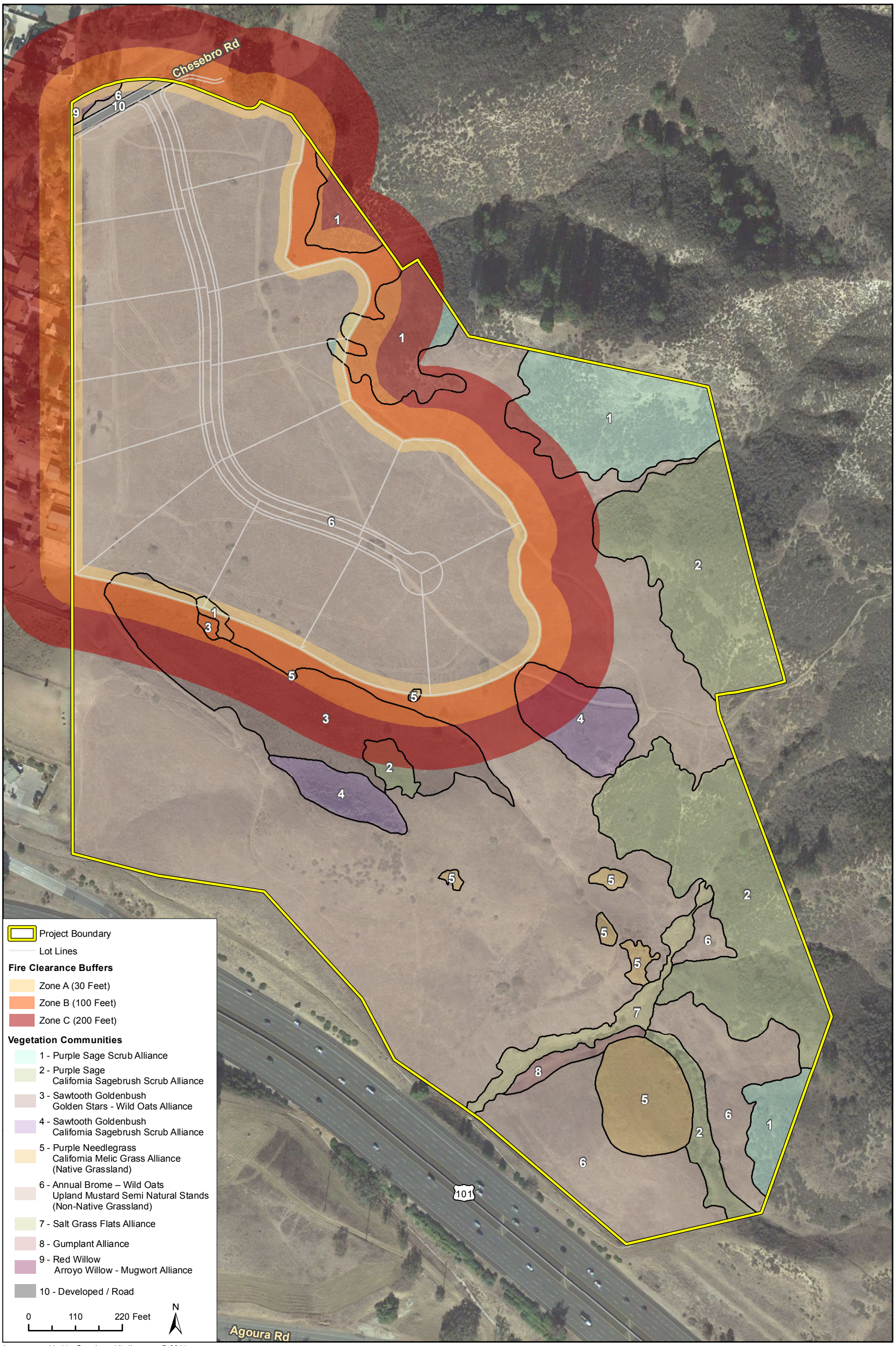
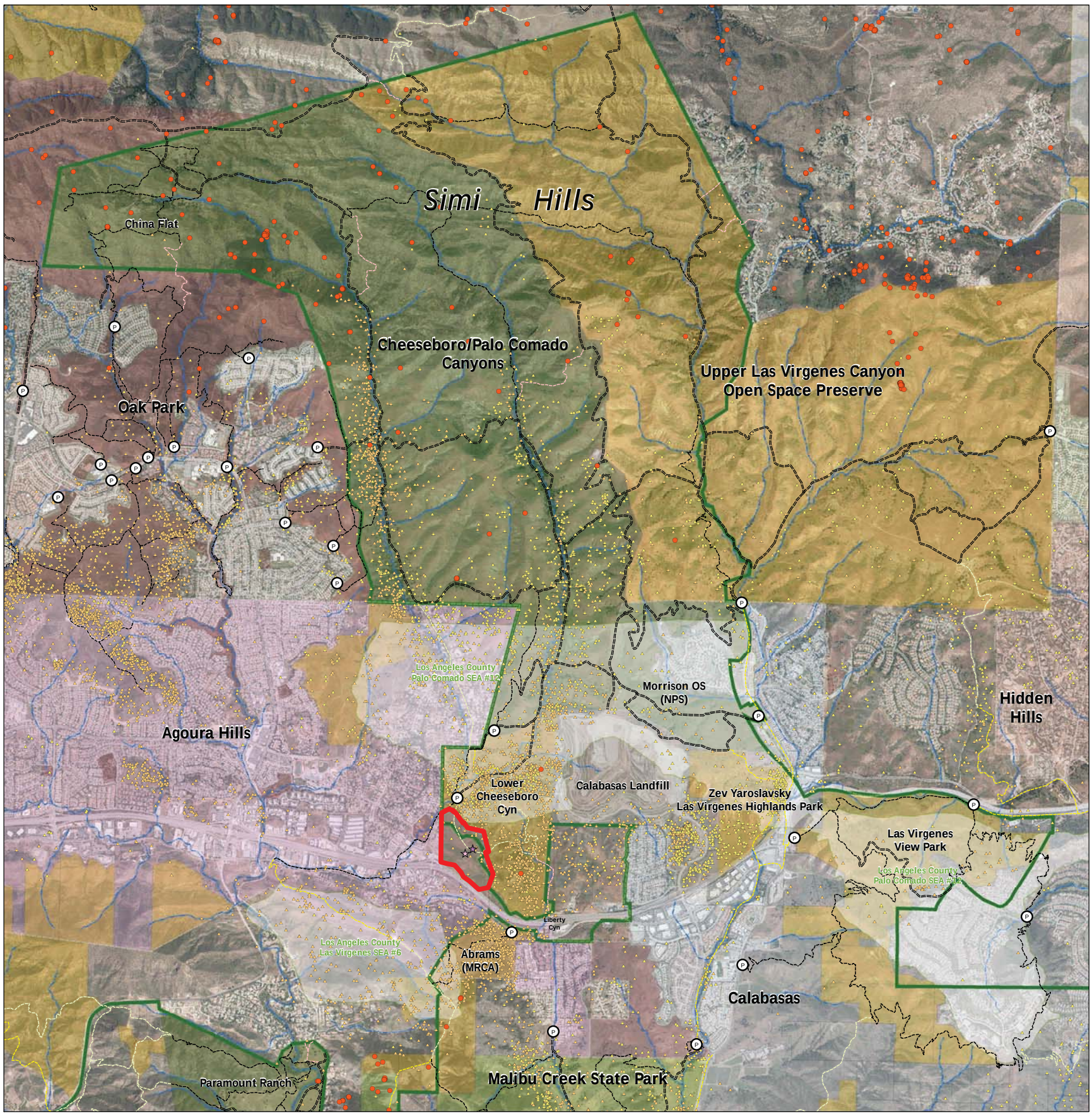


Imagery provided by Google and its licensors © 2014.

Fire Clearance Impacts on Vegetation Communities

Figure 4.2-5



Source: NPS SMMNRA GIS, 2013.

Land Ownership,Vegetation and Wildlife Use

Figure 4.2-6

Table 4.2-3
Vegetation Impacted and Retained on the Project Site (Acres)[a]

Habitat Type	Total Existing Habitat	Phase 1 Impacts	Phase 2 Impacts		Habitat Retained Onsite
		Grading	Grading	Onsite Fuel Clearance (Zone A/ B)[b]	
Annual Brome Wild Oats - Upland Mustard Semi Natural Stands (Non-Native Grassland)	50.4	3.6	19.3	5.4	22.1
Purple Sage Scrub Alliance	4.8	<0.1	0.1	1.9	2.8
Purple Sage - California Sagebrush Scrub Alliance	8.2	-	-	0.2	8.1
Sawtooth Goldenbush - Golden Stars - Wild Oats Alliance	3.5	<0.1	<0.1	1.0	2.4
Sawtooth Goldenbush-California Sagebrush Scrub Alliance	1.7	-	-	0.1	1.6
Salt Grass Flats Alliance	0.7	-		-	1.5
Purple Needlegrass - California Melic Grass Alliance (Native Grassland)	1.5	-	<0.1	<0.1	0.3
Gumplant Alliance	0.3	-		-	0.7
Red Willow-Arroyo Willow- Mugwort Alliance	0.1	-	0.1	0.1	-
Developed/Road	0.1	-	-	-	-
TOTAL	**71.3**	**3.8**	**19.6**	**8.7**	**39.5**

a. Offsite (outside the project boundary shown in Figure 4.2.5) fuel modification would result in the removal of approximately 3.9 acres of predominantly coastal sage scrub, as discussed below.

b. Onsite Zones A and B Phase 2 fuel clearance of individual lots is measured and calculated as the first 100 feet from the 25-foot rear setback line of each lot (to account for maximum theoretical buildout of habitable structures).

In addition to the onsite removal shown in Table 4.2-3, potential offsite (outside the project boundary, as shown in Figure 4.2-5) fire department required fuel modification (Zones A–C) associated with the development of individual lots under Phase 2 may impact up to 3.9 acres of adjacent intact native habitat, composed mostly of coastal sage scrub with small areas of annual grassland and riparian habitat.

Table 4.2-4
Phase 2 Fuel Modification (Vegetation Thinning) Onsite Impacts within Zone C (Acres)[a]

Habitat Type	Phase 2 Fuel Modification Thinning Impacts (Zone C)[b]
Annual Brome – Wild Oats-Upland Mustard Semi Natural Stands	2.5
Purple Sage Scrub Alliance	1.2
Purple Sage - California Sagebrush Scrub Alliance	0.1
Sawtooth Goldenbush - Golden Stars - Wild Oats Alliance	1.8
Sawtooth Goldenbush- California Sagebrush Scrub Alliance	0.4
TOTAL	**6.0**

a. Offsite (outside the project boundary as shown in Figure 4.2-5) fuel modification would result in the removal of approximately 3.9 acres of predominantly coastal sage scrub, as discussed below.
b. Zone C Phase 2 fuel modification is for the development of individual lots. The onsite area is calculated from 100 to 200 feet from the 25-foot rear setback line of each lot (to account for maximum theoretical buildout of habitable structures).

Impact BIO-1 Neither phase of the project would result in the reduction of a CDFW or USFW listed or candidate wildlife species habitat or population, or restrict a reproductive capacity. Either phase of the project may, however, reduce the species population, reduce habitat, and restrict reproductive capacity of other special status wildlife species. This is a Class II, *less than significant with mitigation incorporated* impact.

No federal or state listed wildlife species are expected to use the habitats present at the site except potentially on rare, transient occurrences, as discussed in the Special Status Biological Resources Section above. The development of the project site during either of the phases would not be expected to cause direct take of listed species that could occur. The listed least bell's vireo (FE/SE) and coastal Californian gnatcatcher (FT), both with low a potential to occur, are all highly mobile birds. No significant impact associated with federal or state listed wildlife species (i.e., threated, endangered) would occur.

Marginally suitable habitat for coast horned lizard (SSC) is present onsite, though sandy substrate is generally limited. Nonetheless, individuals may be found within very limited sandy open areas of the 22.1 acres of the non-native grassland that would be eliminated by grading and the 5.4 acres that would cleared, or modified for fuel modification (Zone A and B) as part of Phase 2. No significant impacts are expected to the vegetation within fuel modification Zone C since the impacts within this zone are limited to thinning of dense vegetation communities to maintain a 25 percent cover. Higher quality habitat for this lizard is present further to the south and north, outside the City of Agoura Hills limits. Most of the local population is anticipated to be located in large contiguous blocks of habitat outside the urban areas and under the ownership of conservation organizations (e.g., Mountains Restoration Trust), the State of California, and the National Park Service, as shown in Figure 4.2-6. These existing preserved habitat areas and would not be directly or indirectly affected by the proposed development Loss of these individual lizards would be minimal because the development envelope includes only a small amount of suitable scrub habitat. Since the development of the project site would not cause a substantial reduction of coast horned lizard, or suitable habitat, impacts are

considered less than significant with Mitigation Measures BIO-1(a) which requires pre-construction sensitive wildlife survey and impact avoidance.

Silvery legless lizard (SSC) may use the preferred very small moist area onsite that follows Chesebro Canyon creek. Though this area has some leaf litter present, preferred friable soils were not noted onsite. Higher quality habitat for this lizard is present within mesic oak woodlands present to the north within Chesebro/Palo Comado Canyons and Upper Las Virgenes Canyon. Since the development of the project site would not cause a substantial reduction of suitable habitat for the silvery legless lizard, impacts would be adverse, but less than significant.

Coastal western whiptail (SSC) generally prefers open or rocky areas with little vegetation, but may also be found within open scrub habitats where invertebrate prey may be prevalent. A substantial portion of the coastal scrub habitat onsite site will remain in its natural condition that would continue to support this species. As noted by the recent decrease in the level of concern regarding this subspecies, sufficient populations are expected to be present within the preserved open space lands (Santa Monica Mountains National Recreation Area (SMMNRA)) to the north and east of the site such that while construction may result in the loss of individual whiptails, it would not cause a substantial reduction of the local whiptail population. The impact to this lizard would be adverse, but not significant.

Sufficient habitat would remain within the site for the few individuals of San Bernardino ringneck snake (SSC) that may be present within the project site such that a substantial effect on their populations would not occur.

Most of the special status bird species that could occur at the site would do so only as transient individuals, and the proposed project would not have a significant impact on those species. For example, burrowing owl has not been observed within the project site, though it does occur occasionally as a winter migrant in the Santa Monica Mountains. Given the lack of recorded observations in the developable portions of the site and the residual habitat to be retained within the site and present to the south in conserved open space lands, no significant effect would be anticipated.

While several bird species (e.g., northern harrier, California horned lark) may occur at the site as a rare migrant, no suitable breeding habitat is present and no significant effect on these bird's populations would occur. The Southern California rufous crowned sparrow is a "special animal" that is on various "watch lists" due to declining populations, but it is not listed by the CDFW as a species of special concern. It is found in dry, open oak woodlands; treeless dry uplands with grassy vegetation and bushes, often near rocky outcrops. Its known range is in California, southern Arizona, and southern New Mexico east to Texas and central Oklahoma. Developments of the site as proposed would not reduce nesting opportunities for this species, since suitable habitat (hillsides) are not within the development footprint of the project. The project would not result in a substantial reduction of this species habitat and impacts would be adverse, but less than significant.

The portion of Chesebro Canyon Creek within the project site provides marginal riparian habitat for least Bell's vireo. The habitat generally lacks the density and structural complexity

preferred by the species. Further, least Bell's vireo has not been documented within a five-mile radius of the project site (CNDDB 2014). Therefore, based on these facts least Bell's vireo has a low potential to occur on the site. Project activities within Chesebro Canyon Creek would be limited to construction of an outfall structure on the upper embankment of the creek. Substantial amounts of riparian habitat would continue to be present along the riparian area that follows Chesebro Canyon Creek and thus the project would not result in a substantial reduction of this species habitat. Based on these facts, potential impacts would be less than significant. Nonetheless, implementation of BIO-1(b) would further reduce potential impacts to this species and all other nesting birds.

Construction of Phase 1 and Phase 2 of the proposed project and associated fuel modification within Zone A and Zone B, which would occur in Phase 2 as structures are built, would result in the direct, permanent loss of portions of native nesting bird habitats found onsite including non-native grassland (27.5 acres) and coastal scrub (0.5 acre) as well as individual trees. Most native birds are protected under the California Fish and Wildlife Code Section 3503 (any bird nest) and Section 3503.5 (birds of-prey), or Section 3511 (Fully Protected birds). Potential impacts associated with habitat removal and disturbance could occur if site construction occurs during the nesting season (generally February 1 - August 31). Impacts to nesting birds would be significant, but mitigable.

Nest structures for the San Diego desert woodrat were not observed within the development impact zone, and suitable habitat for this species is not expected within most of the development footprint. Therefore, no significant impact to the San Diego desert woodrat would occur.

The project site is not located near cliffs, buildings, forests and woodlands that would serve as bat hibernacula or open water that is required for Yuma myotis foraging. The trees in the development area generally lack the mature stature preferred by tree-roosting bat species, and no oak trees are proposed for removal. Therefore, it is unlikely that any sensitive bats known to be in the general vicinity would roost at the project, and no significant impacts to any bat species would be anticipated. It is unlikely construction of the proposed project would impact foraging bats since construction hours would most likely occur outside of this species nocturnal feeding period. As noted in Table 4.4-2 American badgers would not occur at the site given that sign of this relatively conspicuous animal were not observed during onsite field surveys.

Exterior night lighting during the operational phase of Phase 2 could potentially disrupt normal behavior and breeding for some wildlife species, and cause some species to avoid the residual natural habitats remaining at the site. This would potentially increase the extent of impacts on the adjacent habitats and would contribute to a potentially significant impact on general habitat availability. As discussed in Section 4.1 *Aesthetics,* Impact AES-5, the City Architectural design Standards and Guidelines stipulate that lighting be focused downwards and/or shielded to minimize spill and glare. However, impacts to wildlife may still be considered potentially significant.

Noise levels at the site are primarily influenced by traffic on the 101 Freeway and Palo Comado Canyon Road. The noise level in open space areas on the site would not be substantially increased by traffic or normal activities related to Phase 1 or residential use on the site during

Phase 2 of the project. If construction were to occur during the nesting season when birds are present, the nest buffers required in Mitigation Measure BIO-1(b) would address indirect noise impacts. Wildlife species that currently use the site probably find the level of existing noise at the site acceptable, and those that do not would have already left the area. Additionally, if wildlife is identified during pre-construction surveys, Mitigation Measure BIO-1(a) requires relocation at least 300 feet from the disturbance area. Indirect impacts to wildlife due to increased noise during the operational period would be less than significant.

