles, and egg masses detected are moved to the created pool habitat.

    Based on appropriate rainfall and temperatures, generally between the months of February and April, the biologist should conduct pre-construction surveys in all appropriate vegetation communities within the development envelope. Surveys will include evaluation of all previously documented occupied areas and a reconnaissance-level survey of the remaining natural areas of the site. All western spadefoot adults, tadpoles, and egg masses encountered should be collected and released in identified/created relocation ponds described above.

    The qualified biologist should monitor the relocation site for five years, involving annual monitoring during and immediately following peak breeding season such that surveys can be conducted for adults as well as for egg masses and larval and post-larval toads. Further, survey data will be provided to CDFG by the monitoring biologist following each monitoring period and a written report summarizing the monitoring results will be provided to CDFG at the end of the monitoring effort. Success criteria for the monitoring program should include verifiable evidence of toad reproduction at the relocation site.

11. In order to reduce impacts to biological resources from grading and construction activities, all related activities will be conducted to facilitate the escape of animals to natural areas. Construction and grading activities will begin in disturbed areas in order to avoid stranding animals in isolated patches of vegetation. Trenches will be covered at night to prevent animals from falling into and being trapped in trenches.

APPENDIX A

Plant species observed on the Mancara-Robinson Ranch site; survey date June 7, 2011

Arial font indicates non-native taxa
Underlined font indicates special-status taxa

FERNS AND FERN ALLIES

Pteridaceae (brake family)

Pellaea andromedifolia (coffee fern)

Selaginellaceae (spike-moss family)

Selaginella bigelovii (Bigelow's spike-moss)

CONIFERS

Cupressaceae (cypress family)

Juniperus californica (California juniper)

Ephedraceae (ephedra family)

Ephedra nevadensis (Nevada ephedra)

DICOTS

Adoxaceae (moschatel family)

Sambucus nigra ssp. *caerulea* (blue elderberry)

Amaranthaceae (amaranth family)

Amaranthus albus (tumbleweed)
Atriplex canescens (four-wing saltbush)
Atriplex rosea (tumbling oracle)
Chenopodium album (lamb's quarters)
Chenopodium berlandieri var. *zschackei* (pit-seed goosefoot)
Chenopodium californicum (California goosefoot)
Dysphania botrys (Jerusalem-oak)

Anacardiaceae (sumac family)

Rhus aromatica (skunk bush)

Apiaceae (carrot family)

Apiastrum angustifolium (California wild celery)

Asteraceae (sunflower family)

Acourtia microcephala (scapellote)
Ambrosia acanthicarpa (annual bur-sage)
Artemisia californica (California sagebrush)
Artemisia douglasiana (mugwort)
Artemisia dracunculus (tarragon)
Artemisia tridentata ssp. *parishii* (Parish's sagebrush)—*considered sensitive by Los Angeles County*
Artemisia tridentata ssp. *tridentata* (big sagebrush)
Baccharis salicifolia (mulefat)
Centaurea benedicta (blessed thistle)
Centaurea melitensis (tocolote)
Chaenactis glabriuscula var. *glabriuscula* (common yellow pincushion)
Chrysothamnus nauseosus ssp. *mohavensis* (rubber rabbitbrush)
Cirsium occidentale var. *occidentale* (western thistle)
Conyza bonariensis (asthmaweed)
Conyza canadensis (horseweed)
Corethrogyne filaginifolia (California aster)
Deinandra fasciculata (clustered tarplant)
Encelia californica (California bush sunflower)
Ericameria linearifolia (linear-leaved goldenbush)
Eriophyllum confertiflorum var. *confertiflorum* (golden yarrow)
Gnaphalium californicum (California everlasting)
Heterotheca grandiflora (telegraph weed)
Heterotheca sessiliflora (false goldenaster)
Lactuca serriola (prickly lettuce)
Lepidospartum squamatum (California broomsage)
Lessingia lemmonii (Lemmon's lessingia)
Logfia filaginoides (California cottonrose)
Malacothrix saxatilis (cliff malacothrix)
Matricaria matricarioides (pineapple weed)
Psilocarphus tenellus (wooly marbles)
Senecio flaccidus var. *douglasii* (shrubby butterweed)
Sonchus asper ssp. *asper* (prickly sow thistle)
Stephanomeria exigua (small wirelettuce)
Stephanomeria virgata (twiggy wreathplant)
Stylocline gnaphaloides (everlasting nest-straw)
Stylocline masonii (Mason's neststraw)—CNPS List 1B.1

Tetradymia comosa (hairy horsebrush)
Uropappus lindleyi (silverpuffs)
Xanthium strumarium (cocklebur)

Boraginaceae (borage family)

Amsinckia menziesii var. *intermedia* (common Menzies' fiddleneck)
Amsinckia menziesii var. *menziesii* (small-flowered Menzies' fiddleneck)
Cryptantha echinella (hedgehog cryptantha)
Cryptantha intermedia (common cryptantha)
Cryptantha microstachys (Fort Tejon cryptantha)
Eriodictyon crassifolium (thick-leaved yerba santa)
Eucrypta chrysanthemifolia var. *chrysanthemifolia* (spotted hideseed)
Harpagonella palmeri (Palmer's grapplinghook)—CNPS List 4.2
Heliotropium curassavicum (salt heliotrope)
Pectocarya linearis ssp. *ferocula* (slender combseed)
Pectocarya setosa (moth combseed)
Phacelia cicutaria (caterpillar phacelia)
Phacelia ramosissima var. *latifolia* (branching phacelia)
Phacelia tanacetifolia (lacy phacelia)
Plagiobothrys arizonicus (Arizona popcorn flower)

Brassicaceae (mustard family)

Hirschfeldia incana (summer mustard)
Sisymbrium altissimum (tumble mustard)

Cactaceae (cactus family)

Cylindropuntia californica var. *californica* (cane cholla)
Opuntia basilaris var. *basilaris* (beavertail cactus)

Caprifoliaceae (honeysuckle family)

Lonicera interrupta (connate-leaf chaparral honeysuckle)

Convolvulaceae (morning-glory family)

Calystegia peirsonii (Peirson's morning-glory)—CNPS List 4.2
Cuscuta californica var. *californica* (chaparral dodder)

Cucurbitaceae (gourd family)

Cucurbita foetidissima (calabazilla)
Marah macrocarpus var. *macrocarpus* (big-fruited man-root)

Ericaceae (heath family)

Arctostaphylos glauca (big-berry manzanita)

Euphorbiaceae (spurge family)

Chamaesyce albomarginata (rattlesnake weed)
Croton setigerus (turkey mullein)
Stillingia linearifolia (linearleaf sand spurge)

Fabaceae (legume family)

Acmispon glaber var. *glaber* (California broom)
Acmispon strigosus (bishop's lotus)
Lupinus bicolor (miniature lupine)
Melilotus indicus (yellow sweet-clover)
Robinia pseudoacacia (black locust)

Fagaceae (oak family)

Quercus agrifolia var. *agrifolia* (coast live oak)
Quercus john-tuckeri (Tucker oak)

Geraniaceae (geranium family)

Erodium cicutarium (red-stem filaree)

Grossulariaceae (gooseberry family)

Ribes aureum var. *aureum* (golden currant)

Juglandaceae (walnut family)

Juglans californica (southern California black walnut)—CNPS List 4.2

Lamiaceae (mint family)

Marrubium vulgare (horehound)
Salvia apiana (white sage)
Salvia columbariae var. *columbariae* (chia sage)
Salvia mellifera (black sage)
Trichostema lanatum (wooly blue-curls)

Malvaceae (mallow family)

Malacothamnus fasciculatus var. *fasciculatus* (chaparral bush mallow)
Malva parviflora (cheese weed)

Myrtaceae (myrtle family)

Eucalyptus globulus (blue gum)

Nyctaginaceae (four o'clock family)

Mirabilis laevis var. *crassifolia* (California wishbone bush)

Onagraceae (evening-primrose family)

Camissonia bistorta (suncups)
Camissonia californica (California suncups)
Camissonia micrantha (miniature suncup)

Paeoniaceae (peony family)

Paeonia californica (California peony)

Papaveraceae (poppy family)

Eschscholzia californica (California poppy)

Phrymaceae (lopseed family)

Mimulus guttatus (seep-spring mimulus)
Mimulus pilosus (downy monkeyflower)

Plantaginaceae (plantain family)

Veronica anagallis-aquatica (water speedwell)

Polemoniaceae (phlox family)

Eriastrum densifolium ssp. *elongatum* (perennial wool star)
Eriastrum sapphirinum (sapphire woolystar)
Navarretia atractyloides (holly-leaved navarretia)

Polygonaceae (buckwheat family)

Chorizanthe staticoides (Turkish rugging)
Eriogonum angulosum (angle-stem buckwheat)
Eriogonum baileyi var. *baileyi* (Bailey's buckwheat)
Eriogonum fasciculatum var. *foliolosum* (leafy California buckwheat)
Eriogonum fasciculatum var. *polifolium* (gray California buckwheat)
Lastarriaea coriacea (leather spineflower)
Pterostegia drymarioides (fairy mist)
Rumex crispus (curly dock)
Rumex hymenosepalus (Canaigre dock)

Rhamnaceae (buckthorn family)

Ceanothus crassifolius (hoaryleaf ceanothus)
Ceanothus cuneatus (buckbrush)

Rosaceae (rose family)

Adenostoma fasciculatum var. *fasciculatum* (chamise)
Prunus ilicifolia ssp. *ilicifolia* (hollyleaf cherry)

Rubiaceae (madder family)

Galium angustifolium ssp. *angustifolium* (narrow-leaf bedstraw)

Salicaceae (willow family)

Populus fremontii ssp. *fremontii* (Fremont cottonwood)
Salix exigua var. *exigua* (sandbar willow)
Salix lasiolepis (arroyo willow)

Scrophulariaceae (figwort family)

Castilleja exserta ssp. *exserta* (purple owls-clover)

Solanaceae (nightshade family)

Datura wrightii (jimsonweed)
Nicotiana glauca (tree tobacco)
Nicotiana quadrivalvis (large-flowered tobacco)
Solanum xanti (chaparral nightshade)

Tamaricaceae (tamarisk family)

Tamarix ramosissima (salt-cedar)

MONOCOTS

Agavaceae (agave family)

Yucca whipplei (chaparral yucca)

Liliaceae (lily family)

Calochortus splendens (splendid mariposa lily)

Poaceae (grass family)

Achnatherum coronatum (desert needlegrass)
Arundo donax (giant reed)
Avena barbata (slender oat)
Avena fatua (wild oat)
Bromus diandrus (ripgut brome)
Bromus hordeaceus (soft chess)
Bromus madritensis ssp. *rubens* (red brome)
Bromus tectorum (cheat grass)
Cynodon dactylon (Bermuda grass)
Hordeum murinum ssp. *leporinum* (hare barley)
Leymus condensatus (giant wildrye)
Melica imperfecta (coast range melic)
Nassella cernua (nodding needlegrass)
Nassella lepida (foothill needlegrass)
Poa secunda ssp. *secunda* (one-sided bluegrass)
Polypogon monspeliensis (rabbit's foot grass)
Schismus arabicus (Arabian splitgrass)
Schismus barbatus (Mediterranean splitgrass)
Vulpia myuros var. *myuros* (mouse-tail fescue)