Mitigation Measures. The applicant shall implement the following mitigation measures to reduce impacts associated with direct impact to coast horned lizard and possible effects to bird nesting.

BIO-1(a) **Pre-Construction Sensitive Wildlife Survey and Impact Avoidance.** Not more than two weeks prior to ground disturbing construction for Phase 1 and Phase 2, as well as ground disturbing fuel modification activities that would remove native habitat, a preconstruction survey for sensitive wildlife species shall be conducted by a qualified biologist satisfactory to the City Environmental Analyst and submitted to the City Environmental Analyst prior to beginning construction and/or commencement of any disturbance. If a sensitive species is found, avoidance is the preferred mitigation option. If avoidance is not feasible, the species shall be captured, when possible, and transferred to adjacent appropriate habitat within the open space onsite or directly adjacent to the project site, at least 300 feet from the disturbance area, or an adequate distance to account for indirect impacts as determined by the approved biologist. This shall be performed only by a biologist approved by the City Environmental Analyst. The CDFW and City Environmental Analyst shall be formally notified and consulted regarding the presence of this species onsite. If a federally listed species is found prior to grading of the site, the USFWS shall also be notified and appropriate "take" permits acquired prior to any relocation activity.

BIO-1(b) **Bird Nesting Surveys and Nest Avoidance.** No earlier than 14 days prior to Phase 1 and 2 construction or site preparation activities that would occur during the nesting/breeding season of native bird species potentially nesting on the site (typically February 1 through August 31), the Applicant shall have a field survey conducted by a qualified biologist satisfactory to the City's Environmental Analyst to determine if active nests of any bird species protected by the state or federal Endangered Species Acts, Migratory Bird Treaty Act, and/or the California Fish and Wildlife Code Sections 3503, 3503.5, or 3511 are present in the construction zone or within 300 feet of the construction zone. If active nests are found within the survey area, construction

activities shall stop until consultation with the City Environmental Analyst, CDFW, and USFWS (when applicable) is conducted and an appropriate setback can be established commensurate with the species involved (25 feet for urban-adapted species such as Anna's hummingbird and California towhee and up to 500 feet for certain raptors). A temporary construction fence barrier shall be erected around the buffer and clearing and construction within the fenced area shall be postponed or halted, at the discretion of a biological monitor, 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. The Applicant shall record the results of the survey(s) and recommended protective measures described above to document compliance with applicable state and federal laws pertaining to the protection of native birds, and provide such report to the City Environmental Analyst.

BIO-1(c) **Lighting Restrictions.** As part of the development of each residential lot in Phase 2 lighting design features shall be incorporated that would reduce the amount and intensity of night lighting in open space areas adjacent to the development. This would involve using lighting only to the extent necessary, using low intensity lights, placing lighting close to the ground when possible, using shields to reduce glare and direct lighting downward, and pointing lights away from open space areas. Lighting from the site should not exceed 1 foot-candle at the edge of the fuel modification zone or edge of residential lot, whichever is closer.

Significance After Mitigation. The mitigation measures identified above would reduce impacts to sensitive wildlife species to a less than significant level.

Impact BIO-2 **Implementation of both phases of the proposed project would not reduce species' population, reduce habitat, or restrict reproductive capacity of CDFW or USFWS listed or candidate plant species. Implementation of the proposed project could result in reduction in the number and habitat of a CNPS rare species. This is a Class II, *less than significant with mitigation incorporated* impact.**

The consideration of whether or not substantial habitat loss occurs to an individual species focuses on those sensitive or special status plants that have been identified by regulatory agencies because of the cumulative decreases in their ranges, or substantial decreases in overall and local population levels. The degree to which a species has suffered such losses is reflected in the identified status level of that species, beginning with initial listing of an organism as a species of special concern through listing as threatened or endangered under the state or federal Endangered Species Acts. Plants and animals that are listed as endangered have suffered such large losses in range and numbers that the additional loss of even a few individuals or a few acres of suitable habitat could result in the extinction of the animal. Implementation of neither

phase of proposed project is would reduce species' population, reduce habitat, and restrict reproductive capacity of endangered, threatened, or rare plant species. This is due, in part, to the clustered siting of the development portion of the project in the flatter valley area onsite, away from steep hillside areas, and adjacent to urban development, and reserving the most sensitive areas as open spaces. The clustering of development is consistent with Agoura Hills General Policy NR-4.4, which requires clustered development.

As discussed above, one special status plant species, round leaved filaree, though not observed during the 2014 surveys, has been previously documented from the project site (SMMNRA, NPS 2013). Round leaved filaree is on the RPR 1B.I list, indicating it is threatened in California with a high degree/immediacy of threat. It is possible that the species did not bloom in 2014 because of drought conditions. Therefore, impacts to this species would be potentially significant but mitigable, and may occur during both phases.

Mitigation Measures. The following mitigation actions are required.

BIO-2(a) **Pre-construction Botanical Survey.** Prior to construction of Phase 1, and development of, and initial fuel clearance for, individual homes in Phase 2 of the project, spring and summer seasonal botanical surveys for special status plants, including round leaved filaree, shall be conducted within the impact area by a qualified botanist satisfactory to the City Environmental Analyst. A summary of the survey shall be provided to the City Environmental Analyst for approval. Impacts from fuel modification requirements shall be considered. If any special status species are observed, avoidance, minimization, and/or mitigation shall be performed to reduce effects. If the species cannot be fully avoided, then the Applicant shall draft a restoration/preservation plan to offset impacts to the species as discussed in Mitigation Measure BIO-2(b).

BIO-2(b) **Mitigation Plan.** In the event that round-leaved filaree, or any other special status plant populations cannot be fully avoided, a Mitigation Plan shall be submitted to the City Environmental Analyst for approval prior to issuance of a grading permit or building permit, whichever occurs first. The mitigation shall be installed by one (1) year after completion of work acceptable to the City. The Applicant shall secure a bond for an amount equal to the cost of the mitigation effort. The bond shall be released by the City upon satisfaction of the approved performance criteria after the monitoring period has expired.

The following methods may be implemented individually, or in conjunction with each other.

Onsite or Offsite Restoration (Salvage and Replanting). Restoration shall involve the collection of seed from within the development

footprint or nearby areas, if necessary, and replanting the seed in a suitable area outside the development footprint but elsewhere on the project site that is set aside for preservation. If infeasible, an offsite location as close to the impact area as possible, but at least within the local watershed, may be used. The Restoration Plan, prepared by a qualified plant ecologist satisfactory to the City Environmental Analyst, shall include, but not be limited to, the following to achieve a performance standard of a 2:1 replacement, or as dictated by a regulatory agency with permitting authority over the species:

- Location of the mitigation/restoration and map;
- Performance criteria (i.e., what is an acceptable success level of re-vegetation to mitigate impacts);
- Plant species, container sizes, and seeding rates;
- Planting schedule;
- Monitoring effort (i.e., who is to check on the success of the re-vegetation plan, and how frequently);
- Contingency planning (i.e., if the effort fails to reach the performance criteria, what remediation steps need to be taken);
- Irrigation method/schedule (i.e., how much water if needed, where and for how long);
- Means to control exotic vegetation; and
- Identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity.

The Applicant shall maintain and monitor the plants for a minimum of five years.

Offsite Preservation. Offsite preservation shall consist of locating a population of the impacted special status plant species containing at least two-times the number of individuals impacted by the project, and preserving the population in perpetuity via placement of a permanent conservation easement or purchase of the land and dedication to the City or an approved conservation organization acceptable to the City. The preserved population shall be located on an area of sufficient size to create a preserve core and be located, as feasible, at least 350 feet away from existing or proposed development, paved roads, v-ditches and irrigated areas. Additionally, the preserve population shall exhibit connectivity to other protected open space or hillside areas. The Preservation Plan shall at least identify the specific location of the preservation site and size; number of individuals preserved; ownership of the land; parties involved; and the preservation methodology (i.e., permanent conservation

easement or dedication to an approved conservation organization, etc.).

Significance After Mitigation. The mitigation measures identified above would reduce impacts to vegetation to less than significant.

Impact BIO-3 Implementation of both phases of the project could result in the disturbance or reduction in extent of onsite and offsite sensitive plant communities. This is a Class II, *less than significant with mitigation incorporated* impact.

As the project development has been clustered at the northern part of the site, near existing residences, impacts to sensitive plant communities have been minimized. However, two onsite vegetation communities considered sensitive by CDFW, Sawtooth Goldenbush - Golden Stars - Wild Oats Alliance (0.3 acre) and Sawtooth Goldenbush- California Sagebrush Scrub Alliance (0.1 acre) (CDFW, 2010).

The City of Agoura Hills considers coastal sage scrub to be an important natural community, which onsite includes the Sawtooth Goldenbush- California Sagebrush Scrub Alliance, Purple Sage Scrub Alliance (4.8 acres), and Purple Sage - California Sagebrush Scrub Alliance (8.2 acres). The 3.9 acres of offsite (outside the project boundary) vegetation which could be affected by Phase 2 fuel modification is generally characterized as coastal sage scrub.

The onsite sensitive communities are located predominantly in the Phase 2 fuel modification zone, as shown in Figure 4.2-5 and Table 4.2-5 below. The table shows grading, fuel modification Zones A–B, and fuel modification Zone C since impacts for each category range from permanent removal (grading) to vegetation thinning (Zone C).

Table 4.2-5
Onsite Impacts to Sensitive Communities (Acres)[a]

Habitat Type	Total Existing Habitat	Grading		Fuel Modification (Phase 2 only)	
		Phase 1	Phase 2	Zones A–B	Zone C
Purple Sage Scrub Alliance	4.8	<0.1	0.1	1.9	1.2
Purple Sage - California Sagebrush Scrub Alliance	8.2	-	-	0.2	0.1
Sawtooth Goldenbush - Golden Stars - Wild Oats Alliance	3.5	<0.1	<0.1	1.0	1.8
Sawtooth Goldenbush- California Sagebrush Scrub Alliance	1.7	-	-	0.1	0.4
TOTAL	**18.2**	**0.2**		**3.2**	**3.5**

The 3.5 acres of Sawtooth Goldenbush - Golden Stars - Wild Oats Alliance present onsite is not considered high value because of its disturbed (wild oats, co-dominant) condition; therefore, removal from grading (less than 0.2 acres) and structural changes from Zones A and B fuel modification (1.0 acres) would not result in significant impacts. The Sawtooth Goldenbush -

Golden Stars - Wild Oats Alliance (1.8 acres) within the fuel modification Zone C will not be impacted since it is open in structure and will not need to be thinned to obtain a 25 percent cover.

The Sawtooth Goldenbush - California Sagebrush Scrub Alliance, Purple Sage - California Sagebrush Scrub Alliance, and Purple Sage Scrub Alliance are relatively intact, with and understory composition of both native and non-native species. Impacts from Phase 1 and 2 grading, onsite fuel modification, and offsite fuel modification to these sensitive intact communities is discussed below.

Phase I and Phase 2 Grading. Since the total area proposed for permanent for removal from Phase 1 and 2 grading is less than 0.1 acres, and the area is on the edge of the intact vegetation in an area which does not harbor substantial populations of either sensitive plants or animals, the habitat is of moderate value and mitigation is not required. Moreover, the scale of the Phase 1 impact (0.1 acre) and the extensive contiguous presence of this community within the adjoining open space (SMMNRA) make the impacts from Phase 1 and 2 grading less than significant.

Onsite Phase 2 Zone C Fuel Thinning. Implementation of onsite Zone C fuel management will also result in alteration of the structure of Sawtooth Goldenbush- California Sagebrush Scrub Alliance (0.4 acre), Purple Sage - California Sagebrush Scrub Alliance (0.1 acres), and Purple Sage Scrub Alliance (1.2 acres). In Zone C these sensitive vegetation communities will be thinned to have a 25 percent cover. The onsite impact from Phase 2 Zone C fuel thinning on approximately 1.7 acres of intact sensitive Sawtooth Goldenbush- California Sagebrush Scrub Alliance, Purple Sage - California Sagebrush Scrub Alliance, and Purple Sage Scrub Alliance would be potentially significant, but mitigable.

Onsite Phase 2 Zones A and B Fuel Modification. Los Angeles County Fire Department Regulations require that in Zone A (between 20 and 500 feet from habitable structures) that native vegetation be removed, which may include replacement with landscaping and hardscape or annual disking. beyond Zone B (to 100 feet from habitable structures) a large percentage of existing vegetation may be removed and replaced with irrigated fire resistant and drought resistant plants, but and may contain some native vegetation if spaced according to planting guidelines. Impacts from the required Phase 2 Zone A and Zone B removal and structural modification to 2.4 acres of sensitive Sawtooth Goldenbush- California Sagebrush Scrub, Purple Sage - California Sagebrush Scrub Alliance, and Purple Sage Scrub Alliance would be potentially significant, but mitigable.

Offsite Phase 2 Fuel Modification. The fuel management zone on Lots 5, 6, 15, 14, 18 may extend offsite into 3.95 acres of intact habitat, including coastal sage scrub (considered sensitive by the City) (Figure 4.2-3) and Chesebro Creek riparian habitat (considered sensitive by CDFW). The two affected adjacent parcels to the north are owned by the City and the State of California (Santa Monica Mountain Conservancy), and consent would be required for any fuel management activities. The parcel owned by the Santa Monica Mountain Conservancy is preserved as open space and habitat in perpetuity. Impacts from 3.95 acres of offsite sensitive coastal sage scrub removal would be potentially significant, but mitigable.

Required tree fuel modification activities are limited to removal of deadwood from the canopy of the oak trees and thinning of laddered fuels in the understory, thus no oak trees are expected to be significantly impacted by project activities (refer to Impact BIO-6 for further discussion of oak trees).

Mitigation Measures. The following mitigation is required.

BIO-3 **Fuel Modification Plan.** For each residential development, the applicant shall prepare a Fuel Modification Plan to address Los Angeles County Fire Department fuel modification requirements. As part of the Plan, impacts to offsite and onsite sensitive communities shall be evaluated by a biologist approved by the City's Environmental Analyst (biologist). Such impacts shall be minimized or avoided if feasible (e.g., using a masonry wall).

The Fuel Modification Plan shall specify the methods of modifying vegetation in the fuel management zone that will avoid impacts to sensitive communities (e.g., specifying removal requirements in each zone, using hand tools to prune vegetation, avoiding sensitive communities). The applicant shall be responsible for retaining a biologist to monitor all fuel modification activities in sensitive communities.

The Applicant shall submit the Fuel Modification Plan to the City Planning and Community Development and County Fire Department for review. Upon acceptance of the Plan by the County Fire Department, the approved plan shall be provided to the City Planning and Community Development prior to the issuance of a grading or building permit (whichever occurs first).

The applicant's biologist shall submit an annual report on fuel modification activities for the first year of the development of each individual lot to the City Planning and Community Development Department by July 1 (June 1 is generally the deadline for fuel modification).

Significance After Mitigation. The mitigation measure identified above would reduce impacts to vegetation to less than significant.

Impact BIO-4 Implementation of Phases 1 and 2 of the proposed project would result in the direct reduction of jurisdictional drainages. This is a Class II, *less than significant with mitigation incorporated* impact.

The project site contains three potentially jurisdictional drainage systems. The larger system occurs in the southeast portion of the site and consists of a main ephemeral stream channel with

two tributaries. This system occurs within designated open space and, as such, no impacts would occur as a result of the proposed project.

A smaller ephemeral stream occurs in the northern portion of the site. This drainage conveys flows for a short distance from the hills north of the site in a northeast-southwest direction before abating into sheet flow in the central/east portion of the site. The drainage has weakly defined bed, bank, and channel characteristics but does not have discernible connectivity to any potentially jurisdictional features downstream. As such, it is likely to be considered jurisdictional by CDFW and RWQCB but is not expected to be subject to USACE jurisdiction. Note that the regulatory agencies make the final jurisdictional determination. The stream may contain habitat for the *California macrophyllo* and dwarf barley, as identified in the NPS National Park Services comment letter dated June 20, 2014 (Appendix A).

The proposed project has been sited to avoid potential jurisdictional drainages to the extent feasible. Based on the current alignment of the proposed trail, however, the smaller ephemeral stream would likely be impacted by trail construction. The proposed trail follows the general alignment of the existing informal trail in this area, and avoidance of the ephemeral stream is not feasible if the trail is to remain. The trail would be approximately four feet wide and the bank to bank width of the ephemeral stream is approximately two feet; therefore, potential impacts would be approximately eight to ten square feet. An additional 20 square feet (5 feet upstream and 5 feet downstream) may be temporarily impacted for construction of the bridge, for a total of 30 square feet of potential impacts.

The ephemeral stream is currently in a disturbed condition and dominated by non-native, weedy species, such as summer mustard. As such, it contains limited function and value as a sensitive biological resource and impacts would be limited to approximately 30 square feet.

Chesebro Canyon Creek traverses a small portion of the northwest corner of the site adjacent to Chesebro Road. It flows in a northeast to southwest direction and contains stands of riparian habitat dominated by willows and mulefat. The creek eventually connects to Medea Creek approximately 1.2 miles southwest of the site. Chesebro Canyon Creek is expected to be subject to the jurisdiction of all three regulatory agencies. Phase 1 of the proposed project involves the construction of drainage improvements, including underground pipes that would collect stormwater and empty it into Chesebro Canyon Creek via a main pipeline. The termination of the main pipeline would consist of a permanent concrete outlet. Assuming an approximate 12-foot by 12-foot permanent outlet and 10-foot buffer for temporary impacts, the structure would impact an estimated 900 square feet (0.02 acre) of potential USACE, RWQCB, and CDFW jurisdiction within the creek. As work within and adjacent to jurisdictional drainages would occur mostly as part of Phase 1 drainage improvements, impact to such resources in Phase 2 are not expected to be significant. Nonetheless, given the proximity of Lots 9 and 10 to the ephemeral stream, construction on these lots during Phase 2 could potentially adversely impact the stream. Impacts for Phase 1 and 2 would be less than significant with mitigation.

Mitigation Measures. The following mitigation is required.