Themidaceae (triteleia family)

Bloomeria crocea (common goldenstar)

APPENDIX B

Special-status species observed on site or reported from the project region

Table 1
Special-status plant species observed on site or reported from the project region[4]

Common name *Scientific name*	Federal status	State status	CNPS List	Habitat	Growth form Blooming period*	Potential to occur on site
Dicots						
California androsace *Androsace elongata* ssp. *acuta*	—	—	4.2	Chaparral, cismontane woodland, coastal scrub, meadow, seep, pinyon and juniper woodland, and valley and foothill grassland communities between 150 and 1,200 m asl.	Annual herb March–June	**Low**—suitable habitat is present on site, but the species was not observed in 2005, 2006 or 2011 and is therefore presumed to be absent or if present, occurring in very low numbers.
Darwin rock cress *Arabis pulchra* var. *munciensis*	—	—	2.3	Carbonate soils in chenopod scrub and Mojavean desert scrub communities between 1,100 and 2,075 m asl.	Perennial herb April	**None**—carbonate substrate is not present on and the site does not support any typically Mojavean vegetation types.
Nevin's barberry *Berberis nevinii*	FE	SE	1B.1	Sandy or gravelly habitats on steep north-facing slopes and in low-grade washes in chaparral, cismontane woodland, and coastal and riparian scrub communities between 274 and 825 m asl.	Perennial evergreen shrub March–June	**None**—the site is not within the natural range of the species; a nearby population in San Francisquito Canyon is introduced.[5]
Round-leaved filaree *California macrophylla*[6]	—	—	1B.1	Clay soils in cismontane woodland, valley and foothill grassland communities between 15 and 1,200 m asl.	Annual herb March–May	**Low**—suitable habitat is present along the ridgeline on the southern edge of the property; the species was not observed in 2005, 2006 or 2011 and is therefore presumed to be absent or if present, occurring in very low numbers.
Peirson's morning-glory ***Calystegia peirsonii***	**—**	**—**	**4.2**	**Chaparral, chenopod scrub, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland communities between 30 and 1,500 m asl.**	**Rhizomatous herb** **April–June**	**Present—a population of this species was observed in 2011 on north-facing slopes in the easternmost portion of the site.**

4 For the purposes of database querying, the project region is considered to be the USGS 15-munute quadrangle in which the project site is located (Mint Canyon) and the surrounding eight quadrangles (Green Valley, Sleepy Valley, Newhall, Oat Mountain, Warm Springs Mountain, Agua Dulce, San Fernando, and Sunland.).

5 California Native Plant Society. 2011. Species account for *Berberis nevinii*. Inventory of Rare and Endangered Plants (online edition, v7-11jan). California Native Plant Society. Sacramento, California. Accessed on Fri, Jan. 21, 2011 from http://www.cnps.org/inventory

6 Treated as *Erodium macrophyllum* in the 1993 edition of *The Jepson Manual*.

Common name *Scientific name*	Federal status	State status	CNPS List	Habitat	Growth form Blooming period*	Potential to occur on site
Southern tarplant *Centromadia parryi* ssp. *australis*	—	—	1B.1	Vernally mesic, often alkaline, habitats in marshes and swamp margins, valley and foothill grassland, and vernal pool communities between 0 and 427 m asl.	Annual herb May–November	**Presumed absent**—suitable habitat is present within the jurisdictional wetland in the northern portion of the property. This species is quite conspicuous during the blooming period and due to a lack of observations in 2005, 2006 and 2011 is presumed not to be present on site.
San Fernando Valley spineflower *Chorizanthe parryi* var. *fernandina*	FC	SE	1B.1	Sandy soils in coastal scrub and valley and foothill grassland communities between 150 and 1,220 m asl.	Annual herb April–July	**Presumed absent**—suitable habitat is present along ridges and within openings in scrub vegetation in the northern and western portions of the project site. This species was not observed during the blooming season in 2011 and is presumed not to be present on site.
Parry's spineflower *Chorizanthe parryi* var. *parryi*	—	—	1B.1	Sandy or rocky habitats and openings in chaparral, cismontane woodland, coastal scrub, valley and foothill grassland communities between 275 and 1,220 m asl.	Annual herb April–June	**Presumed absent**—suitable habitat is present along ridges and within openings in scrub vegetation in the northern and western portions of the project site. This species was not observed during the blooming season in 2011 and is presumed not to be present on site.
Monkey-flower savory *Clinopodium mimuloides*[7]	—	—	4.2	Stream banks and mesic habitats within chaparral, and North Coast coniferous forest communities between 305 and 1,800 m asl.	Perennial herb June–October	**Presumed absent**—this perennial species was not observed in areas of appropriate habitat in 2005, 2006 or 2011.
Clokey's cryptantha *Cryptantha clokeyi*	—	—	1B.2	Mojavean desert scrub communities between 725 and 1365 m asl.	Annual herb April	**None**—the site lies outside of the geographic range and below the elevational range of this species.
Santa Susana tarplant *Deinandra minthornii*[8]	—	Rare	1B.2	Sandstone outcrops and crevices in chaparral and coastal scrub communities between 280 and 760 m asl.	Perennial Deciduous shrub July–November	**None**—the site lies outside the geographic range of the species, and suitable sandstone outcrop habitat is not present.
Slender-horned spineflower *Dodecahema leptoceras*	FE	SE	1B.1	Sandy soils in flood-deposited terraces and washes in alluvial scrub communities between 200 and 760 m asl	Annual herb April–June	**Presumed absent**—suitable habitat is present along alluvial terraces associated with Oak Springs Canyon and the Santa Clara River; however, this species was not observed in 2005, 2006 or 2011 during appropriately timed surveys.