BIO-4 **Re-vegetation Plan.** If impacts to Chesebro Canyon Creek and the ephemeral stream cannot be avoided, the Applicant shall consult with the CDFW, USACE, and the RWQCB and obtain applicable permits for the proposed impacts to jurisdictional waters, or obtain confirmation that permits are not needed. This includes a Clean Water Act Section 404 permit from the USACE for the discharge of fill to any of USACE non-wetland waters of the U. S. onsite, a Section 401 water quality certification or Waste Discharge Requirements from the RWQCB, and a Streambed Alteration Agreement from CDFW. These permits typically require mitigation to reduce impacts to water quality and quantity, vegetation, and wildlife. The project Applicant shall demonstrate to the City of Agoura Hills that the requirements of agencies with jurisdiction over waters onsite can be met prior to obtaining Phase 1 grading permits or building permits, whichever occurs first. This may include, but not be limited to, consultation with those agencies, securing the appropriate permits, waivers or agreements, and arrangements for re-vegetation mitigation as needed.

If mitigation is required, areas of temporary disturbance shall be enhanced (weeds removed) and re-seeded or planted with a palette of native species at a 1:1 ratio for temporary impacts and 2:1 ratio for permanent impacts, or as required by the regulatory agencies having permitting jurisdiction over the resources, as appropriate. Revegetation for Chesebro Canyon Creek shall consist of appropriate willow scrub species and that of the ephemeral stream shall consist of California Coastal Scrub and grassland species, unless otherwise specified by the regulatory agencies.

Re-vegetation shall occur as close to the impact area as possible, and in the same creek/stream to be disturbed, as feasible. If infeasible, another similar location may be acceptable, and shall be as close to the area disturbed as possible, and at least within the local watershed. An in-lieu fee to a conservation organization approved by the City (and acceptable to the regulatory agencies, as appropriate) to conduct the mitigation may be accepted if no other locations are feasible, as confirmed by the City Environmental Analyst. The project Applicant shall submit a re-vegetation plan prepared by a qualified restoration biologist for review and approval by the City Environmental Analyst, prior to issuance of a grading permit or building permit, whichever comes first.The plan shall include, but not be limited to, the following components:

- Location of the mitigation/re-vegetation and map;
- Performance criteria (i.e., what is an acceptable success level of re-vegetation to mitigate impacts);
- Plant species, container sizes, and seeding rates;
- Planting schedule;
- Monitoring effort (i.e., who is to check on the success of the re-vegetation plan, and how frequently);
- Contingency planning (i.e., if the effort fails to reach the performance criteria, what remediation steps need to be taken);
- Irrigation method/schedule (i.e., how much water if needed, where and for how long);
- Means to control exotic vegetation; and
- Identification of the party responsible for meeting the success criteria.

The revegetation shall be completed within one (1) year of completion of the improvements affecting the drainages, acceptable to the City of Agoura Hills. The Applicant shall maintain and monitor the plants for a minimum of five years.

Significance After Mitigation. Mitigation measures BIO-4 would reduce impacts to a less than significant level.

Impact BIO-5 The site is within a mapped migration corridor, but the proposed project (Phase 1 and 2) would not substantially affect local wildlife movement. This is a Class III, *less than significant* impact.

The proposed project would retain as open space much of the site (49 acres) that adjoins offsite open space and the Liberty Canyon Wildlife Corridor, and within the Santa Monica- Sierra Madre Connection. This would preserve a buffer area between developed areas and the Liberty Canyon wildlife corridor. Consistent with Agoura Hills General Plan Policy NR-4.4, proposed development is clustered in an area of about 22 acres situated at the northwest corner of the site, adjacent to the existing single-family home development. Consistent with Policies NR-4.5 and NR-4.12, the project would result protection of 49 acres of the open space, and areas of the property where wildlife movement has the potential to occur (e.g., ridgelines). The majority of the development area is within the mapped Santa Monica- Sierra Madre Connection, at the western most edge. The area where structural development would occur (exclusive of fuel modification) would extend approximately 1,000 feet into the mapped Santa Monica- Sierra Madre Connection, which is approximately 8,000 feet wide in the project vicinity. The 22-acre development area is contiguous with existing urban development to the west, and the remaining 49 acres of the site are proposed to be preserved as open space. The project would provide a substantial open space buffer from the wildlife corridor, therefore impacts to wildlife movement would be considered less than significant given the more suitable movement pathways and habitat patches that occur within the wildlife corridor to the east of the project site. Furthermore, the project would not cause any greater decrease in width of the Wildlife

Corridor than the constraints currently present south of the freeway and those caused by the freeway itself.

Neither phase of the proposed development would impede wildlife movement except for restricting movement within or through the 22-acre development area of the site. The masonry retaining wall that may be required as part of a fuel modification plan under Mitigation Measure BIO-3 (above) may further restrict movement through this area. While build-out of the project would reduce wildlife habitat, it would not fragment existing habitat because development would be limited to areas in the northwestern portion of the site adjacent to existing urban areas. The entire southern section of the project site would not be impacted, and this area would provide sufficient cover and a variety of the habitats found onsite to support movement of species that may potentially pass through the site. Substantial suitable lands for wildlife movement will continue to exist within protected lands of the Santa Monica Mountains, adjacent to the eastern boundary of the project site. North to south movement in the project vicinity is already limited to the Liberty Canyon choke-point previously discussed. A ridge line runs roughly north-south in the eastern portion of the project site outside of the development areas, and provides a natural, topographic boundary at the western edge of the Liberty Canyon wildlife corridor. The project site is not in a critical linkage for wildlife movement such as an area providing access to an open culvert that wildlife could use to safely cross roads between areas of open space, or a narrow bottleneck of space or habitat between two larger areas of open space. The project site does not include any chokepoints, and would not affect the Liberty Canyon overpass choke point since it is located approximately 3,500 feet southeast of the site. On and offsite indirect impacts to wildlife movement resulting from night lighting would be addressed through implementation of BIO-1(c), which imposes lighting restrictions.

The project site is not considered essential for the Santa Monica Mountains-Sierra Madre Mountains Connection regional wildlife corridor. Construction of the project would not remove high value core breeding or foraging habitat since the majority of the site is non-native grassland. The development area is located in a disturbed canyon bottom and is characterized primarily as non-native grassland, affording little cover to wildlife movement. Any wildlife moving through the area will likely use the vegetated slopes or riparian corridor and avoid the sparsely vegetated and exposed canyon bottom where development is proposed. Telemetry data detailing the wildlife movement of carnivores (e.g., bobcat, mountain lion, coyote) shows that movement is predominantly concentrated to the east of the site, as shown in Figure 4.4-5. Substantial suitable habitat for movement will continue to exist within undeveloped lands preserved in perpetuity to the north and east. Impacts to wildlife movement would be less than significant.

Mitigation Measures. No mitigation is proposed or necessary.

Significance After Mitigation. Since no significant effects were identified, no residual significant impacts would occur.

Impact BIO-6 Implementation of Phase 1 of the proposed project would result in minor to moderate disturbance to protected oak trees, while implementation of Phase 2, including fuel modification, may result in disturbance to, or removal of, oak trees. This is a Class II, *less than significant with mitigation incorporated* impact.

An Oak Tree Report was prepared by L. Newman Design Group (July 17, 2014, revised August 18, 2014), and reviewed by the City's Oak Tree Consultant in a memorandum from Kay Greeley (September 23, 2014). Both of these items are found in Appendix C. There are a total of 119 coast live oak (*Quercus agrifolia*) and valley oak (*Quercus lobata*) trees on or adjacent to the project site. Of these, 36 valley oaks and three (3) coast live oaks are within 50 feet of the project site, and 14 of these 39 oak trees are located on the project site itself. Figure 4.2-5 shows the location of the oak trees on the project site.

No oaks would be removed as a result of Phase 1 of the project. However, Phase 1 would result in encroachment into the protected zones of five (5) oak trees (Oak Tree Nos. 28, 29, 30, 31 and 32). These encroachments would be minor to moderate, and as long as work in their vicinity is conducted carefully (per the Oak Tree Report and memorandum from the City's Oak Tree Consultant), the trees would not experience significant impacts.

As the specific location of the proposed homes and any accessory structures that are part of Phase 2 are not yet known, it is possible that oak trees could be impacted by grading and required fuel modification associated with the development of each residential parcel, namely Oak Tree Nos. 1, 2 and 3, which are on or adjacent to the northern edge of Lot 15. Such impacts are expected to be limited, as these trees might be avoided given their location along the border of the lot. The fuel modification within 200 feet of structures is not anticipated to substantially affect oak trees. Nonetheless, any impacts that occur to protected oaks would need to be mitigated for by preparing an Oak Tree Report or similar study for each lot proposed for development that is in the vicinity of a protected oak tree, and by following the recommendations and requirements of the Oak Tree Report or similar study, as well as the requirements of the Planning and Community Development Department, including the City Oak Tree Consultant. Removal of such oak trees would require compensation through replacement oaks pursuant to the City's Oak Tree Ordinance and Oak Tree Preservation and Protection Guidelines in Article IX of the Municipal Code.

Fuel modification activities required as part of Phase 2 are expected to be limited to removal of deadwood in the canopies, and are not anticipated to substantially impact protected oak trees within fuel modification zones. In any case, potential oak impacts from fuel modification related to each residential lot proposed for development in the future would be analyzed as part of a required Oak Tree Report or similar study for that particular residential development. Impacts would be mitigated as noted above, consistent with the City's Oak Tree Preservation and Protection Guidelines in Article IX of the Municipal Code, including Appendix A to Article IX.

A City Oak Tree Permit would be required for Phase 1 of the project, and may be required for individual development of residential lots as part of Phase 2. Impacts to protected oak trees would be less than significant with mitigation.

Mitigation Measures. The following mitigation is required.

BIO-6(a) **Oak Trees – Phase 1.** For Phase 1**,** the project shall comply with all conditions listed in the City Oak Tree Consultant memorandum (September 23, 2014) regarding the oak trees on the property, and with the Oak Tree Preservation Program stipulated in the Oak

Tree Report (Newman, July 2013, rev. August 2014). These items include acceptable work methods near the oak trees, protective fencing, standards for pruning and watering, and proper notification of the City's Oak Tree Consultant etc.

BIO-6(b) **Oak Trees – Phase 2.** As each individual residential lot is proposed for development, the Planning and Community Development Department shall determine if an Oak Tree Permit, Oak Tree Report, or similar study is required based on the location of the specific development in relation to protected oak trees, including fuel modification measures as necessary. An Oak Tree Report or similar study shall be prepared by a qualified oak tree specialist and submitted to the Planning and Community Development Department for review and acceptance. The oak tree protection, preservation and mitigation requirements of such a report/study and any requirements of the Planning and Community Development Department, including the City Oak Tree Consultant, shall be implemented. The loss of any oak trees shall be compensated and mitigated pursuant to the City's Oak Tree Ordinance and Oak Tree Preservation and Protection Guidelines in Article IX of the Municipal Code. Such compensation shall occur prior to issuance of Certificate of Occupancy of the development on the individual residential lot, and, for each oak tree, shall be at a ratio of no fewer than 4:1, with at least two (2) 24-inch box specimens and one (1) 36-inch box specimen, with the remaining tree diameter dependent on the size of the individual tree to be removed. Mitigation shall occur on the same lot as the oak tree to be affected; however, if this is determined by the Planning and Community Development Department to be infeasible, an additional site as close as possible to the area of oak removal may be acceptable. If onsite or offsite planting locations are found infeasible, the Applicant may provide an in-lieu fee mitigation to the City's Oak Tree Mitigation Fund. A determination of infeasibility shall be made by the Director of Planning and Community Development.

Significance after Mitigation. Implementation of the mitigation measures above would reduce the project impacts to oak trees to a level considered less than significant.

c. Cumulative Impacts. Significance of cumulative impacts to biological resources is based upon:

- The cumulative contribution of other approved and proposed development to fragmentation of open space in the project site's vicinity;
- The loss of sensitive habitats and species;
- Contribution of the proposed project to urban expansion into natural areas; and
- Isolation of open space within the proposed project by future projects in the vicinity.

Cumulative development in the Agoura Hills area has permanently eliminated extensive tracts of native plant communities, most particularly California coastal scrub, oak savanna and woodlands and riparian areas. Native habitats support native wildlife species, many of which cannot survive in, or do not adapt to, the noise and disturbance associated with urban development. Species that do tolerate developed, landscaped, and disturbed sites often include aggressive, non-native species that further displace native plants and wildlife, or may prey upon native species.

The proposed project lies on the eastern rim of the developed portion of the City, and is backed by substantial open space to the north in the Simi Hills and to the east and south in the Santa Monica Mountains that is preserved in perpetuity. The proposed project would result in the loss of open space and plant and wildlife habitat and an increase in urbanization at the edge of a large natural area, which would be cumulatively considerable given past, present, and reasonably foreseeable projects in the region. No loss of individual oak trees is expected because of the proposed project development. Impacts to an estimated 900 square feet (0.02 acre) of Chesebro Canyon Creek and an onsite ephemeral drainage are expected to be subject to the jurisdiction of all three regulatory agencies (USACE, RWQCB, and CDFW). The scale of this impact is considered to be cumulatively insignificant, given the limited area of proposed drainage infrastructure development. Impacts from project construction to sensitive wildlife species and nesting birds would not be cumulatively substantial with adherence to mitigation set forth under Impact BIO-1. The anticipated cumulative development would not significantly fragment open space, or cause a cumulatively considerable impact to wildlife movement, because the project development is adjacent to current development and is relatively limited in size.

Edge Effects. Phase 2 of the project would concentrate the single-family residential lots in the smaller, flatter portion of the overall site (22 acres), leaving the remaining southern and eastern portions of the site (49 acres), including hillside areas, at the edge of the City as permanent open space. The subdivision, while not infill development, is proposed directly adjacent to existing residential use of a similar, or slightly greater, density, so that the project can easily be served by existing infrastructure, minimizing intrusion into the open space area. Walking and equestrian trails would be created within the project to connect with existing facilities adjacent to the site. The proposed project would result in an increase in urbanization at the edge of a large natural area, which is cumulatively considerable.

Rodenticides. Anticoagulant rodenticides to control rodent populations may be used by residential homeowners, and use of such poisons could have substantial negative impacts on wildlife, in particular secondary poisoning of carnivores. Given that the project is located within the Santa Monica-Sierra Madre Connection, impacts to wildlife from residential use of these poisons may be considerable. However, the proposed project site borders an existing residential housing development to the west, with the furthest eastern extent of the project less than 0.25 mile from the existing residences. Therefore, wildlife are already exposed to potential rodenticides (and secondary poisoning of carnivores) impacts, and the project in itself would not be considerably cumulative in relationship to existing uses.

All cumulative development within the City would be subject to the regulations of the City, the State of California, and the federal government. Compliance with these regulations on all new

development proposals would be expected to reduce impacts from individual projects to a less than significant level for impacts to coastal sage scrub, grassland and individual oak trees, wetlands, and most special status species potentially in the project area, though it should be recognized that the gradual urbanization of the region would substantially alter biological conditions. With the proposed mitigation measures identified herein, build out of the proposed project would not be cumulatively considerable with respect to the above biological resources.

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4.3 GEOLOGY and SOILS

This section analyzes potential impacts related to geologic and soil hazards. The analysis is predominantly based on the "Geotechnical Site Evaluation, Proposed Agoura Equestrian Estates, East of Chesebro Road and North of US 101, Agoura Hills, California" (Geotechnical Site Evaluation) conducted by Gorian & Associates, Inc. in July 2013, the responses to City comments from Gorian dated November 12, 2013 and December 23, 2013, and the City Geotechnical Review Sheet prepared by Geodynamics, Inc. dated January 29, 2014, all of which are provided in Appendix E and incorporated herein by reference. The Geotechnical Site Evaluation included review of regional geologic maps, geological reconnaissance mapping, subsurface exploration (i.e., drilling and sampling of bucket auger borings and trenches), laboratory testing, and engineering analysis.

4.3.1 Setting

a. Site Geology. The project site is located in a relatively level alluvial valley on the eastern side of Palo Comado Canyon on the eastern edge of the City of Agoura Hills. Existing slope gradients range from nearly level in the alluvial valley floor to locally as steep as 2(h):1(v) on the surrounding hillsides. Total relief of the property is roughly 230 feet.

The project site is bordered by the US 101 freeway to the south. Open space and vacant land abuts the site to the east and north, single family residences and a gas station are located to the west and south. The Santa Monica Mountains are located north and east of the site, which are a relatively young, rugged coastal range that defines the southern margin of the Transverse Ranges, an east-west trending geological province that also encompasses the major Santa Ynez, San Gabriel, and San Bernardino mountain ranges. The Santa Monica Mountains extend for 47 miles between Pt. Mugu in Ventura County to Griffith Park in Los Angeles County and the range averages seven miles in width north to south. The Santa Monica Mountains at the project site location are generally underlain by the Miocene Calabasas Formation and the Miocene Modelo Formation.

Geologic Units. Two Miocene-age sedimentary bedrock formations underlie the property. These units have been referred to as the middle Miocene Calabasas Formation and middle to upper Miocene Modelo Formation. Surficial deposits on-site include topsoil/colluvial soils, Quaternary to Recent age alluvial deposits and landslide debris. These units are described below with further detail provided in the Geotechnical Site Evaluation (Appendix E).

Calabasas Formation. Representing the oldest rock unit exposed on-site, the Calabasas Formation underlies the southern half of the property. The on-site Calabasas Formation consists of claystone and clayey siltstone interbedded with silty fine-grained sandstone. Colors vary from light olive brown, dark brown, yellowish brown and gray for the silt/claystones and yellowish-brown, olive to brownish yellow and light gray for the sandstone. The bedrock unit is generally thinly bedded, weathered, and fractured (ellipsoidal fractures) with scattered calcium carbonate filled fractures and iron staining. Structurally, the Calabasas bedrock is inclined to the north-northeast at moderate to steep angles (28 to 78 degrees).

Modelo Formation. Overlying the Calabasas Formation, the Modelo Formation underlies the hillside terrain of the northeastern portion of the site. Similar to the Calabasas Formation on site, natural exposures are few due to residual soil development. The Modelo Formation consists of interbedded clayey siltstone, claystone, and fine-grained sandstone. Diatomaceous siltstone commonly found with fossil fish scales and occasional interbeds of siliceous fissile shale were also encountered in outcrop and in the exploratory borings. Colors vary from light yellowish to olive brown and gray to dark gray for the silt/claystone and pale yellow to light gray for the sandstone. Generally thinly bedded to fissile, the Modelo Formation is slightly weathered and fractured. Fractures often have gypsum infillings and iron oxide staining. Structurally, the bedding is inclined to the north at moderate to steep angles (25 to 53 degrees).

Alluvium. Alluvial soils were encountered in the main valley area of the property. The alluvium generally consists of very dark grayish brown to light olive brown to yellowish brown silty clay with various amounts of sand in a very stiff to hard and moist condition. Scattered cobbles and gravel composed of siltstone were noted as were scattered carbonate veinlets. Based on laboratory data, the alluvium is not subject to significant consolidation and when wetted under load, expansion occurs rather than hydrocollapse.

Residual Soil. Residual soil typically mantles the bedrock and alluvial soils on the site and generally consists of light olive brown slightly sandy clay to clayey sand in a hard and moist condition. The thickness of this material varies from one to four and one half (1 to 4.5) feet.

Artificial Fill. Man made fills exist supporting Palo Comado Canyon Drive/Driver Road and locally are associated with existing dirt roads on site. While not encountered in the exploratory borings, the fills are anticipated to be composed of soils locally derived from bedrock and alluvium.

Soils. According to the Soil Conservation Service Classification System, the preponderant soil found throughout the project site is classified as "Linne-Los Osos-Haploxerepts association, 30 to 75 percent slopes." According to the United States Department of Agriculture (USDA) Soil Survey of the Santa Monica Mountains National Recreation Area, both the Linne and Los Osos series consists of soils that are 20 to 40 inches in depth to paralithic bedrock and are well drained. These soils are formed in residuum weathered from shale.

b. Landslides. The Geotechnical Site Evaluation (2013) identified a rotational landslide in the eastern portion of the project site. The landslide was interpreted to be a relatively shallow failure, 10-15 feet thick, with the failure surface encountered at 11 feet below the ground surface and is comprised of gray plastic clay inclined at five (5) degrees to the southwest. Truncated beds were observed just above the slide plane with scattered fractures filled with gypsum. The site survey and subsurface sampling identified no other landslides on site. Additionally, the site is not located on the state landslide hazard map (Department of Conservation, 1998).

c. Faulting and Seismicity. Faults generally produce damage in two ways: groundshaking and surface rupture. Seismically induced groundshaking covers a wide area and is greatly influenced by the distance of the site to the seismic source, soil conditions, and depth to groundwater. Surface rupture is limited to very near the fault. Other hazards associated with seismically induced groundshaking include ground acceleration, liquefaction,

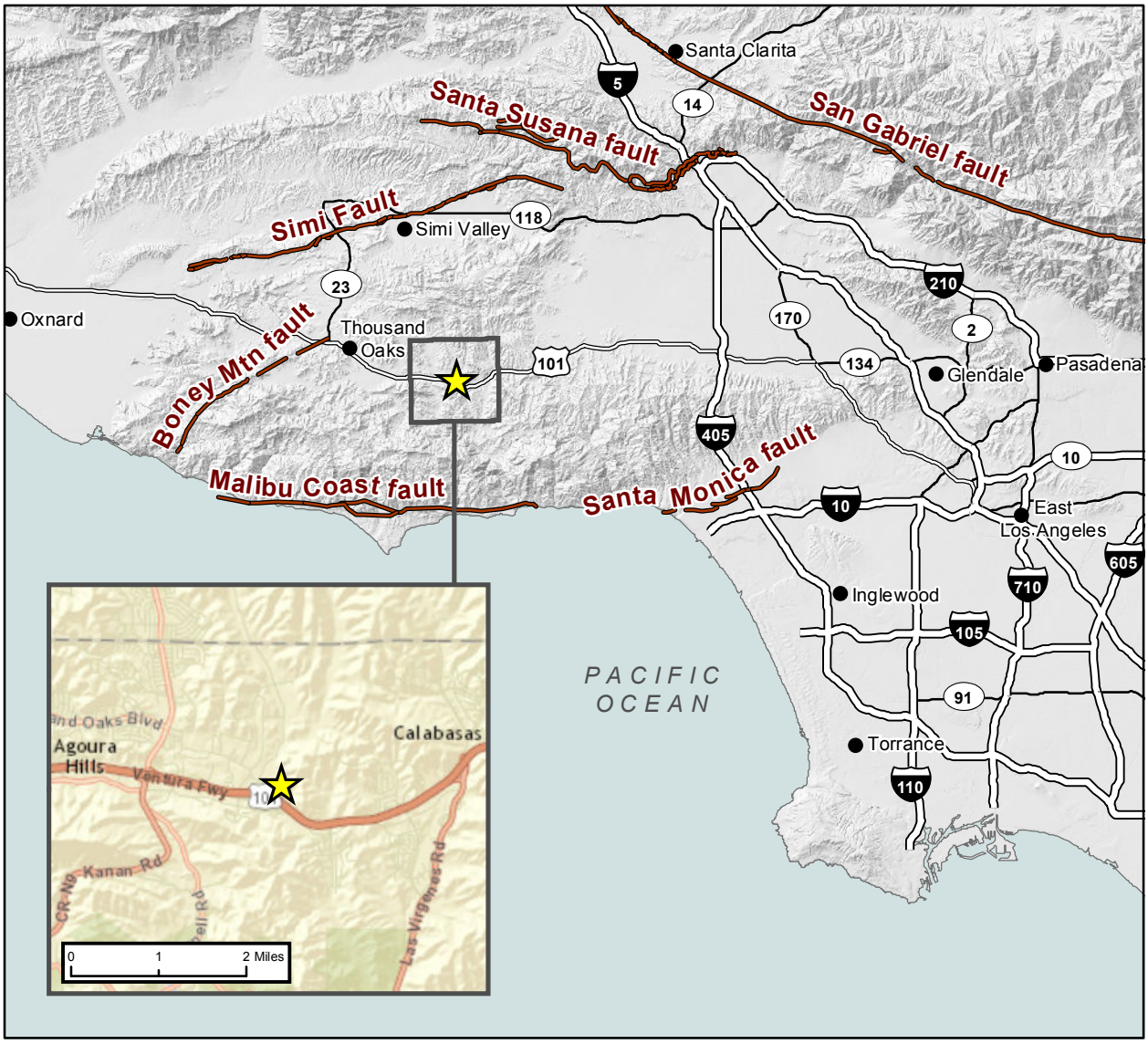
lateral spreading, lurching, and earthquake-triggered landslides, tsunamis, and seiches. Tsunamis and seiches are associated with ocean surges and inland water bodies, respectively and thus neither of these hazards would affect the project area. The closest inland water body is the artificial Lake Lindero, about three (3) miles west of the project site. The Pacific Ocean is located about 15 miles south of the project site.

To help mitigate the potential hazards associated with surface faulting on occupied structures, the Alquist-Priolo Special Studies Zone Act was passed into law in 1972. Now known as the Alquist Priolo Earthquake Fault Zone Act (APEHA), it requires studies within 500 feet of active or potentially active faults. The APEHA designates "active" and "potentially active" faults utilizing the same age criteria used by the California Geologic Survey. The established policy is to zone active faults and only those potentially active faults that have a relatively high potential for ground rupture. Ground rupture caused by movement along a fault could likely result in catastrophic structural damage to buildings constructed along the fault trace. Consequently, the State of California via the APEHA prohibits the construction of occupied "habitable" structures within the designated fault zone. Projects involving the construction of habitable structures must demonstrate that the structure does not encroach on a 50-foot setback from the fault trace. Per the Alquist-Priolo legislation, no structure for human occupancy is permitted on the trace of an active fault.

Agoura Hills and the surrounding area are in a seismically active region prone to occasional damaging earthquakes. The destructive power of earthquakes can be grouped into fault-rupture, ground shaking strong motion), and secondary effects of ground shaking, such as tsunami, liquefaction, settlement, landslides, etc. The hazard of fault-rupture is generally thought to be associated with a relatively narrow zone along well defined pre-existing active or potentially active faults. However, there are exceptions to this because it is not possible to predict the precise location of a new fault where none existed before (Department of Conservation, 2007).

Active faults in the vicinity of Agoura Hills include the Santa Susana, Malibu Coast, San Gabriel, and San Andreas Faults (see Figure 4.3-1, Earthquake Fault Map). The Malibu Coast Fault is the nearest active fault located approximately 7.1 miles south of the project site, and most influences seismic conditions on the project site.

Ground Shaking and Surface Rupture. In general terms, an earthquake is caused when strain energy in rocks is suddenly released by movement along a plane of weakness. Seismically induced ground shaking covers a wide area and is greatly influenced by the distance of the site to the seismic source, soil conditions, and depth to groundwater. In some cases, fault movement propagates upward through subsurface materials and causes displacement at the ground surface as a result of differential movement. Surface rupture is limited to very near the fault. Surface rupture usually occurs along traces of known or potentially active faults, although many historic events have occurred on faults not previously known to be active. Seismicity in Southern California is a result of the dominantly reverse-slip regime of the region. It should be understood that the exact prediction of future fault rupture is impossible.



Data layers provided by ESRI and its licensors © 2014. Fault layer source: Bryant, W.A. (compiler), 2005, Digital Database of Quaternary and Younger Faults from the Fault Activity Map of California, version 2.0: California Geological Survey Web Page, <http://www.consrv.ca.gov/CGS/information/publications/QuaternaryFaults_ver2.htm>; (1/31/07).

Project Location

Fault Lines

0 5 10 Miles

N

Earthquake Fault Map

Figure 4.3-1

The energy released during an earthquake propagates from its rupture surface in the form of seismic waves. The resulting strong ground motion from the seismic wave propagation can cause significant damage to structures. At any location, the intensity of the ground motion is a function of the distance to the fault rupture, the local soil/bedrock conditions, and the earthquake magnitude. Intensity is usually greater in areas underlain by unconsolidated material than in areas underlain by more competent rock.

Earthquakes are characterized by moment magnitude, which is a quantitative measure of the strength of the earthquake based on strain energy released during the event. The magnitude is dependent on several factors, including the type of fault, rock-type, and stored energy. Moderate to severe ground shaking will be experienced in the project area if a large magnitude earthquake occurs on one of the faults discussed above.

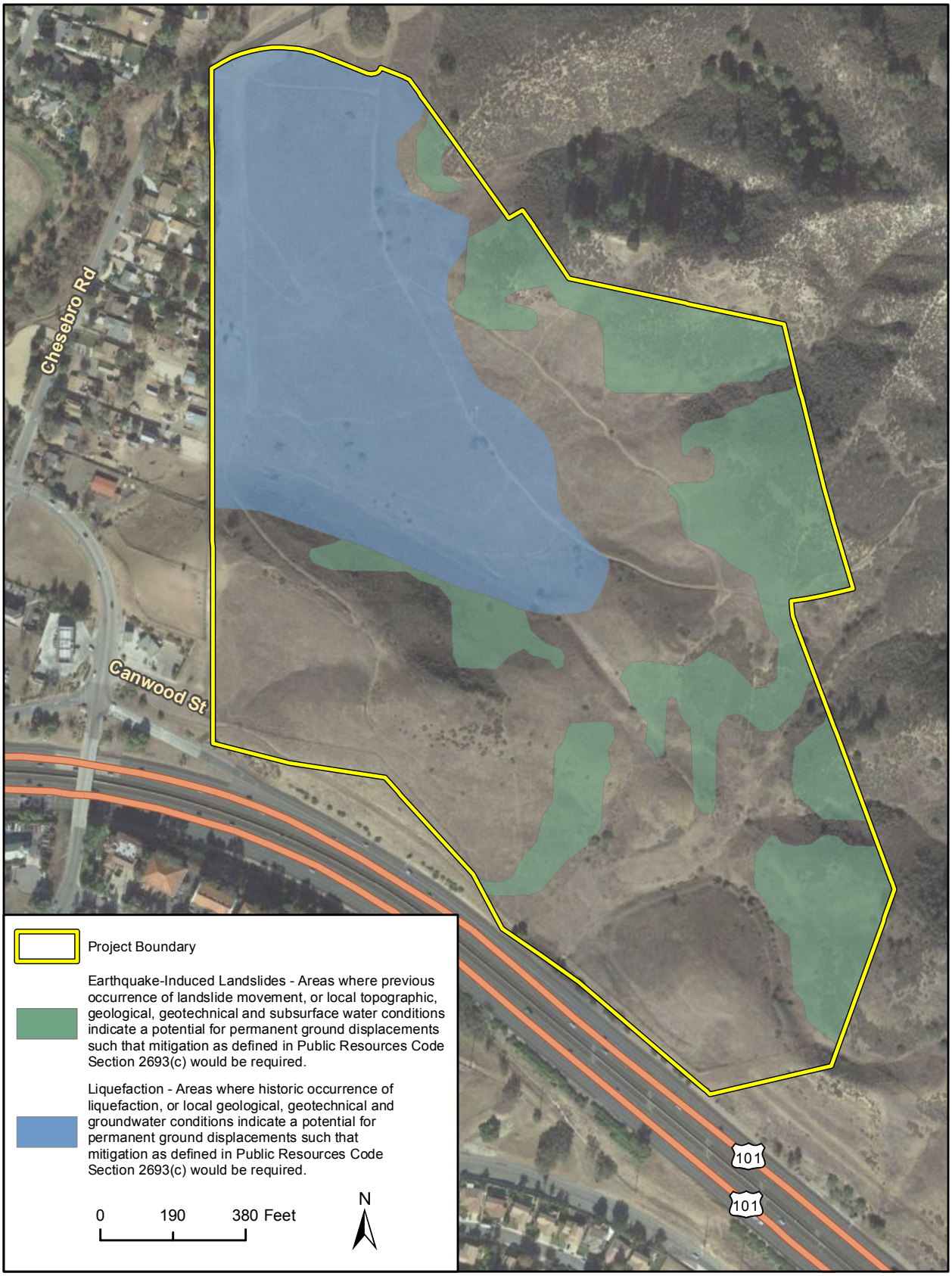
The number or frequency of large magnitude earthquakes that may occur during the life of the proposed project cannot be predicted reliably. However, according to the California Geological Survey's Probabilistic Seismic Hazards Mapping Ground Motion program (California Dept. of Conservation, April 2011), the ground in the project area has a 10 percent probability of exceeding a horizontal peak ground acceleration rate of 0.641 g (g is the acceleration of gravity) in 50 years.

The potential hazards or adverse effects of groundshaking would depend on several factors, including: the severity of ground shaking; the nature, depth, and extent of the seismic event; the type of structures involved; and local topography.

Liquefaction. Soil liquefaction results from the temporary buildup of excess pore pressures, which can result in a condition of near zero effective stress and temporary loss of strength. Several factors influence a soil's potential for liquefaction during an earthquake. These factors include: magnitude and proximity of the earthquake; duration of shaking; soil types; grain size distribution; clay fraction content; density; angularity; effective overburden; location of groundwater table; cyclic loading; and soil stress history. Liquefaction is more likely in poorly-graded, saturated, low-density sands. With increasing overburden, density and increasing clay-content, the likelihood of liquefaction decreases. According to the State of California Seismic Hazard Zones Map, the alluvial and loose soils on-site may be prone to liquefaction in a strong to severe event (1998). Figure 4.3-2 illustrates the areas in and around the project site that may be prone to liquefaction.

Lateral Spreading. Lateral spreading is the horizontal movement of loose, unconfined sedimentary and fill deposits during seismic activity. The potential for lateral spreading is highest in areas underlain by soft, saturated materials, especially where bordered by steep banks or adjacent hard ground. The existing on-site alluvium may be situated at a sufficient slope so that in a strong to severe event it may be prone to lateral spreading.

Lurching. Ground-lurching is the horizontal movement of soil, sediments, or fill located on relatively steep embankments or scarps as a result of seismic activity, forming irregular ground surface cracks. Like lateral spreading, the potential for lurching is highest in areas underlain by soft, saturated materials, especially where bordered by steep banks or adjacent hard ground.



Imagery provided by Google and its licensors © 2014. Additional data layers from California Geological Survey, Seismic Hazard Mapping Program, downloaded from http://gmw.consrv.ca.gov/shmp/MapProcessor.asp?Action=Download&Location=SoCal on August 7, 2014.

Landslide and Liquefaction Areas Figure 4.3-2

Earthquake Triggered Landsliding. This category of landslides develops as a result of the increased loading from seismic energy. Landslides are downslope motions of conglomerations of earth materials or bedrock or combinations of both. Landslides are a more defined unit and are similar to slumps, but are on a larger scale. They can move in a translational movement or rotational settlement or motion. It occurs because of the loss of the ability of earth materials to maintain their integrity at a specific gradient and settle. All on-site areas consisting of natural/existing slopes may be prone to future instability in a strong to severe event.

d. Regulatory Setting. The City of Agoura Hills General Plan Safety Element includes requirements to reduce the impacts of geologic and seismic hazards on residents and structures within the City.

4.3.2 Impact Analysis

a. Methodology and Thresholds of Significance. The analysis of potential geology-related impacts is based on a review of available literature on regional geology including the Geotechnical Site Evaluation prepared by Gorian & Associates, July 2013, the responses to City comments from Gorian dated November 12, 2013 and December 23, 2013, and the City Geotechnical Review Sheet prepared by Geodynamics, Inc. dated January 29, 2014. Considering *Appendix G* of the CEQA Guidelines, impacts relating to geology are considered significant if the project would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area (Refer to Division of Mines and Geology Special Publication 42) or based on other substantial evidence of a known active or potentially active fault;
  - Strong seismic ground shaking,
  - Seismic-related ground failure, including liquefaction; and or
  - Landslides;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse; and/or
- Be located on expansive soil, as defined in Table 18-1-B of the California Building Code creating substantial risks to life or property.

The following topics were determined to be less than significant or have no impact. These are discussed in the Initial Study prepared for this project (see Appendix A).

- Result in substantial soil erosion or the loss of topsoil;
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

b. Project Impacts and Mitigation Measures.

Impact GEO-1 Seismically induced ground shaking could destroy or damage structures in both phases of the project, resulting in loss of property or risk to human safety. This impact is Class II, *less than significant with mitigation*.

The project site is located within the seismically active area of Southern California but outside a Fault Hazard Zone defined by the Alquist-Priolo Earthquake Hazards Act (APEHA) of 1972 revised in 1994. Because the site is within a seismically active region, it is prone to occasional damaging earthquakes. As a result, the site is expected to experience moderate to severe ground shaking from both near and distant earthquake sources during the life of the proposed structures.

Phase 1 does not include the construction of permanent above ground structures and therefore would not pose a significant threat during an earthquake from loss of property or risk to human safety. Nonetheless, potential impacts could result from construction of debris basins, which could be potentially significant.