7 See *Satureja mimuloides* in the 1993 edition of *The Jepson Manual*.

8 State-listed as *Hemizonia minthornii*; see this name in the 1993 edition of *The Jepson Manual*.

Common name *Scientific name*	Federal status	State status	CNPS List	Habitat	Growth form Blooming period*	Potential to occur on site
San Gabriel bedstraw *Galium grande*	—	—	1B.2	Open chaparral and low, open oak forest; on rocky slopes between 425 and 1,500 m asl.	Perennial Deciduous shrub January–July	**None**—suitable granitic outcrops are not present and the site is not within the geographic range of the species, which lies to the south, within the San Gabriel Mountains.
Palmer's grapplinghook ***Harpagonella palmeri***	**—**	**—**	**4.2**	**Clay soils in chaparral, coastal scrub, and valley and foothill grassland communities between 20 and 955 m asl.**	**Annual herb** **March–May**	**Present—a population of this species was observed in 2011 along the ridgeline separating the project site from Robinson Ranch, to the south.**
Newhall sunflower *Helianthus inexpectatus*[9]	—	—	1B.1	Freshwater marshes and swamps and riparian woodland communities near 305 m asl.	Rhizomatous herb August–October	**None**—this species is highly conspicuous, even outside the blooming season, and a lack of observation in 2005, 2006 and 2011 is considered conclusive evidence that it is not present on site.
Los Angeles sunflower *Helianthus nuttallii* ssp. *parishii*	—	—	1A	Presumed extinct. Coastal, salt and freshwater marshes and swamps between 5 and 1,675 m asl.	Perennial rhizomatous herb August–October	**None**—this species is highly conspicuous, even outside the blooming season, and a lack of observation in 2005, 2006 and 2011 is considered conclusive evidence that it is not present on site.
Parry's sunflower *Hulsea vestita ssp. parryi*	—	—	4.3	Rocky, granitic or carbonate openings within lower montane coniferous forest, pinyon and juniper woodland, and upper montane coniferous forest communities between 1370 and 2895 m asl.	Perennial herb April–August	**None**—the site lies below the elevational range and outside the geographic range of the species.
Southern California black walnut ***Juglans californica***	**—**	**—**	**4.2**	**Chaparral, cismontane woodland and coastal scrub communities between 50 and 900 m asl.**	**Deciduous tree** **March–August**	**Present—observed on site in 2005, 2006 and 2011**
Fragrant pitcher sage *Lepechinia fragrans*	—	—	4.2	Chaparral communities between 20 and 1,310 m asl.	Shrub March–October	**None**—the project site is outside the geographic range of the species, which lies south of the Santa Clara Divide.
Ross's pitcher sage *Lepechinia rossii*	—	—	1B.2	Soils derived from fine-grained, reddish sedimentary rock in chaparral communities between 305 and 790 m asl.	Perennial shrub May–September	**None**—the project site is outside the geographic range of the species, which lies north of the site in the Liebre Mountains.

9 Not included in the 1993 edition of *The Jepson Manual*.

Common name *Scientific name*	Federal status	State status	CNPS List	Habitat	Growth form Blooming period*	Potential to occur on site
Davidson's bushmallow *Malacothamnus davidsonii*	—	—	1B.2	Sandy washes within cismontane woodland, coastal scrub, riparian woodland and chaparral between 180 and 855 m asl.	Perennial Deciduous shrub June–January	**None**—this species is highly conspicuous, even outside the blooming season, and a lack of observation in 2005, 2006 and 2011 is considered conclusive evidence that it is not present on site.
Moran's navarretia *Navarretia fossalis*	FT	—	1B.1	Vernal pools, chenopod scrub, marshes, swamps and playas on San Diego hardpan and San Diego claypan soils between 30 and 1,300 m asl.	Annual herb April–June	**Presumed absent**—marginal habitat is present within drying habitats on site, such as road ruts and depressions on alluvial terraces; however, the species was not observed within appropriately timed surveys in 2005, 2006 or 2011.
Ojai navarretia *Navarretia ojaiensis*[10]	—	—	1B.1	Heavy soils in openings in chaparral, coastal scrub, and valley and foothill grassland communities between 275 and 620 m asl.	Annual herb May–July	**Presumed absent**—habitat is present along the ridgeline in the southern portion of the project site; however, the species was not observed within appropriately timed surveys in 2005, 2006 or 2011.
Piute Mountains navarretia *Navarretia setiloba*	—	—	1B.1	Clay or gravelly loam soils in cismontane woodland, pinyon and juniper woodland, and valley and foothill grassland communities between 305 and 2,100 m asl.	Annual herb April–July	**Presumed absent**—habitat is present in many areas of the project site; however, the species was not observed within appropriately timed surveys in 2005, 2006 or 2011.
Short joint beavertail *Opuntia basilaris* var. *brachyclada*	—	—	1B.2	Sandy soil or coarse granitic loam within chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon juniper woodland and riparian woodland communities between 425 and 1,800 m asl.	Perennial stem succulent April–June	**None**—beavertail cactuses on site do not match the characteristics of this taxon and are referable to the common variety, *O. basilaris* var. *basilaris*. Short joint beavertail is known from higher elevations than the project site and is thought not to be present in the Santa Clarita Valley.
Hubby's phacelia *Phacelia hubbyi*[11]	—	—	4.2	Gravelly, rocky, talus habitats in chaparral, coastal scrub, and valley and foothill grassland from 0 to 1000 m asl.	Annual herb April–June	**Presumed absent**—*Phacelia cicutaria* plants on site are referable to var. *hispida*, using the 1993 edition of *The Jepson Manual*.
Mojave phacelia *Phacelia mohavensis*	—	—	4.3	Sandy or gravelly soils within cismontane woodland, lower montane coniferous forest, meadow, seep, and pinyon and juniper woodland communities between 1,400 and 2,500 m asl.	Annual herb April–August	**None**—the site lies below the elevational range and outside the geographic range of the species.