Since the project site would be subject to strong ground shaking that could cause property damage and/or loss of life after construction of the single family residences, impacts from Phase 2 related to seismic ground shaking would be potentially significant. Future construction of the residential buildings of Phase 2 would be required to be in conformance with the California Building Code (CBC), which is intended to prevent the catastrophic collapse of structures during a seismic event. However, impacts from Phase 2 construction of residences would still be considered potentially significant and additional measures outlined in the Gorian & Associates report (July 2013) would apply.

Mitigation Measures. The following measures are required to reduce seismic ground shaking impacts in Phase 1 and Phase 2 to a less than significant level.

GEO-1 (a) **Geotechnical Site Evaluation Requirements/Recommendations.** The project design and construction shall incorporate and implement all of the requirements/recommendations, as applicable, in the Gorian & Associates Geotechnical Site Evaluation dated July 24, 2013, as well as in the responses to City comments from Gorian dated November 12, 2013 and December 23, 2013, and the City Geotechnical Review Sheet prepared by Geodynamics, Inc. dated January 29, 2014. Compliance with the requirements/recommendations shall be demonstrated and incorporated into the plans prior to issuance of a grading permit or building permit, whichever occurs first.

GEO -1(b) **Additional Geotechnical Review.** Final development plans for Phase 1, shall be reviewed and approved by a geotechnical professional and the City Building Department and Planning and City Community Development Department prior to issuance of a grading permit or building permit, whichever comes first.

For Phase 2, an individual grading plan and geotechnical analysis shall be prepared as part of the application for each residence proposed in the future, and shall be subject to the review and approval of the City. All recommendations and requirements of the geotechnical analysis, and those of the City, shall be followed. All recommendations/ requirements of the geotechnical analysis, and those of the City, shall be followed. Compliance with the requirements/recommendations shall be demonstrated and incorporated into the plans prior to issuance of a grading permit or building permit, whichever occurs first.

Significance After Mitigation. Implementation of the above measures would reduce impacts related to seismic induced ground shaking to a less than significant level.

Impact GEO-2 The area of proposed development in either phase of the project is not susceptible to fault rupture, and so would not expose people or structures to risk of loss or harm due to fault rupture. This is a *Class III, less than significant impact*.

Fault rupture occurs most frequently along well defined pre-existing active or potentially active faults. No active or potentially active faults are known to cross the site and the site is not currently within an Alquist-Priolo Earthquake Zone. Therefore, the potential impacts associated with fault rupture would be less than significant.

Mitigation Measures. No mitigation would be required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Impact GEO-3 The area of proposed development in either phase of the project is not susceptible to liquefaction, and so would not expose people or structures to risk of loss or harm due to liquefaction. This is a *Class III, less than significant impact*.

According to the California Department of Conservation, the project site is located in an area with historical occurrence of liquefaction (1998). The Gorian & Associates (July 2013) report explains that the area of proposed development is underlain by either bedrock at the surface or at a shall depth within the alluvial valley, and that soil borings taken onsite revealed that groundwater is not occurring within the alluvial soils above the bedrock and the alluvium is mostly well consolidated clay. Therefore, the report concludes that the area of proposed development is not susceptible to liquefaction. Impacts would be less than significant for Phases 1 and 2.

Mitigation Measures. No mitigation would be required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Impact GEO-4 The slope stability analysis prepared for the project site concluded that remedial grading is necessary to stabilize an existing landslide and prepare the site for the proposed development. Therefore, landslide impacts would be Class II, ***less than significant with mitigation.***

The project site is located within a valley floor surrounded by hillside. Conventional cut and fill grading would be used to construct building pads and access drives within this area during Phase 2. The building pads would be raised above the valley floor and no major cut slopes are planned into the hillsides. However, a stability analysis of the natural hillside area, provided in the Geotechnical Site Evaluation (Gorian & Associates, 2013) in Appendix E, found potential landslide areas near Lots 7, 8, 9, and 10. The Geotechnical Site Evaluation (and the responses to City comments from Gorian & Associates dated November 12, 2013 and December 23, 2013) provides recommendations for development of these areas to address landslide potential. No slope stability or landslide concerns would result from implementation of Phase 1, given that no structures are proposed in areas of potential landslide. Impacts to slope stability and landslides would be potentially significant for Phase 2, and less than significant for Phase 1.

Mitigation Measures. Mitigation Measures GEO-1(a) and GEO-1(b) listed above are required for slope stability and landslide impacts during Phase 2 activities. No mitigation measures are required for Phase 1.

Significance After Mitigation. Implementation of the above measures would reduce impacts related to slope stability and landslides to a less than significant level.

Impact GEO-5 The upper soil zone overlying the entire site is highly weathered and desiccated to a depth of approximately three (3) feet. Impacts related to the differential settlement of soils would be Class II, ***less than significant with mitigation.***

The upper soil zone overlying the entire project site is highly weathered and desiccated to a depth of approximately three (3) feet. There is the potential for differential settlement due to variability in supporting soils conditions. Differential settlement of soils could impact single family residences constructed as part of Phase 2 over these soils. Phase 1 structures, such as the debris detention basins, could be impacted; however, impacts from the settlement of soils would not severely damage the structures. This is due to the fact that these would be at and below ground level basins and not above ground structures. Impacts would be potentially significant for Phase 2 and less than significant for Phase 1.

Mitigation Measures. Mitigation Measures GEO-1(a) and GEO-1(b) listed above are required for impacts related to soil settlement during Phase 2 activities. No mitigation measures are required for Phase 1.

Significance After Mitigation. Implementation of the above measures would reduce impacts related to soil settlement to a less than significant level.

Impact GEO-6 The proposed project would utilize fill material classified as moderately expansive. Impacts related to expansive soils during Phases 1 and 2 activities would be Class II, *less than significant with mitigation*.

Expansive soils contain clay particles that change in volume (shrink or swell) due to a change in the soil moisture content. The amount of volume change depends upon the soil swell potential, availability of water, and soil restraining pressure. Swelling occurs when clay soils become wet due to excessive water. Excessive water can be caused by poor surface drainage, over-irrigation of lawns and planters, and sprinkler or plumbing leaks.

Gorian & Associates (July, 2013, Appendix E) performed expansion texts on two samples soil representative of the materials that would be placed for future compacted fill. Based on these test results, the soils at the site are considered moderately expansive. Therefore, the potential for property damage under Phase 2 of the project, relating to soil expansion would be a potentially significant impact. Potentially significant impacts could result from Phase 1 construction of debris detention basins. To ensure the debris detention basins would not adversely be affect by the expansive soils, additional testing and study is needed.

Mitigation Measures. Mitigation Measures GEO-1(a) and GEO-1(b) listed above are required for impacts related to expansive soils during Phase 1 and 2 activities. Mitigation Measure GEO-6 is also required for Phase 1.

GEO-6 **Infiltration Study.** A professional geotechnical consultant shall prepare an analysis of the impact of the debris detention basin system proposed in Phase 1 on the proposed development, and perform an infiltration study per the current Los Angeles County guidelines and requirements. All recommendations/requirements of the analysis and study, and those of the County and City, shall be followed. Compliance with the requirements/ recommendations shall be demonstrated and incorporated into the plans prior to issuance of a grading permit or building permit for Phase 1, whichever occurs first.

Significance After Mitigation. Implementation of the above mitigation measures would reduce Phases 1 and 2 impacts related to soil expansion to a less than significant level.

c. Cumulative Impacts. The proposed project in combination with other planned and pending development in the area would cumulatively increase the potential for the exposure of people and property to seismic and other geologic hazards that exist throughout the Southern California region. The proposed project would incrementally contribute to these cumulative impacts. However, geologic hazards are site-specific and individual developments would not create additive impacts that would affect geologic conditions on other sites. Moreover, development projects would be subject to City review on a case-by-case basis, and subject to applicable CEQA review. The City of Agoura Hills will continue to require that all new structures comply with the latest CBC seismic design standards. Therefore, cumulative impacts would be less than significant.

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4.4 HAZARDS/HAZARDOUS MATERIALS

This section discusses potential impacts relating to soil and groundwater contamination. The analysis is based upon the findings of a Phase II Environmental Site Assessment (ESA) for the proposed project prepared by Rincon Consultants, Inc. (incorporated herein by reference and included as Appendix F), as well as on searches of state databases for sites with hazardous materials.

4.4.1 Setting

The project site consists of approximately 71 acres, comprising Assessor Parcel Numbers (APN) 2052-009-270 (71.14 acres) and APN 2055-010-270 (0.25 acre). The site is located in a hilly area on the eastern side of the City of Agoura Hills, north of the US 101 freeway. The site is vacant and is characterized by natural vegetation such as low grasses and trees including oak trees. There is an existing multi-use trail along the western boundary of the site.

a. Environmental Records Search. The following databases were searched in June 2014 for known hazardous materials contamination at the project site:

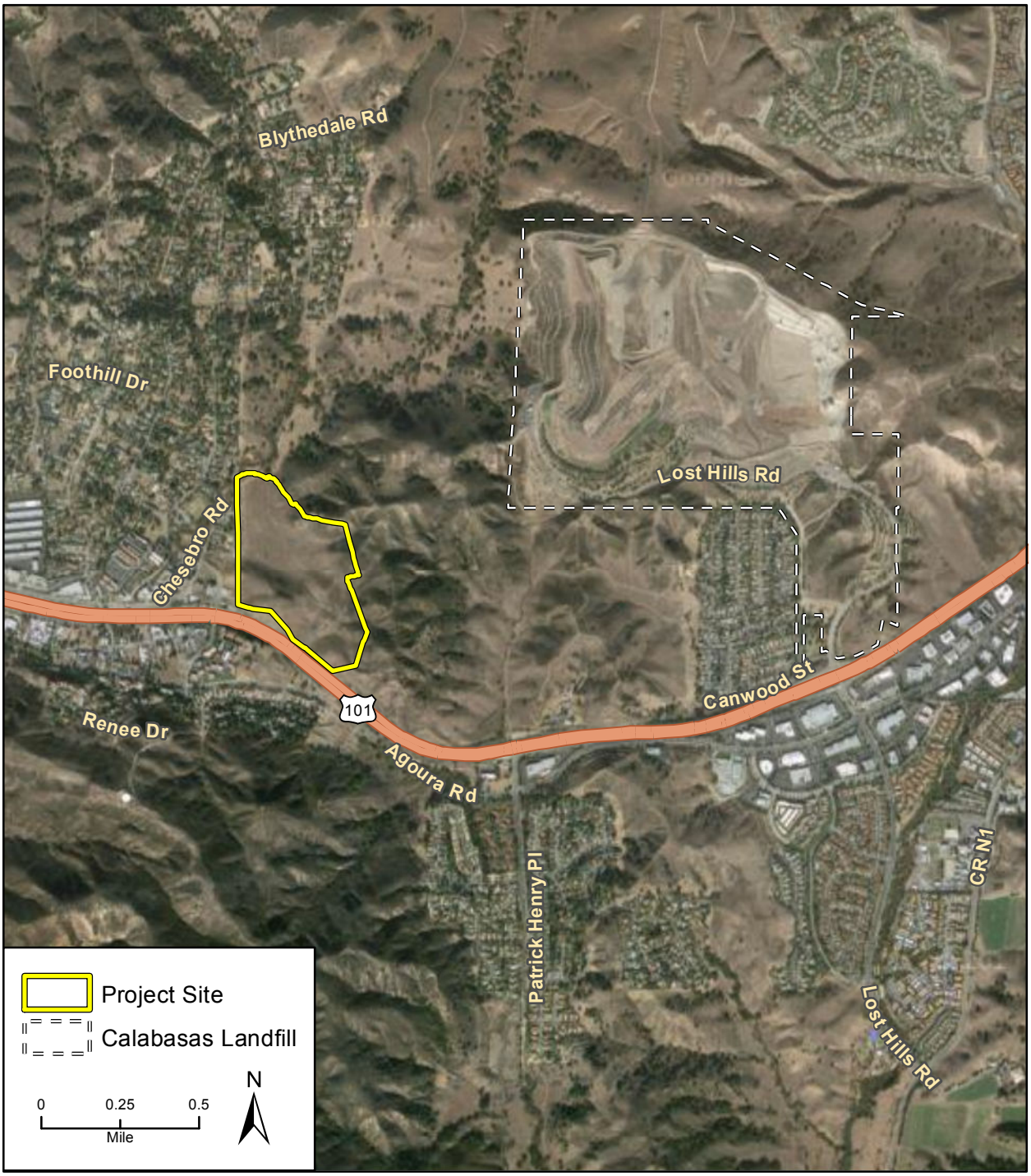
- The State Water Resources Control Board (SWRCB) GeoTracker database
- The Department of Toxic Substances Control EnviroStor database

Listed Environmental Sites Located on the Project Site. The project site is not listed on any of the regulatory databases reviewed.

Offsite Properties. Offsite properties listed on Geotracker and Envirostor fall under two general categories of databases: those reporting unauthorized releases of hazardous substances (e.g., leaking underground storage tank (LUST), National Priority List [a.k.a. Superfund sites], and corrective action facilities), and databases of businesses permitted to use hazardous materials or generate hazardous wastes, for which an unauthorized release has not been reported to a regulatory agency.

Listed Environmental Sites within One-Half Mile of the Project Site. Four sites are listed within one-half mile of the project site with LUSTs that have been remediated and have case-closed status with the State Water Resources Control Board (SWRCB). One LUST site, located at 5116 North Chesebro Road (Agoura Shell), is an active LUST cleanup site located approximately 0.25 miles southwest of the project site. The contaminant of concern is gasoline and the potential media affected is unknown. No other information was available on the Geotracker website. The status of this cleanup site is "Open."

Listed Environmental Sites within One Mile of the Project Site. One site, the Calabasas Landfill, is listed within approximately 0.75 miles of the project site. The Calabasas Landfill is located at 5300 Lost Hills Road and consists of 505 acres (see Figure 4.4-1). The facility operated as a Class II waste landfill from 1961 to 1965, a hazardous waste (Class I) landfill from 1965 to 1980, and has been in operation as a Class III non-hazardous municipal solid waste facility from 1980 to present day.



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Calabasas Landfill Location

Figure 4.4-1

The following environmental controls have been implemented at the landfill:

- Six subsurface barriers have been installed as environmental controls for groundwater. The barriers consist of a cement-bentonite mix that extends into the bedrock and acts as a dam to contain water, and extraction wells are in place to remove water behind the wall.
- Downgradient groundwater monitoring wells are installed to monitor the effectiveness of the subsurface barriers.
- A landfill gas collection system consisting of vertical and horizontal wells placed throughout the existing landfill cells uses collected gas to produce electricity or combusts the gas in flares.
- Landfill gas migration monitoring probes are located along the boundary of the landfill and are monitored once a month.
- Dust emissions are continuously controlled by water trucks. The landfill operates in compliance with a dust emissions control plan regulated and approved by the South Coast Air Quality Management District (SCAQMD).

On July 21, 2009, the Los Angeles Regional Water Quality Control Board (LA RWQCB) issued Waste Discharge Requirements (WDR) for waste disposal including an assessment monitoring program and Corrective Action Program (CAP) for the Calabasas Landfill. The purpose of the WDR is to ensure that the landfill remains in compliance with applicable regulations and waste discharge restrictions set forth in the Regional Board Order No. R4-2009-0088 that was adopted on July 16, 2009. Additionally, the landfill has a CAP in place to minimize the risk and prevention of potential future releases from the landfill.

The LARWQCB requires that the Calabasas Landfill follow the self-monitoring program outlined in the Monitoring and Reporting Program No. CI-4992. This program requires the Calabasas Landfill to perform groundwater monitoring on a semi-annual basis and includes groundwater monitoring wells that are downgradient of the landfill.

In 2002, the State Water Resources Control Board (SWRCB) issued a request for the LARWQCB to collect analytical results for radioactive waste constituents in water samples from California landfills, including Calabasas Landfill. At the Calabasas Landfill groundwater samples were collected in groundwater wells located upgradient and downgradient of the landfill, and from samples taken within the leachate drainage collection system and analyzed for specific conductance, gross alpha/beta particle activity, tritium, isotopic uranium, radium-226, radium-228, and strontium-90, potassium, potassium-40, and cesium-137. The levels of uranium and alpha particles detected in the downgradient groundwater wells (wells closest to the project site) were below the levels detected in the upgradient wells sampled. The LARWQCB concluded that "while uranium and alpha particle activity concentrations in volatile organic compound (VOC)-affected (downgradient) monitoring wells exceeded their respective Maximum Contaminant Levels (MCLs) for drinking water, these levels likely reflect natural sources rather than a release from the landfill, since unaffected (upgradient) monitoring well results also exceeded MCLs."