10 Not in the 1993 edition of *The Jepson Manual*

11 Treated as *Phacelia cicutaria var. hubbyi* in the 1993 edition of *The Jepson Manual*.

Common name *Scientific name*	Federal status	State status	CNPS List	Habitat	Growth form Blooming period*	Potential to occur on site
Chaparral ragwort *Senecio aphanactis*	—	—	2.2	Drying alkaline flats in chaparral, cismontane woodland, and coastal scrub habitats between 15 and 800 m asl.	Annual herb January–April	**Presumed absent**—marginal habitat is present within drying habitats on site, such as road ruts and depressions on alluvial terraces; however, the species was not observed within appropriately timed surveys in 2005, 2006 or 2011.
Mason's neststraw ***Stylocline masonii***	**--**	**--**	**1B.1**	**Sandy habitats within chenopod scrub and pinyon juniper woodland communities between 100 and 1,200 m asl.**	**Annual herb** **March–May**	**Present—observed within open, sandy habitat supporting sparse native herbaceous vegetation on the terraces of Oak Springs Canyon in the southwestern portion of the site.**
Greata's aster *Symphyotrichum greatae*[12]	—	—	1B.3	Mesic habitats in broadleaved upland forest, chaparral, cismontane woodland, riparian woodland and lower montane coniferous forest communities between 300 and 2,010 m asl.	Perennial rhizomatous herb June–October	**Presumed absent**—suitable habitat is present associated with riparian edges and other shady, mesic habitats on site; however, this species was not observed in 2005, 2006 or 2011 and is therefore presumed not to be present on site.
Monocots						
Mt. Pinos onion *Allium howellii* var. *clokeyi*	—	—	1B.3	Great Basin scrub and pinyon and juniper woodland communities between 1,300 and 1,800 m asl.	Perennial bulbiferous herb April–June	**None**—the site lies below the elevational range and outside the geographic range of the species.
Slender mariposa lily *Calochortus clavatus* var. *gracilis*	—	—	1B.2	Shaded foothill canyons, often on grassy slopes within chaparral and coastal scrub communities between 360 and 1,000 m asl.	Perennial bulbiferous herb March–June	**Presumed absent**—suitable habitat is present; however, this species was not observed during appropriately timed surveys conducted in 2005, 2006 and 2011.
Plummer's mariposa lily *Calochortus plummerae*	—	—	1B.2	Rocky and sandy sites, usually of granitic or alluvial material in coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, and lower montane coniferous forest communities between 100 and 1,700 m asl.	Perennial bulbiferous herb May–July	**Presumed absent**—suitable habitat is present; however, this species was not observed during appropriately timed surveys conducted in 2005, 2006 and 2011.

12 Treated as *Aster greatae* in the 1993 edition of *The Jepson Manual*.

Common name *Scientific name*	Federal status	State status	CNPS List	Habitat	Growth form Blooming period*	Potential to occur on site
Ocellated Humboldt lily *Lilium humboldtii* ssp. *ocellatum*[13]	—	—	4.2	Openings in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland communities between 30 and 1,800 m asl.	Bulbiferous herb March–July (August)	**Presumed absent**—suitable habitat is present within wooded portions of the property. This species is extremely conspicuous during the blooming period and due to a lack of observations in 2005, 2006 and 2011 is presumed not to be present on site.
California Orcutt grass *Orcuttia californica*	FE	SE	1B.1	Vernal pools between 15 and 660 m asl.	Annual herb April–August	**Presumed absent**—marginal habitat is present within drying habitats on site, such as road ruts and depressions on alluvial terraces; however, the species was not observed within appropriately timed surveys in 2005, 2006 or 2011.

** – Months given in parentheses indicate dates on which unusually early or late flowering records have been reported*

Status abbreviations

Federal
FE: Federally listed as Endangered
FT: Federally listed as Threatened
FC: Federal Candidate for listing as Endangered or Threatened common elsewhere
State
SE: State listed as Endangered

CNPS lists
1A: presumed extinct in California
1B: rare, threatened, or endangered in California and elsewhere
2: rare, threatened, or endangered in California, but more
4: limited distribution

CNPS threat ranks
0.1: seriously threatened in California
0.2: fairly threatened in California
0.3: not very threatened in California

13 Includes *Lilium humboldtii* var. *bloomerianum* and *L. fairchildii*.

Table 2
Special-status animal species observed on site or reported from the project region

Common name *Scientific name*	Federal status	State status	Other lists	Habitat	Potential to occur on site
Insects					
Monarch butterfly (wintering sites) *Danaus plexippus*	—	—	CDFG Special Animals List	Roosts located in wind-protected tree groves (especially eucalyptus and Monterey cypress), with nectar and water sources nearby. Winter Roost sites extend along the coast from northern Mendocino County to Baja California, Mexico.	**None**—the site is too far from the coast to provide suitable wintering roosting habitat for this species.
Fish					
Santa Ana sucker *Catostomus santaanae*	FT, FSS	SSC	—	Habitat generalist, but prefers sand, rubble, or boulder bottoms, in cool, clear water with algae to graze.	**Low**—may be periodically present within on-site portions of the Santa Clara River during periods of seasonal inundation; not expected within any portion of Oak Springs Canyon.
Unarmored threespine stickleback *Gasterosteus aculeatus williamsoni*	FE, FSS	SE, CDFG Fully Protected	—	Cool, clear water with abundant vegetation in weedy pools, backwaters and among emergent vegetation at the stream edge in small Southern California streams.	**Low**—may be periodically present within on-site portions of the Santa Clara River during periods of seasonal inundation; not expected within any portion of Oak Springs Canyon.
Arroyo chub *Gila orcuttii*	FSS	SSC	—	Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	**Low**—may be periodically present within on-site portions of the Santa Clara River during periods of seasonal inundation; not expected within any portion of Oak Springs Canyon.
Santa Ana speckled dace *Rhinichthys osculus* ssp. 3	FSS	SSC	—	Requires permanent flowing streams with summer water temperatures of 17 to 20 degrees C. Usually inhabits shallow cobble and gravel riffles. Occurs in the headwaters of the Santa Ana and San Gabriel Rivers.	**None**—not known to occur within the Santa Clara River.
Amphibians					
Arroyo toad *Anaxyrus californicus*	FE	SSC	—	Rivers, washes or intermittent streams with sandy banks, willows, cottonwoods and sycamores within valley-foothill, desert riparian and desert wash communities in semi-arid regions; loose gravelly areas of streams in drier parts of range.	**None**—riparian habitats on site lack the extensive leaf litter and duff characteristics that are typical of arroyo toad aestivation localities in the region. Seasonal flows within on-site watercourses are too swift to provide suitable breeding habitat.

Common name *Scientific name*	Federal status	State status	Other lists	Habitat	Potential to occur on site
California red-legged frog *Rana draytonii*	FT	SSC	—	Requires 11 to 20 weeks of permanent water for larval development; must have access to aestivation habitat. Occurs in lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation.	**None**—permanent, fresh water habitat is not present on site.
Sierra Madre yellow-legged frog *Rana muscosa*	FE, FSS	SSC	—	Always encountered within a few feet of water. Tadpoles may require 2 to 4 years to complete their aquatic development. Federal listing refers to populations in the San Gabriel, San Jacinto and San Bernardino Mountains only.	**None**—the site is below the elevational range of the species, and permanent, fresh water habitat is not present on site.
Western spadefoot ***Spea hammondii***	**BLMS**	**SSC**	**—**	**Vernal pools and other areas of seasonally ponded water, primarily in grasslands habitats, but can be found in valley-foothill hardwood woodlands.**	**Present—observed on site in pools within by tire ruts on dirt roads during focused surveys conducted by Compliance Biology and Impact Sciences in 2006, and presumed to extant on site as of 2011.**
Reptiles					
Silvery legless lizard *Anniella pulchra pulchra*	FSS	SSC	—	Leaf litter associates with sandy or loose loamy soil of high moisture content under sparse vegetation	**Moderate**—suitable habitat is present associated with drainage courses and adjacent terraces.
Coastal whiptail ***Aspidoscelis tigris stejnegeri***	**—**	**—**	**CDFG Special Animals List**	**Various habitats in firm, sandy or rocky soils within sparse vegetation, open areas, woodlands and riparian communities of deserts and semi-arid areas.**	**Present—observed on site in 2011, and presumably in 2006. The 2006 sighting refers to individuals of orange-throated whiptail, but this species does not occur in the region and the sighted is presumed to be a misidentification of coastal whiptail.**
Rosy boa *Charina trivirgata*	BLMS, FSS	—	—	Habitats with a mix of brushy cover and rocky soil such as coastal canyons and hillsides, desert canyons, washes and mountains in desert and chaparral from the coast to the Mojave and Colorado Deserts	**High**—suitable habitat is present within all scrub and chaparral communities on site.
Western pond turtle *Emys marmorata*	BLMS, FSS	SSC	—	Requires basking sites such as partially submerged logs, vegetation mats or open mud banks and needs suitable nesting sites in permanent or near permanent bodies of water in many habitat types below 2,000 m asl.	**None**—suitable basking pool habitat is not present on site or within a proximity that would allow aestivation by this species on site.
Coast horned lizard ***Phrynosoma blainvillii***	**BLMS, FSS**	**SSC**	**—**	**Occurs in relatively open areas of coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest habitat on sandy soils, often in association with harvester ants.**	**Present—observed on site in 2006 and presumed to be extant on site as of 2011.**

Common name *Scientific name*	Federal status	State status	Other lists	Habitat	Potential to occur on site
Two-striped garter snake *Thamnophis hammondii*	BLMS, FSS	SSC	—	Perennial and intermittent streams having rocky or sandy beds and artificially created aquatic habitats (manmade lakes and stock ponds); requires dense riparian vegetation. From sea level to 2,400 m (8,000 ft).	**Moderate**—may be present within and adjacent to the Santa Clara River during periods of seasonal inundation.
Birds					
Great egret (rookery) *Ardea alba*	—	CDF	—	Colonial nester in large trees. Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes.	**None**—although individual great egrets have been documented on site, no large aggregations have ever been noted during the course of surveys conducted in 2005, 2006, or 2011.
Cooper's hawk (nesting) *Accipiter cooperii*	—	CDFG Watch List	—	Nests in open forests, groves, or trees along rivers, or low scrub of treeless areas. The wooded area is often near the edge of a field or water opening.	**High**—suitable nesting habitat is present on site within all coast live oak dominated habitats.
Southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	—	CDFG Watch List	—	Frequents relatively steep, often rocky hillsides with grass and forb patches. Resident in Southern California coastal sage scrub and mixed chaparral.	**Moderate**—suitable habitat is present within chamise dominated habitats.
Grasshopper sparrow *Ammodramus savannarum*	—	—	CDFG Special Animals List	Occurs in dry, dense grasslands, especially those with a variety of grasses and tall forbs and scattered shrubs for singing perches. Apparently, a thick cover of grasses and forbs is essential for concealment.	**Moderate**—suitable habitat is present within non-native grassland on site.
Bell's sage sparrow *Amphispiza belli belli*	BCC	CDFG Watch List	—	Nests on the ground beneath shrubs or in shrubs 6 to 18 inches above the ground within chaparral communities dominated by fairly dense stands of chamise or in coastal scrub in southern part of the range.	**Moderate**—suitable habitat is present within all chaparral communities on site.
Burrowing owl (burrow sites) *Athene cunicularia*	BCC, BLMS	SSC	—	Open, dry grassland and desert habitats throughout California, or scrublands characterized by low-growing, widely spaced vegetation. Dependent upon burrowing mammals, especially California ground squirrel.	**Low**—suitable habitat may be present during favorable years within herbaceous-dominated and disturbed communities. As of June 2011, such communities were too densely vegetated to provide suitable habitat for this species.
Oak titmouse (nesting) ***Baeolophus inornatus***	**—**	**—**	**ABC, AWL, USBC**	**Primarily associated with oaks. Occurs in montane hardwood-conifer, montane hardwood, blue, valley, and coastal oak woodlands, and montane and valley foothill riparian habitats in cismontane California, from the Mexican border to Humboldt County.**	**Present—observed in 2006. Nesting habitat is present and the species is presumed to be extant on site as of 2011.**