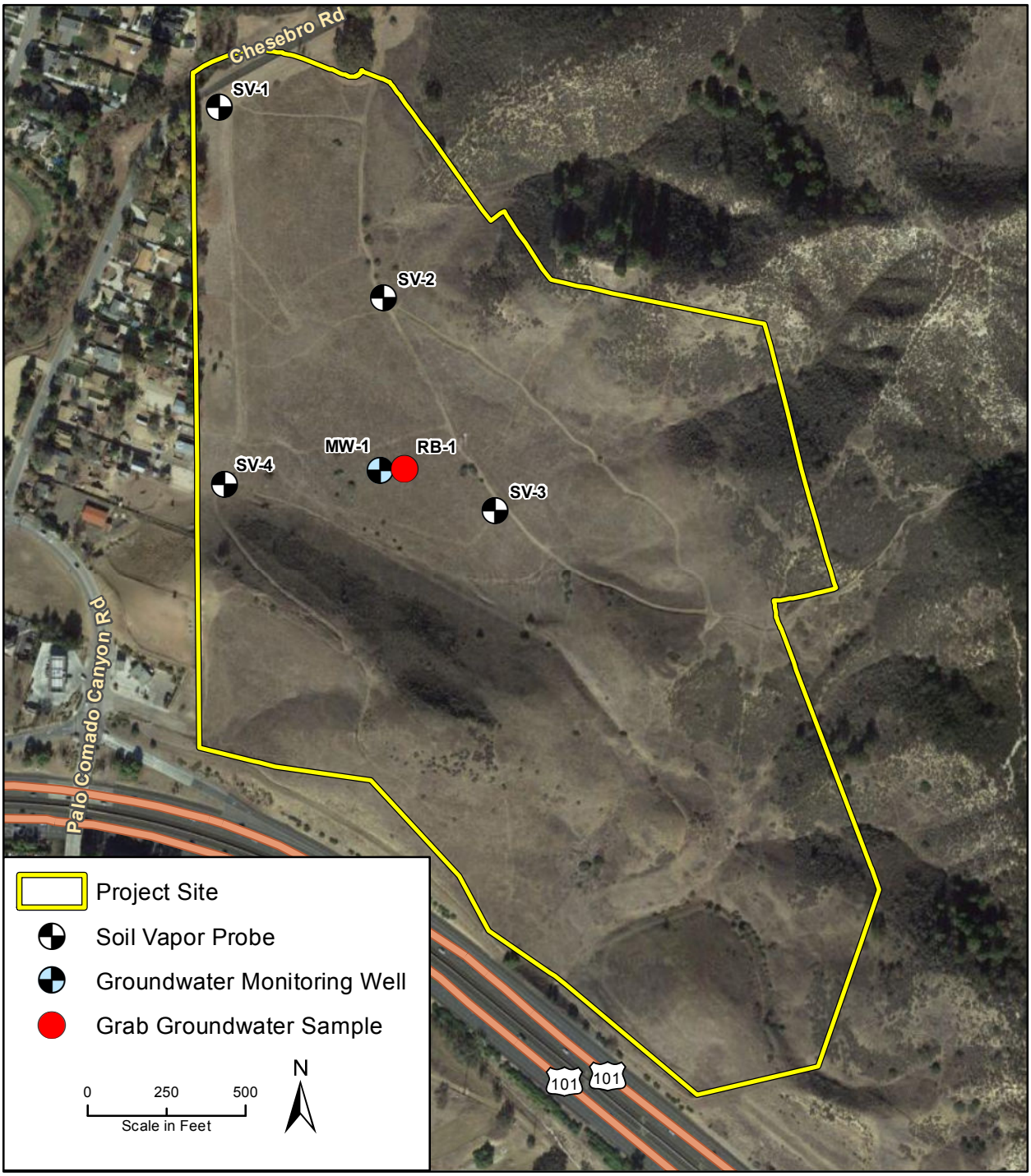
As part of the EIR prepared for the proposed Heschel West Day School project on the project site (June 2006), certified by Los Angeles County, the County of Los Angeles Sanitation Districts prepared a risk assessment document titled *Calabasas Landfill Risk Assessment and Environmental Controls,* dated August 30, 2005. Surface water sampling for volatile organic compounds (VOCs) was conducted at Chesebro Canyon Creek by the Sanitation Districts of Los Angeles County at the request of LARWQCB and was found to be not impacted from the landfill. The Sanitation District concluded that the landfill's impact to groundwater extends less than 1,700 feet from Barrier 5 (discussed below), which is over 0.5 miles from the project site.

Six subsurface barriers have been installed along the perimeter of the Calabasas Landfill to protect groundwater downgradient of the landfill. The subsurface barriers are comprised of a cement-bentonite slurry wall, extraction wells upgradient of the barriers, and monitoring wells downgradient of the barriers. The slurry wall is keyed a minimum of five feet into the bedrock on the sides and bottom to ensure no built up groundwater on site migrates downgradient. The extraction wells upgradient of the barriers collect water that would build up behind the subsurface barriers. The downgradient wells are monitored to assess effectiveness of the barriers and extraction wells in containing impacted groundwater beneath the site.

Three of the six subsurface barriers (Barriers 3, 4, and 5) are located along the western boundary of the landfill, and Barrier 2 is located south of the landfill. Barriers 2 and 5 monitor unlined portions of the landfill cells where releases have occurred. A report titled *Calabasas Landfill Combined Second Semiannual 2013 and Annual 2013 Water Quality Monitoring and Corrective Action Program Progress Report,* dated January 31, 2014 and prepared by the Sanitation Districts of Los Angeles County was reviewed on the GeoTracker database. According to the report, monitoring wells downgradient of Barrier 2 that were sampled contained low levels of VOCs associated with chlorinated solvents. The VOCs were below the established MCLs. Groundwater monitoring wells that were sampled downgradient of Barrier 5 also contained low levels of VOCs. Well P64S (located approximately 1,700 feet southwest of Barrier 5) contained a concentration of 1,2-dichloroethane at 5.2 micrograms per liter, which is above the established MCL of 0.5 micrograms per liter. However, the two most western wells closest to the project site (P68S and P69S) did not contain detectable concentrations of VOCs, and were below the established MCLs.

The Calabasas landfill has received ordinary solid waste from the Rocketdyne facility. According to the *Radioactivity Sampling Report for Calabasas Landfill*, prepared by the Sanitation Districts of Los Angeles County, no non-regulated radioactive materials (NRRM) were ever disposed of at the Calabasas landfill.

b. Phase II Environmental Site Assessment (ESA). A Phase II ESA was conducted within the project site to determine whether the nearby Calabasas Landfill has impacted the soil and groundwater beneath the site. Soil gas samples were analyzed for VOCs, and methane. Groundwater samples were analyzed for the constituents listed under Grab Groundwater Sampling below. The findings of the Phase II ESA are described below and the tables, analytical results, and Additional Groundwater Monitoring Assessment Summary are included in Appendix F. Figure 4.4-2 shows the boring locations and groundwater monitoring well location for the samples that were analyzed in the Phase II ESA.



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Soil Boring and Groundwater Monitoring Well Location Map

Figure 4.4-2

Soil Gas Sampling. On August 30, 2013, Environmental Support Technologies (EST), under the direction of Rincon, collected soil gas samples from the eight vapor probes installed to five feet and 15 feet below grade in four locations around the perimeter of the project site. The soil gas sampling was completed in accordance with the document *Advisory-Active Soil Gas Investigations,* Department of Toxic Substances Control, April 2012. The procedure for collecting samples from the probes was as follows. The tubing exiting the surface of the ground is connected to a vacuum gauge, a purge pump with a flow of 100 milliliters per minute, and glass sampling syringe.

Prior to sampling, a purge volume test was conducted at soil vapor probe SV1 at 5 feet below grade. One, three, and ten purge volumes were extracted from the probe and samples were collected and analyzed after each purge. The purpose of performing a purge volume test is to ensure that the soil vapor sample with the highest concentration of VOCs at one, three, or ten purge volumes is used so that the soil vapor probes are representative of subsurface conditions.

Since no VOCs were detected above the laboratory detection limit, sampling was conducted after the default three purge volumes were purged from every probe monitored during this assessment. Vacuum integrity of the sampling system was performed prior to and after the soil gas sample was collected. Leak-down testing was conducted to determine vacuum integrity. During the sampling, a cloth with 2-propanol was used as a leak check. Concentrations of 2-propanol detected in the samples would indicate the intrusion of ambient air into the sampling train, invalidating the results of the sample. Concentrations of 2-propanol were not detected in any of the soil gas samples collected during sampling.

Once the soil gas probe was purged, the glass syringe was filled and analyzed on site by the EST mobile laboratory for VOCs by EPA Method 8260SV. Rincon used a GEM™ 2000 Plus meter to monitor the eight probes for methane gas. The meter was turned on and connected to the valve on the probe. The methane percent was then recorded after five minutes of running time. Upon completion of sampling, Rincon abandoned the probes and backfilled all locations with bentonite.

Grab Groundwater Sampling. A groundwater sample (RB1) was collected on August 26, 2013. A hollow stem auger drill rig was used to drill the boring to depth and collect a groundwater sample. Groundwater was encountered at approximately 64 feet below grade. The hole was drilled to 70 feet below grade and the casing remained in place while sampling the groundwater. A disposable polyethylene bailer was then lowered into the auger casing to collect the groundwater sample. Based on the radioactivity and frequent VOC sampling conducted at the nearby Calabasas Landfill, samples were retained in several sampling containers and analyzed for the following constituents:

- Gross Alpha activity
- Gross Beta activity
- Tritium
- Isotopic Uranium
- Radium-226
- Radium-228
- Strontium-90
- Potassium-40
- Cessium-137
- Potassium
- Specific Conductance VOCs

Sampling Results. Results of the soil gas sampling indicate that VOCs were not detected above the established California Human Health Screening Levels (CHHSLs). Methane was not detected in any of the soil gas samples monitored. Conductivity and uranium isotopes were detected above the established MCLs for drinking water. Uranium and conductivity concentrations in turbid water are often high as a result of the turbidity. Since the grab groundwater sample was turbid, a groundwater monitoring well was installed on the project site. Refer to Table 4.4-1 for the results of groundwater sampling, and Table 4.4-2 for the results of soil gas sampling.

Groundwater Well Monitoring. Due to turbid conditions encountered and isotopic uranium concentration above the established MCL during the grab groundwater sampling event, a groundwater monitoring well was installed adjacent to soil boring RB1. Groundwater monitoring well MW-1 was installed in accordance with the approved Los Angeles County Environmental Health well application permit (permit #893225-1), and developed and sampled in accordance with the RWQCB guidance documents. On April 14, 2014 the groundwater monitoring well MW-1 was sampled. The groundwater sample was clear with a turbidity concentration of 8.62 Nephelometric Turbidity Units (NTUs). The groundwater sample was analyzed for isotopic uranium and specific conductance. Isotopic uranium was below the MCL at a concentration of 0.078 pCi/L, and specific conductance was above the secondary MCL at a concentration of 1,980 umhos/cm. This is below the uranium levels found at the landfill, which were between 0.08 and 135 pCi/L. The MCLs were established as drinking water standards, and the groundwater beneath the project site will not be used for drinking purposes. Conductivity is a measure of a solution's (groundwater) ability to conduct electricity. Since the groundwater sample was clear, the elevated detection of conductivity is likely associated with naturally occurring dissolved salts in the groundwater, which can cause higher conductivity. Naturally dissolved salts occur in groundwater in areas where the soil contains higher salt levels. These salts contain ions that increase conductivity in water. The results are summarized in Table 4.4-1.

Table 4.4-1
Groundwater Analytical Summary

Sample ID	Sample Date	Conductivity (umhos/cm)	Isotopic Uranium (pCi/L)
RB1	8/26/2013	2,190	62.6 ± 3.62
MW-1	4/14/2014	1,980	0.078 ± 0.266
Standards	Maximum Contaminant Level	--	20
	Secondary Maximum Contaminant Level	1,600	--

Notes: For the complete list of analytical results, see Table 4.4-1 (Appendix F).
pCi/L- picoCuries per liter
umhos/cm- micromhos per centimeter
± - indicates County Errors (CE) in radioactivity analysis. CEs reflect the randomness of the decay of radionuclides and represent the variability in analyzing radioactivity in groundwater samples.

Table 4.4-2
Soil Gas Analytical Summary- VOCs and Methane

Soil Vapor Probe	Sampling Depth (feet)	Toluene (µg/L)	Ethylbenzene (µg/L)	Other VOCs (µg/L)	Methane (%)
SV1	5	ND	ND	ND	0.0
	15	1.1	0.23	ND	0.0
SV2	5	ND	ND	ND	0.0
	15	ND	ND	ND	0.0
SV3	5	ND	ND	ND	0.0
	15	ND	ND	ND	0.0
SV4	5	ND	ND	ND	0.0
	15	ND	ND	ND	0.0
Detection Limit		0.5	0.2	0.2 to 1	--
CHHSL-Residential		*135*	*NE*	*Varies*	*NE*

ND - Not detected above laboratory detection limit.
NE – Not Established
µg/L- micrograms per liter.
VOCs - Volatile organic compounds

c. Sensitive Receptors. For the purpose of this analysis, sensitive receptors are defined as any facilities or land uses that include people who are particularly sensitive to the effects of hazardous materials. Typical sensitive receptors are residences, elderly facilities, and schools. As the project includes proposed single-family residential uses, it would contain sensitive receptors. The nearest existing sensitive receptors in the project site vicinity are single-family residences located adjacent to the western boundary of the site. As discussed in the Initial Study (see Appendix A), the closest school is the Partners in Learning Pre-school and Kindergarten located at 5251 Chesebro Rd., 0.1 miles west of the proposed project parcel.

d. Regulatory Setting.

State and Federal. State and federal governmental agencies regulate the use, storage, and transport of hazardous materials through numerous legal and regulatory requirements. Among other requirements, existing regulations require businesses that store, use, or manufacture specific amounts of hazardous materials to report the quantities and types of materials to the local administering agency. For the City of Agoura Hills, the Los Angeles County Fire Department (LAFD) Health Hazardous Materials Division (HHMD) is the regulatory agency with primary responsibility for ensuring that businesses in the County handle, store, and dispose of and clean up hazardous materials in accordance with applicable laws and regulations. The LAFD HHMD also implements requirements pertaining to the use and storage of flammable and explosive materials. Additionally, the SCAQMD oversees the permitting process for hazard remediation for certain hazardous materials.

The U.S. Environmental Protection Agency (EPA) sets Regional Screening Levels for soil and indoor air for residential and industrial uses, which are normally utilized in determining the

allowable levels of a potential contaminant at a particular site. Similarly, MCLs are used for establishing permissible contaminant levels in drinking water. Detectable concentrations of shallow soil gas were compared to the CHHSLs established for residential land use. The CHHSLs are concentrations of hazardous chemicals in soil or soil gas that the California Environmental Protection Agency (Cal/EPA) considers to be below thresholds of concern for risks to human health. The CHHSLs were developed by the Office of Environmental Health Hazard Assessment (OEHHA) on behalf of Cal/EPA.

City of Agoura Hills. The City of Agoura Hills General Plan Safety Element promotes the protection of residents, visitors, property, and sensitive receptors from exposure to hazardous materials. Specifically, Goal S-5 and Policy S-5.6 regulate the protection and siting of hazardous materials sites and sensitive receptors in relation to one another.

4.4.2 Impact Analysis

a. Methodology and Thresholds of Significance. The assessment of potential hazardous impacts is based on searches of hazardous sites in the project site and a Phase II ESA conducted for proposed residential development as part of Phase 1 of the Agoura Equestrian Estates Project. Appendix G of the *CEQA Guidelines* considers a project to have significant environmental impacts if the project would:

- Be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;

The following topics were determined to be less than significant or have no impact in the Initial Study prepared for this project (see Appendix A) and are not discussed any further.

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project site;
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project site;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

b. Project Impacts and Mitigation Measures.

Impact HAZ-1 Four listed LUST sites are located within one-half mile of the project site. Due to the case closed status of three of these sites and distance of the open LUST site to the project site, impacts during Phase 1 and 2 from listed environmental sites would be Class III, *less than significant*.

As discussed in Section 4.4.1, *Setting*, a search of the GeoTracker database identified LUST cleanup sites at four locations within one-half mile of the project site. Three of the four LUST sites have been remediated, leaving soil and groundwater contaminant levels below applicable regulatory thresholds. These three listed environmental sites are in case closed status. Therefore, none of these sites would adversely affect future onsite development.

The open LUST site (Agoura Shell gas station) is located approximately 1,050 feet southwest of the project site at 5116 North Chesebro Road. No information regarding the Agoura Shell gas station site and media affected was available on the SWRCB GeoTracker website. However, based on groundwater assessments conducted at two nearby closed LUST sites located at 5226 Palo Comado Canyon Road sites (Former Shell Service Station) and at 28203 West Dorothy Drive (76 Service Station Number 2705730), groundwater in the area flows predominately to the west and southwest. Due to the location of Agoura Shell gas station site southwest of the project site, if groundwater below the Agoura Shell gas station has been adversely impacted with contaminants, it would be expected to flow away from and not beneath the project site. Therefore, significant impacts would not occur during Phase 1 or 2.

Mitigation Measures. No mitigation would be required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Impact HAZ-2 The Calabasas Landfill is located approximately 0.75 miles northeast of the project site. Based on the results of the Phase II ESA conducted on the project site, and the environmental control systems currently in place at the landfill, impacts from this listed environmental site on the development would be Class III, *less than significant*.

As discussed in Section 4.4.1, *Setting,* the Calabasas Landfill contains environmental controls including subsurface barriers, groundwater monitoring wells, a landfill gas collection system, landfill gas migration monitoring probes, and water trucks, in order to monitor and prevent potentially hazardous releases from the landfill. The westernmost groundwater monitoring wells are the closest to the project site. These wells are associated with Barrier 5 and according to testing do not contain detectable concentrations of VOCs. Also, it was determined that detected levels of isotopic uranium and alpha particles downgradient of the landfill were likely

from natural sources and not from the landfill (RWQCB *Waste Discharge Requirements – Calabasas Landfill*, pages 4-5). Based on the Phase II ESA conducted on the project site, the soil gas beneath the project site has not been impacted by VOCs or methane, and groundwater beneath the site has not been impacted by VOCs or radioactive waste constituents.

Based on these findings, neither proposed site improvements as part of Phase 1 of the project nor the construction of 15 single family residences as part of Phase 2 would be expected to encounter hazardous materials in concentrations exceeding regulatory action levels or that would otherwise affect human health or safety. There is no evidence to suggest that the development of 15 residences on the site would pose any short- or long-term threats to the health or safety of site residents. Therefore, impacts related to hazardous materials would be less than significant.

Mitigation Measures. No mitigation would be required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

c. Cumulative Impacts. Cumulative development in Agoura Hills would have the potential to expose future area residents, employees, and visitors to hazards by developing and redeveloping areas that may previously have been contaminated. As discussed in Section 3.0, *Environmental Setting*, planned cumulative development in the City would add 148 dwelling units and an estimated 168,124 square feet of commercial, office, and retail space. The magnitude of hazards for individual projects would depend upon the location, type, and size of the development and the specific hazards associated with individual sites. Therefore, hazard evaluations would need to be completed on a case-by-case basis. If soil and groundwater contamination is found to be present on sites of planned and future development, these conditions would be required to be mitigated so as to meet regulating agency remediation goals. Implementation of appropriate remedial action on all contaminated sites on a case-by-case basis would avoid potential hazard impacts associated with cumulative development in the City. Hazard-related impacts resulting from cumulative development would be less than significant.

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4.5 HYDROLOGY and WATER QUALITY

This section analyzes the potential for the proposed project to adversely affect hydrology and water quality. This section is partially based on a surface drainage study prepared for the project (Hydrology Study for Vesting Tentative Tract No. 72316 prepared by Hardy Engineering, July 25, 2014), incorporated herein by reference (Appendix G), and reviewed by the City Public Works Department.