Common name *Scientific name*	Federal status	State status	Other lists	Habitat	Potential to occur on site
Costa's hummingbird (nesting) ***Calypte costae***	**—**	**—**	**USBC, AWL, ABC**	**Occurs primarily in arid scrub and chaparral habitats and in riparian edge. Various herbaceous and woody plants provide flower nectar; also takes small insects and spiders. In winter, exotic shrubs such as bottlebrush important. Nest sometimes located close to water source, but more often well away from water.**	**Present—nesting habitat is present. This species was observed in 2006 and is presumed to be extant on site as of 2011.**
Northern harrier (nesting) *Circus cyaneus*	—	SSC, CDFG Fully Protected	—	Uses tall grasses and forbs in wetland, or at wetland/field border, for cover; roosts on ground. Nests on ground in shrubby vegetation, usually at marsh edge.	**None**—this species has been observed on site, but only as a foraging individual, and nesting habitat is not present.
Western yellow-billed cuckoo (nesting) *Coccyzus americanus occidentalis*	FC, BCC, FSS	SE	—	Nests in riparian jungles of willow often mixed with cottonwood with an understory of blackberry, nettles or wild grape.	**None**—riparian communities on site are not extensive or dense enough to provide good habitat for this species.
Yellow warbler (nesting) Dendroica petechia brewsteri	—	SSC	—	Riparian plant associations, preferably of willow, cottonwood, aspen, sycamore and alder for nesting and foraging. Also nests in montane shrubbery of open conifer forests.	**Presumed absent**—observed in 2006, but this individual was determined to be a transient.
White-tailed kite (nesting) ***Elanus leucurus***	**—**	**CDFG Fully Protected**	**—**	**Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows or marshes for foraging close to close to isolated, dense-topped trees for nesting and perching.**	**Present—observed in 2006 and presumed to be extant on site as of 2011.**
Southwestern willow flycatcher (nesting) *Empidonax traillii extimus*	FE, FSS (full species)	SE (full species)	USBC, AWL, ABC (all include full species)	Dense willow thickets are required for nesting and roosting. Nesting site usually near languid stream, standing water, or seep. Most numerous where extensive thickets of low, dense willows edge on wet meadows, ponds, or backwaters.	**Presumed absent**—an unidentified species of *Empidonax* flycatcher was observed in 2006, as included in the species list for the Protocol Survey Results for Least Bell's Vireo and Southwestern Willow Flycatcher, prepared by Ecological Sciences, Inc. However, as discussed in that report, the site lacks habitat attributes that would make the site suitable for this species.

Common name *Scientific name*	Federal status	State status	Other lists	Habitat	Potential to occur on site
California horned lark *Eremophila alpestris actia*	—	CDFG Watch List	LAA (full species, coastal slope)	Inhabits coastal regions from Sonoma County to San Diego County. Also known from the main part of the San Joaquin valley east to the foothills. Inhabitant of short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats. Requires open areas with short vegetation, sparse brush, and a preponderance of bare ground. Populations in the southeastern portions of Los Angeles County appear to belong to the coastal subspecies *actia*, whereas the few birds breeding in the San Fernando Valley may belong to the widespread Mojave Desert subspecies *ammophila*.[14]	**Moderate**—suitable habitat is present with areas of sparse grassland and drainage courses and adjacent terraces.
Prairie falcon (nesting) *Falco mexicanus*	BCC	CDFG Watch List	LAA	Breeds on cliffs in dry, open terrain and forages far afield, even to marshlands and ocean shores. Forages widely over desert scrub and arid grasslands, but nesting is generally confined to sheltered cliff ledges, potholes, and caves in rugged terrain. Apparently, no longer occupy certain locations from which historical records exist. Fewer than 10 pairs remaining in Los Angeles County.[15]	**None**—suitable high cliff wall habitat is not present on site.
Yellow-breasted chat (nesting) *Icteria virens*	—	SSC	—	Summer resident in riparian thickets of willow and other brushy tangles such as blackberry and wild grape near water courses.	**Presumed absent**—observed in 2006, but this individual was determined to be a transient.
Loggerhead shrike (nesting) *Lanius ludovicianus*	BCC	SSC	LAA (coastal slope wintering)	Found in broken woodlands, savanna, pinyon-juniper woodland, Joshua tree woodland, riparian woodland, desert oases, scrub, and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting. Largely avoid urban areas and face declines due to the development and conversion of scrubland, grassland, and agricultural areas. Wintering birds have declined severely on the coastal slope and valleys along with the habitat they depended upon.[16]	**Presumed absent**—observed in 2006, but this individual was determined to be a transient.