4.5.1 Setting

a. Project Site Hydrology. The project site is located at the base of the Santa Monica Mountains. The site includes approximately 71 acres and is north of U.S. 101. The project site is undeveloped and undisturbed with the exception of an existing informal equestrian trail. The project site consists of relatively flat valley areas and moderate to moderately steep vegetated slopes.

b. Surface Drainage. Surface drainage on the project site flows in two directions. Drainage in the northern portion of the project site flows from the mountains down into the flat portion of the site and then sheet flows towards Chesebro Road and Chesebro Canyon Creek. Drainage from the southern portion of the site flows down the hills towards U.S. 101 and drains through culverts under the freeway.

c. Flood Hazard Zones and Dam Inundation. Potential flood hazards may result from overflow of natural watercourses and man-made drainage systems due to excessive and unusual storm run-off. The City of Agoura Hills existing storm drain system and flood control facilities generally have sufficient capacity to provide developed areas with adequate protection from flooding. The project site is located in flood Zone X and Zone AE (see Figure 4.5-1). Flood Zone X is an area with a 0.2 percent annual chance of flood and is not within the 100-year flood zone. Flood Zone AE is an area with a 0.1 percent annual chance of flood and is within the 100-year flood zone (FEMA Flood Map, Panel No. 06037C1263F, September 2008). Lake Lindero is located in Lindero Creek, approximately three (3) miles west of the project site. In the case of a full or partial failure of Lake Lindero, the lake's water would flow into Lindero Creek, which is not near the project site.

d. Surface Water Quality. Pollutant discharge from the project site in stormwater runoff has the potential to affect the water quality of Chesebro Canyon Creek and other downstream water bodies within the Malibu Creek Watershed. General categories of substances that impact water quality are metals, pesticides, pathogens, nutrients, sedimentation/siltation, salinity/total dissolved solids/chlorides, trash, and priority organics. The Clean Water Act requires the State of California to set Water Quality Standards (WQS) that are based on the designated beneficial uses for the water body (e.g. recreation, water supply, aquatic life, agriculture), and to identify those water bodies that repeatedly fail to meet WQS. Water bodies that repeatedly fail to meet WQS are required have Total Maximum Daily Loads (TMDLs) for pollutants causing the impairments from point and non-point sources. Designated beneficial uses and WQS for waters within the Malibu Creek Watershed can be found in the Los Angeles Region Water Quality Control Plan (LARWQCP) and U.S. Environmental Protection Agency documents for the Malibu Creek Watershed. The California Water Quality Control Board regularly publishes the

Imagery provided by Google and its licensors © 2014. Additional data layers from Federal Emergency Management Agency National Flood Hazard Layer (NFHL), September 11, 2014.

FEMA Flood Zones

Figure 4.5-1

303(d) list of water quality limited segments, i.e. those segments that require or have established TMDLs. The Chesebro Canyon Creek is not listed.

The project site currently is in a natural condition, with the exception of the existing informal trail. There are no existing land uses or known conditions on-site that could potentially be detrimental to either surface water or groundwater quality. The site is well vegetated and terrain surfaces are permeable. As a result the site has normal rates of infiltration and erosion.

Erosion includes the movement of soil by surface waters due to sheet flow or in natural channels. Water quality problems caused by erosion, such as high sediment loads, total suspended solids, and turbidity can affect aquatic plant growth and survival and reproduction of some animal species. Sediment is also one of the primary sources of pollutants since bacteria, metals, hydrocarbons, and organic matter can attach to fine particles and/or be trapped within sedimentary deposits.

e. Regulatory Setting.

Federal. The federal Water Pollution Control Act, also known as the Clean Water Act (CWA), is the principle statute governing water quality. The statute's goal is to end all discharges entirely and to restore, maintain, and preserve the integrity of the nation's waters. It mandates permits for wastewater and stormwater discharges, requires states to establish site-specific water quality standards for navigable bodies of water, and regulates other activities that affect water quality, such as dredging and filling wetlands.

Water quality standards mandated by the CWA consist of four basic elements:

- Designated uses of the water body (e.g., recreation, water supply, aquatic life, agriculture);
- Water quality criteria to protect designated uses (numeric pollutant concentrations and narrative
- requirements);
- An anti-degradation policy to maintain and protect existing uses and high quality waters; and
- General policies addressing implementation issues (e.g., low flows, variances, mixing zones).

Water quality regulation requires states and tribes to establish a three-tiered anti-degradation program. Anti-degradation implementation procedures identify the steps and questions that must be addressed when regulated activities are proposed that may affect water quality. The specific steps to be followed depend upon which tier or tiers of the anti-degradation program apply.

For stormwater discharges into an existing waterway, water quality control is governed by a National Pollutant Discharge Elimination System (NPDES) Permit. The major CWA section that applies to activities potentially occurring as part of onsite development is NPDES Section 402. Section 402 (33 U.S.C. 1342 and 40 CFR 122) establishes a permitting system for the discharge of any pollutant (except dredge and fill material) into waters of the United States. An NPDES

permit is required for all point source discharges of pollutants to surface waters. A point source is a discernible, confined, and discrete conveyance, such as a pipe, ditch, or channel.

The major purpose of the NPDES program is to protect human health and the environment by protecting the quality of water. California's primary statute governing water quality and water pollution is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) broad powers to protect water quality and is the primary vehicle for implementation of California's responsibility under the federal CWA. The Porter- Cologne Act grants the SWRCB and RWQCBs the authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites, and to require clean up of discharges of hazardous materials and other pollutants. Each regional board is required to adopt a water quality control plan or basin plan that reflects the regional differences in existing water quality, the beneficial uses of the region's ground and surface water, and local water quality conditions and problems. The boards implement the permit provisions (Section 402) and certain planning provisions (Sections 205, 208, and 303) of the CWA. This means that the state issues one discharge permit for purposes of both state and federal law. Under state law, the permit is officially called Waste Discharge Requirement. Under federal law, the permit is officially called an NPDES General Permit.

As the basic federal regulatory and enforcement tool under the CWA, the NPDES program incorporates specific discharge limitations to ensure that water quality standards are met for stormwater discharges from municipal storm sewer systems (MS4s) and industrial sites. The NPDES program was established by the Environmental Protection Agency (EPA). Congress amended the CWA in 1987 to require the implementation of a two-phased program to address other stormwater discharges. Phase I**,** established by EPA in November 1990, requires NPDES permits for stormwater discharges from construction sites disturbing greater than five acres of land. After Phase I implementation, the EPA recognized that smaller construction projects (those disturbing less than five acres) were also contributing substantially to pollutant discharges. In response, the EPA instituted NPDES Phase II in December 1999 with the regulations becoming effective in February 2000. Phase II requires NPDES permits for stormwater discharges from construction sites disturbing between one and five acres of land. The Phase II NPDES Program is intended to reduce adverse impacts to water quality and aquatic habitat by instituting the use of controls on the unregulated sources of stormwater discharges that have the greatest likelihood of causing continued environmental degradation. Stormwater discharges from urbanized areas are a concern because of the high concentration of pollutants found in these discharges.

The Construction General Permit was updated on July 1, 2010. Two new elements were included in the new CGP. First, a Stormwater Pollution Prevention Plan (SWPPP) must be written, amended, and certified by a *Qualified SWPPP Developer* (QSD). Second, construction projects will be assigned a *Risk Level* (Risk Level 1 – 3) based on site characteristics for erosion potential, threat to "receiving waters," and the time of year that the project activity would occur. The project Risk Level determines compliance requirements set forth in the permit.

Concentrated development in urbanized areas substantially increases impervious surfaces, such as city streets, driveways, parking lots, and sidewalks, on which pollutants from human

activities settle and remain until a storm event washes them into nearby storm drains. Common pollutants may include sediment, nutrients, bacteria and viruses, oil and grease, organic compounds, and gross pollutants such as trash. Stormwater runoff picks up, transports, and discharges these pollutants, untreated, to waterways via storm drain systems. These discharges can result in the loss of wildlife habitat, reduced aesthetic value, and contamination of recreational waterways that can threaten public health.

The CWA requires that states submit plans to the EPA, defining water quality standards in order to achieve designated beneficial uses. States designate uses for all water body segments and then set water quality criteria necessary to protect these uses. In addition, each state identifies waters failing to meet standards for specific pollutants. If the state determines that waters are impaired for one or more constituents, and the standards cannot be met through point source controls, the CWA requires establishing Total Maximum Daily Loads (TMDLs) that will achieve applicable standards. TMDLs represent the allowable pollutant load from all sources (point, non-point, and natural) for a given watershed.

The Safe Drinking Water Act (SDWA) was established in 1974 to protect the quality of drinking water in the U.S. This law focuses on all waters actually or potentially designated for drinking use, whether from above ground or underground sources. It establishes maximum contaminant levels (MCLs) for a broad range of chemical compounds and other constituents (approximately 86 constituents in water) deemed hazardous to human health. Primary MCLs are health-based and Secondary MCLs are related to aesthetic qualities of water, such as taste and appearance. As such, MCLs form the basis of drinking water quality regulations.

State. In addition to standards and regulations established by the federal program, California adopted a number of other more stringent legislative acts in order to further strengthen state water quality standards. These acts include the Porter-Cologne Water Quality Act, California Water Code, Title 23 of the California Code of Regulations, and the California Oceans Plan. Within California, the State Water Resources Control Board (SWRCB) is responsible for developing and implementing water quality control policy. SWRCB is the agency designated by the EPA for administering applicable Federal CWA program, which include adopting water quality standards for state waters. Nine Regional Water Quality Control Boards (RWQCBs) administer these federal programs, including NPDES compliance. The Los Angeles Regional Water Quality Control Board (LARWQCB) oversees water quality permitting in the City of Agoura Hills. While federal regulations allow two permitting options for stormwater discharges (individual permits and General Permits), the SWRCB has elected to adopt only one statewide General Permit that applies to all stormwater discharges associated with construction activity, except from those on Tribal Lands, in the Lake Tahoe Hydrologic Unit, and those performed by the California Department of Transportation (Caltrans). This General Permit requires all dischargers where construction activity disturbs one acre or more to:

1. Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving off-site into receiving waters.

2. Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation.
3. Perform inspections of all BMPs.

On December 13, 2001, the LARWQCB, adopted Order No. 01-182. This Order is the NPDES Permit (NPDES No. CAS004001) for municipal stormwater and urban runoff discharges within the County of Los Angeles. As adopted in December 2001, the requirements of Order No. 01-182 (the "Permit") covers 84 cities and the unincorporated areas of Los Angeles County, with the exception of the portion of Los Angeles County in the Antelope Valley, including the cities of Lancaster and Palmdale, the City of Long Beach, and the City of Avalon. Under the Permit, the Los Angeles County Flood Control District is designated as the Principal Permittee; the County of Los Angeles along with the 84 incorporated cities, including the City of Agoura Hills, are designated as Permittees.

In compliance with the Permit, the Permittees implemented a stormwater quality management program (SQMP) with the ultimate goal of accomplishing the requirements of the Permit and reducing the amount of pollutants in stormwater and urban runoff. One specific requirement of a SQMP is the Standard Urban Stormwater Mitigation Plan (SUSMP). The SUSMP outlines the necessary Best Management Practices (BMPs) that must be incorporated into design plans for certain categories of development and/or redevelopment. The LARWQCB adopted a Water Quality Control Plan (Basin Plan) on June 13, 1994. The Basin Plan designates beneficial uses and establishes water quality objectives for groundwater and surface water within the Los Angeles Region. It has been amended, but not updated since 1994. Section 13260(a)(I) of the California Water Code (CWC) addresses waste discharges that could affect the State's waters. It requires that any person discharging wastes or proposing to discharge wastes that could affect the quality of State waters, into other than a community wastewater collection system, must file a Report of Waste Discharge with the RWQCB. The RWQCB would then prescribe requirements for the discharge or proposed discharge of wastes in accordance with provisions in Section 13260(1) of the CWC.

Los Angeles County. Mosquito vectors are controlled by the Greater Los Angeles County Vector Control District. Property owners within the Los Angeles County Region are required to work with the Vector Control District to ensure that ideal conditions for mosquito breeding do not arise on their property.

City of Agoura Hills. The City of Agoura Hills General Plan Natural Resources Element promotes the protection of the water quality of local watersheds and groundwater resources (Goal NR-6). In particular, Policies NR-6.4 and 6.7 are to improve and maintain urban runoff water quality through stormwater protection measures. As a permittee within the County of Los Angeles Municipal Stormwater NPDES permit, the City is required to comply with several programs to insure water that is discharged from its limits meets the requirements mandated by the NPDES permit.

4.5.2 Impact Analysis.

a. Methodology and Significance Thresholds. To analyze hydrological conditions on the project site, hydrological information was collected from the City of Agoura Hills General Plan, hydrology and water quality maps, the City of Agoura Hills Municipal Code, the State

Water Resources Control Board, and the Los Angeles Regional Water Quality Control Board. Information was compared to CEQA thresholds to determine impacts related to flooding, surface water quantity and quality, and ground water quantity and quality.

In accordance with Appendix G of the *CEQA Guidelines*, on-site development would have a significant hydrology/water quality impact if it would cause any of the following:

- Violate any water quality standards or waste discharge requirements
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering or the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff
- Otherwise substantially degrade water quality
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows
- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam

The following topic was determined to have no impact. It is discussed in the Initial Study prepared for this project (see Appendix A).

- Result in inundation by seiche, tsunami, or mudflow

b. Project Impacts and Mitigation Measures.

Impact HWQ-1 During project grading and construction and long-term operation of the project for both Phases 1 and 2, the soil surface would be subject to erosion and the downstream watershed could be subject to temporary sedimentation and discharges of various pollutants. However, measures have been incorporated into the project to minimize these effects and the project would be required to comply with the NPDES General Construction Permit, which would result in a Class III, *less than significant,* impact.

Grading during the construction of Phases 1 and 2 of the project would alter the existing drainages and would disrupt existing patterns of surface flow within the grading envelope. Figure 4.5-2 shows the existing hydrology and drainage on the site. Figure 4.5-3 shows the proposed hydrology and drainage on the site. Grading and other construction activities during Phases 1 and 2 of the project have the potential to generate soil erosion and to increase sediment loads in stormwater runoff. Also, spills, leakage, or improper handling and storage of substances, such as oils, fuels, chemicals, metals, and other substances from vehicles, equipment, and materials used during the construction of Phases 1 and 2 could cause pollutants to be present in stormwater runoff and impact downstream water bodies.

The applicant would be required to obtain a National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Disturbance Activities (Order No. 2009-0009-DWQ).

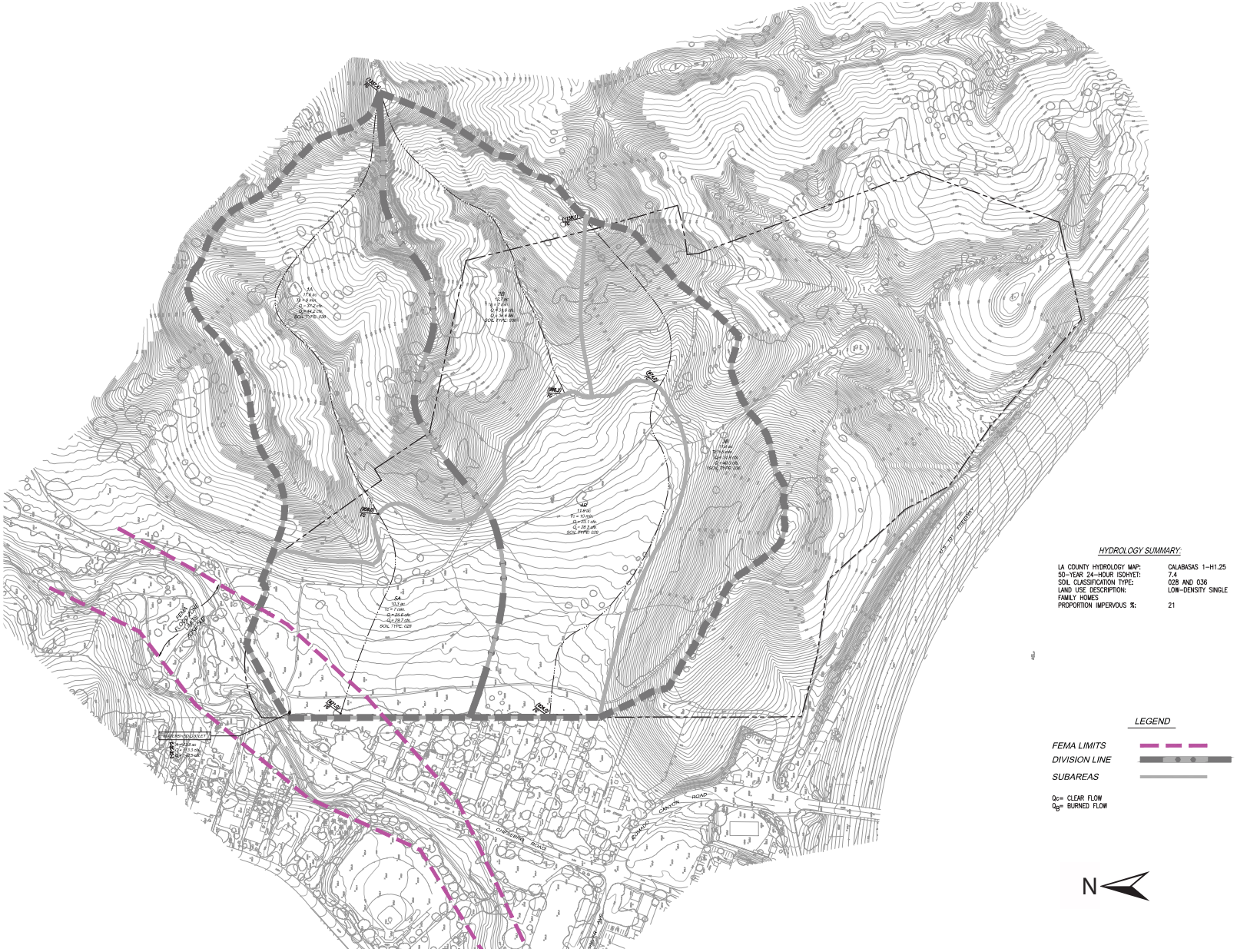
Pursuant to Section 5508 of the City of Agoura Hills Municipal Code:

> *"Each industrial discharge, discharger associated with construction activity, or other discharger described in any general storm water permit addressing such discharges, as may be issued by the U.S. Environmental Protection Agency, the state water resources control board, or the regional board shall comply with all requirements of such permit. Each discharger identified in an individual NPDES permit shall comply with and undertake all activities required by such permit. Proof of compliance with any such permit may be required in a form acceptable to the city engineer or his designated representative, prior to the issuance of any grading, building or occupancy permits, or any other type of permit or license issued by the city."*

Dischargers disturbing one acre or more are required to develop and implement a Stormwater Pollution Prevention Plan (SWPPP) under the Construction General Permit, 2009-0009-DWQ Permit, adopted by the State Water Resources Control Board (SWRCB), effective July 1, 2010. The SWPPP specifies Best Management Practices (BMPs) that would prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving off-site into receiving waters; eliminate or reduce non stormwater discharges to storm sewer systems and other waters of the nation; and implement a monitoring program that incorporates procedures to determine whether BMPs are effectively protecting on and off-site water quality.