14 Allen, LW, et al. 2009. Los Angeles County's Sensitive Bird Species. *Western Tanager*. 75(3).

15 Allen, LW, et al. 2009. Los Angeles County's Sensitive Bird Species. *Western Tanager*. 75(3).

16 Allen, LW, et al. 2009. Los Angeles County's Sensitive Bird Species. *Western Tanager*. 75(3).

Common name *Scientific name*	Federal status	State status	Other lists	Habitat	Potential to occur on site
Nuttall's woodpecker ***Picoides nuttallii***	**BCC**	**—**	**ABC**	**Tree cavities and foliage provide cover. Excavates nesting cavity from 0.6 to 18 m (2 – 60 feet) above ground. Nest located mostly in riparian habitat in dead (occasionally live) trunk or limb of willow, sycamore, cottonwood, or alder; rarely in oaks.**	**Present—observed in 2006. Nesting habitat is present and the species is presumed to be extant on site as of 2011.**
Coastal California gnatcatcher *Polioptila californica californica*	FT	SSC	USBC, AWL, ABC	Obligate permanent resident of coastal sage and alluvial scrub habitats below 800 m asl in southern California.	**Presumed absent**—not detected during protocol-level surveys conducted in 2006. Areas of otherwise appropriate habitat on site are too small in extent to provide suitable nesting habitat for this species.
Chipping sparrow *Spizella passerina*	—	—	CDFG Special Animals List	Mostly uses trees for nesting, resting, singing, and other cover; also shrubs and ground herbage used.	**Presumed absent**—observed in 2006, but this was likely a transient individual.
Lawrence's goldfinch (nesting) *Spinus lawrencei*	BCC	—	USBC, AWL, ABC	Closely associated with oaks. Nests in open oak or other arid woodland and chaparral near water. Nearby herbaceous habitats used for feeding.	**High**—observed in 2006 as a transient, but nesting habitat is present on site within oak-dominated communities.
Least Bell's vireo *Vireo bellii pusillus*	FE, BCC	SE	USBC, AWL, ABC	Resident below about 600 m (2,000 ft) in willows and other low, dense valley foothill riparian habitat. Thickets of willow and other low shrubs afford nesting and roosting cover. May inhabit thickets along dry, intermittent streams.	**Presumed absent**—not detected during protocol-level surveys conducted in 2006.
Mammals					
Pallid bat *Antrozous pallidus*	FSS, BLMS	SSC	WBWG High	Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Night roosts may be in more open sites, such as porches and open buildings.	**Moderate**—suitable roosting habitat is present within trees on site.
Spotted bat *Euderma maculatum*	BLMS	SSC	WBWG High	Prefers to roost in rock crevices. Occasionally found in caves and buildings. Cliffs provide optimal roosting habitat.	**None**—suitable roosting habitat is not present.
Western mastiff bat *Eumops perotis californicus*	BLMS	SSC	WBWG High	Roosts in crevices in cliff faces, high buildings, trees and tunnels within many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, *etc.*	**Moderate**—suitable roosting habitat is present within trees on site.
Hoary bat *Lasiurus cinereus*	—	—	WBWG Medium	Habitats suitable for bearing young include all woodlands and forests with medium to large-size trees and dense foliage. Generally roosts in dense foliage of medium to large trees.	**Moderate**—suitable roosting habitat is present within trees on site.

Common name *Scientific name*	Federal status	State status	Other lists	Habitat	Potential to occur on site
San Diego black-tailed jackrabbit ***Lepus californicus bennettii***	**—**	**SSC**	**—**	**Shrub habitats and intermediate canopy stages of shrub habitats and open shrub/herbaceous and tree/herbaceous edges.**	**Present—observed in 2006 and presumed to be extant on site as of 2011.**
California leaf-nosed bat *Macrotus californicus*	FSS	SSC	WBWG High	Roosts in rocky, rugged terrain with mines or caves in riparian, wash, succulent scrub, alkali scrub and palm oasis habitats of deserts.	**Not expected—**the site may be outside the geographic range of this primarily desert-adapted species; suitable roosting habitat is present within trees on site.
Lodgepole chipmunk *Neotamias speciosus speciosus*	—	—	CDFG Special Animals List	Usually found in open canopy forests, lodgepole pine forests in the San Bernardino Mountains and chinquapin slopes on the San Jacinto Mountains	**None—**the site lies below the elevational range and outside of the geographical range of this species, which lies south of the site within the higher elevations of the San Gabriel Mountains.
San Diego desert woodrat ***Neotoma lepida intermedia***	**—**	**SSC**	**—**	**Moderate to dense canopies in coastal scrub of southern California from San Diego County to San Luis Obispo County. Particularly abundant in rock outcrops, rocky cliffs and slopes.**	**Presumed present—suitable habitat is plentiful within scrub communities on site.**
Southern grasshopper mouse *Onychomys torridus ramona*	—	SSC	—	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropod prey, especially scorpions and orthopterans.	**Moderate—**suitable habitat is present throughout most of the flat areas of the site supporting sparse scrub vegetation.

Status abbreviations

Federal
FE: Federally listed as Endangered
FT: Federally listed as Threatened
FC: Federal Candidate species
BLMS: Bureau of Land Management Sensitive Species
FSS: USDA Forest Service Sensitive Species
BCC: Fish and Wildlife Service Birds of Conservation Concern

State
SE: State-listed as Endangered
CDF: California Department of Forestry and Fire Protection Sensitive Species
SSC: CDFG Species of Special Concern

Other
AWL: Audubon Watchlist
ABC: American Bird Conservancy Green List
LAA: Los Angeles Audubon list of Los Angeles County's Sensitive Bird Species
USBC: United States Bird Conservation Watch List
WBWG: Western Bat Working Group: High, Medium and Low Priority