Determination of compliance requirements is made by a Qualified SWPPP Developer (QSD). The QSD must be a:

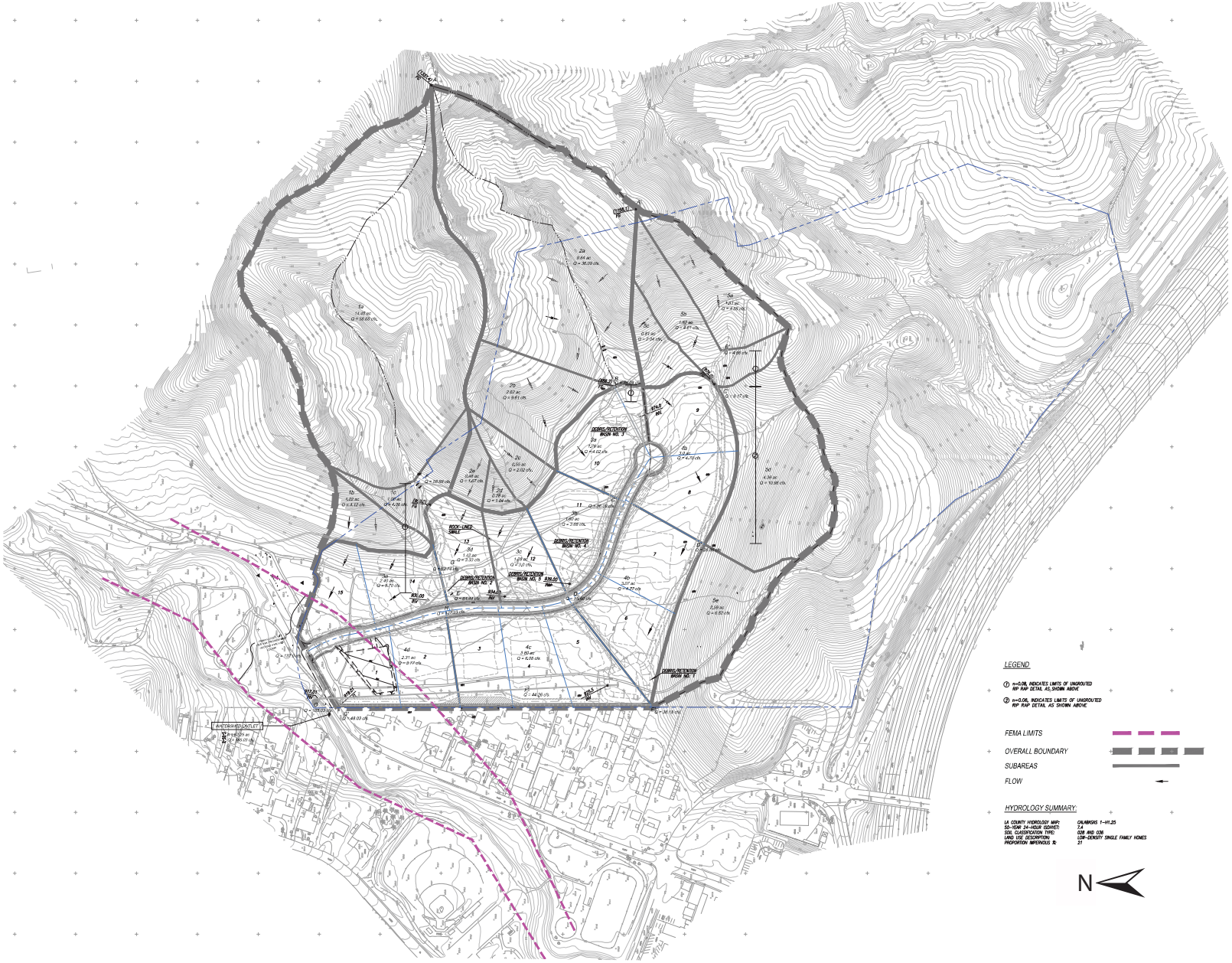
- Licensed Engineer, Geologist, or Landscape Architect with the State of California,
- Certified Hydrologist,
- Professional in Storm Water Quality (CPSWQ), or
- Certified Professional in Erosion and Sediment Control (CPESC).



Existing Hydrology

Figure 4.5-2

Source: Hardy Engineering, 2014.



Source: Hardy Engineering, 2014.

Proposed Hydrology

Figure 4.5-3

The QSD will evaluate the project and assign a Risk Level (Risk Level 1 – 3) based on site characteristics for erosion potential, threat to "receiving waters," and the time of year that the project activity would occur. The project Risk Level determines compliance requirements set forth in the permit. BMPs will be applied based on the Risk Level of the project and the site characteristics. Strategies to control the quality of runoff may include the following methods, depending on the site characteristics and the scope of the project.

- Erosion Control: Measures that prevent erosion and keep soil particles from entering stormwater, lessening the eroded sediment that must be trapped, both during and at completion of construction. Feasible methods might include hydroseeding or using non-toxic soil binders.

- Sediment Control: Feasible methods of trapping eroded sediments so as to prevent a net increase in sediment load in stormwater discharges from the site. Strategies to reduce sediment loading might include the use of silt fences, hay bales, or sand bags around storm drain inlets.

- Site Management: Methods to manage the construction site and construction activities in a manner that prevents pollutants from entering stormwater, drainage systems or receiving waters. Strategies to maintain the construction site may include watering active construction areas two or more times per day to reduce airborne soil particles, sweeping adjacent streets to reduce soil tracked onto streets by construction vehicles, anti-tracking pads at site exits to prevent the offsite transport of materials, and pollutant containment areas for construction related equipment and processes that generate pollutants, such as construction staging areas.

- Materials and Waste Management: Methods to manage construction materials and wastes that prevent their entry into stormwater, drainage systems, or receiving waters. Feasible methods to manage materials and waste may include provision of designated recycling and disposal areas for general waste, construction waste and industrial wastes such as concrete dust, cutting slurry, motor oil and lubricants.

Phase 1 of the project includes the installation of drainage improvements. The drainage system includes a series of earthen and rock lined swales capturing runoff from the surrounding hills and residential lots, which would then enter a series of debris retention basins. Inlet/outlet structures in the basins would capture surface runoff and place it into underground pipes and then outleting at a headwall in Chesebro Canyon Creek. The debris detention basins act as a filter system for sediment and other pollutants. The Phase 1 grading is limited to what is necessary to install the road, trails and drainage improvements, as well as to raise Lot 1 for flood purposes, and would not result in grading of the residential lots 2-15. Therefore, grading as part of Phase 1 would be minimized to the extent feasible. As part of the Phase 1 grading of the site, given that over one acre would be graded, a SUSMP would be required. The SUSMP would include BMPs to ensure that water pollution does not filter into groundwater or Chesebro Canyon Creek. This could include filters in the debris detention basins and bioswales.

Section 5509 of the Municipal Code requires preparation of a Standard Urban Storm Water Management Plan (SUSMP) for a variety of projects, including single family residences. As part

of Phase 2, a SUSMP would also be required. The SUSMP would include measures to address sedimentation and runoff and water quality on an ongoing basis for each residential lot as it is developed in the future. These could include onsite bioswales, outlet filters, as well as minimizing impervious paving, etc. A SUSMP would be required to be submitted to the City for review and approval prior to issuance of a grading permit or building permit for the residence(s).

Proof of compliance with the General Permit, including the SWPPP and SUSMP, would be required pursuant to Sections 5508 and 5509 of the City of Agoura Hills Municipal Code, prior to the issuance of grading, building, or occupancy permits. Therefore, impacts related to stormwater quality during construction and long-term operation of the project would be less than significant.

Mitigation Measures. Compliance with the SWPPP and SUSMP required under the NPDES General Permit would ensure that temporary impacts during construction, and potential long term impacts from ongoing residential activities, to erosion/sedimentation and water quality are less than significant. No additional mitigation is necessary.

Significance After Mitigation. Impacts would be less than significant.

Impact HWQ-2 Both Phases 1 and 2 of the proposed project would alter the existing drainage pattern on the project site. However, drainage on the project site would not exceed the capacity of the off-site storm drain system. Therefore, impacts would be Class III, *less than significant.*

The proposed grading and storm drain system would alter the over land flow of water within the development footprint, including the lower portions of existing drainages. Stormwater within the development footprint would be collected and conveyed via the proposed on-site debris detention basins and swales to underground pipes. The proposed system includes three permanent detention basins, two temporary detention basins, and a drainage swale. The two temporary basins would be used until Lots 11 and 12 are developed with residences, and three basins would remain permanently. The runoff would be collected in the basins and the swales, then would travel through underground pipes to an outlet on the opposite side of Chesebro Road and into Chesebro Canyon Creek. The project site naturally slopes towards the creek, which currently receives the majority of the runoff from the site via sheet flow. The proposed drainage system has been designed to accommodate 50 year storm flows for the site.

Drainage patterns would not be altered for the portions of the site that are not proposed to contain the road, trails or houses.

The proposed project would not have an adverse effect on existing drainage systems. Stormwater flows from the site would not exceed the capacity of the off-site storm drain system since the system is specifically being designed and constructed to accommodate the project. Therefore, Phases 1 and 2 of the project would result in less than significant flooding impacts due to alteration of drainage pattern and site development, and would not require any drainage facilities beyond those currently planned.

Mitigation Measures. Impacts would be less than significant; therefore, mitigation is not required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Impact HWQ-3 Pollutants associated with operation of the project in Phases 1 and 2 could be discharged into the storm drain system. However, the project includes filtering systems. In addition, the project would be required to comply with NPDES permit requirements regarding runoff from the site. Impacts would be Class III, *less than significant*.

The National Pollutant Discharge Elimination System (NPDES) Permit regulates and ensures protection of stormwater resources. As noted in subsection 4.5.1 under "City of Agoura Hills," General Plan Goal NR-6 (protection of the water quality of local watersheds and groundwater quality, and Policy NR-1.3 (Slope Preservation), Policy NR-6.4 (Protect Open Space Areas and Water Resources), Policy NR-6.5 (Watershed Education), Policy NR-6.6 (Cooperation with Other Agencies), Policy NR-6.7 (Stormwater Quality), Policy NR-6.8 (New Development), Policy NR-4.2 (Conserve Natural Resources), Policy NR-4.11 (Creeks and Natural Resources), Policy U-3.5 (Protection of Water Bodies), and Policy U-3.6 (Bioswales) address minimizing water pollution. The uses proposed on the project site in both phases would not create effluent discharges from point sources and therefore the project would not violate any waste discharge requirements. Pollutants that may be present on-site during operation of Phases 1 and 2 of the project could include pesticides, herbicides, and fertilizers used for landscaping, and oil, gasoline, metals, and other substances from vehicles. If untreated, the pollutants could be discharged into the off-site storm drain system. However, stormwater runoff from developed hardscape, such as parking areas, would be partially reduced based on the use of permeable materials, with the remainder directed to the swales, detention basins, or pipes. The City Architectural Design Standards and Guidelines, Section VI. Old Agoura Design Guidelines, which would apply to the project, state that permeable and semi-permeable surfaces should be installed wherever possible. These include interlocking concrete manufactured pavers, natural flag stone, and decomposed granite. The swales and detention basins would trap and/or treat many pollutants, including sediment, pathogens, and nutrients, and would generally reduce the potential for pollutant loading to Chesebro Creek.

Phases 1 and 2 of the project would be required to comply with NPDES standards, including implementation of BMPs and the Standard Urban Stormwater Mitigation Plan (SUSMP). Several BMPs are already included in the project, like swales and debris detention basins. Per the SUMSP, methods to minimize pollutants in the storm drain system would be required to be incorporated into the project; these may include filters prior to storm water outleting into Chesebro Canyon Creek. Implementation of the NPDES requirement, would result in less than significant impacts to surface water quality from stormwater runoff for Phases 1 and 2.

Mitigation Measures. Impacts would be less than significant; therefore, mitigation is not required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Impact HWQ-4 Both phases of the project would increase impervious surfaces on the site and could interfere with groundwater recharge. However the majority of the site would remain unpaved. Impacts would be Class III, *less than significant*.

The project site is currently unpaved. Phase 1 of the project includes constructing a private road, storm drain improvements, trails, fencing and the grading of Lot 1 only. Phase 2 consists of constructing 15 single family residences in the future. The private road and the residences would increase the amount of impervious surfaces on the site. Impervious surfaces would incrementally reduce the flow rate and volume of storm water. This could interfere with groundwater recharge. However, the site is approximately 71 acres of vacant land. The project would develop 22 acres (approximately 32 percent) of the site. The majority remainder of the project site at 49 acres would be designated as open space and would not contain any impervious surfaces. For the portions of the site to be developed, the Zoning Ordinance and the City's Architectural Design Standards and Guidelines, Section VI. Old Agoura Design Guidelines, regarding impervious surfaces would apply. Compliance with the Zoning Ordinance and Architectural Design Standards and Guidelines would minimize impervious surfaces onsite to a less than significant level.

Additionally the project would be required to connect to the Las Virgenes Municipal Water District (LVMWD) for water service. The project would not be using groundwater to provide potable water to the project. Therefore the project would not substantially deplete groundwater resources. Impacts would be less than significant.

Mitigation Measures. Impacts would be less than significant; therefore, mitigation is not required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Impact HWQ-5 A portion of the project site is located within the 100-year flood plain, including a portion in the floodway. Development of structures on Lots 1, 2 and 15 as part of Phase 2 could result in flood hazards. Impacts would be Class II, *less than significant with mitigation incorporated*.

A portion of the project site is located within the floodway and floodplain of Chesebro Canyon Creek (see Figure 4.5-1). The creek is located on the northwest side of Chesebro Road, across from the project site. A portion of Lots 1, 2, and 15 are located within the FEMA Flood Zone AE (floodway, 0.1 percent annual chance of flood hazard), while another portion is within Zone X (0.2 percent annual chance of flood hazard). Phase 1 of the project would add fill dirt to Lot 1 in order to ensure that grading cut and fill in Phase 1 is balanced onsite. This would raise the site

out of the flood plain without raising the base foundation elevation. A less than significant impact would result from Phase 1.

Any construction of buildings on these three lots during Phase 2 would be required to comply with the City of Agoura Hills Municipal Code Section 3707, which outlines construction standards for buildings within the flood plain. These include anchoring the buildings, elevating them out of the flood plain, and flood proofing the buildings and utilities. Additionally, this section requires:

> *Encroachments, including fill, new construction, substantial improvements, and other development are prohibited unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge. If no floodway sources are designated, the registered professional engineer or architect shall demonstrate that the cumulative effect of all encroachment in the floodplain does not increase the base flood elevation (BFE) by more than one (1) foot.*

Nonetheless, there remains the potential that flooding could occur as a result of building construction on Lots 1, 2 and 15, given their location in the FEMA floodplain. Additional studies, including a Conditional Letter of Map Revision (CLOMR), would be required prior to issuance of a Building Permit or Grading Permit, whichever occurs first, to ensure that no damage would be caused to the structures proposed in the floodplain and flood waters would not be diverted so as to cause damage to neighboring properties. Impacts related to construction within the floodplain would be potentially significant.

Additionally, the project would take its access from Chesebro Road. This road is currently within the floodplain and could potentially flood. This would make site access difficult. This is considered a potentially significant impact.

Mitigation Measures. The following mitigation measure is required for Phase 2.

HWQ-5(a) **Floodplain.** Prior to development of Lots 1, 2, or 15 as part of Phase 2, the applicant shall be responsible for preparing documents required to conduct work in the FEMA floodplain, such as a Conditional Letter of Map Revision (CLOMR), and other items required by the City Public Works Director/City Engineer. Such documents shall be submitted to the City Public Works Department for review and acceptance prior to issuance of a building permit or grading permit, whichever occurs first.

HWQ-5(b) **Access.** Prior to issuance of a grading permit for development of Phase 2, the applicant must submit for review and approval by the City Public works Department/City Engineer an access plan for the site detailing how access would be maintained under flood conditions. This could include sand bags or berms along the northern side of the road or a hydrology study proving that the road is not in the 100-year floodplain.

Significance After Mitigation. Impacts would be less than significant after mitigation.

c. Cumulative Impacts. The development of related projects would increase the impervious surface area in local watersheds, thereby potentially increasing the amount of surface water entering area drainages. Of the nine planned and pending projects in the area (see Table 3-1 in Section 3.0, *Environmental Setting*), projects six and seven are the closest at 0.6 miles north and 0.3 miles west, respectively. This could cumulatively contribute to the risk of flooding downstream of the proposed project site. However, the Los Angeles County Flood Control District (LACFCD) requires the proposed project to include on-site drainage infrastructure to ensure that receiving water peak flows would not be increased above pre-development volumes. Therefore, the proposed project would not increase off-site stormwater flow because the proposed stormwater system would limit flows to pre-development levels. Therefore, the project's contribution to potential cumulative surface drainage flooding impacts would be less than significant.

Storm runoff concentrations of oil, grease, heavy metals, and debris increase as the amount of urban development increases in a watershed, as these pollutants are present as a result of human activities in urban areas. SUSMP and SWPPP BMPs are designed to address both the proposed project level impacts and cumulative project impacts of regional development. Given proper design and implementation of SUSMP and SWPPP BMPs, the proposed project's contribution to cumulative surface and ground water quality impacts would be less than significant.

5.0 OTHER CEQA REQUIRED DISCUSSIONS

5.1 GROWTH INDUCING EFFECTS

The *CEQA Guidelines* require a discussion of a proposed project's potential to foster economic or population growth, including ways in which a project could remove an obstacle to growth. Growth does not necessarily create significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects. The proposed project's growth-inducing potential is therefore considered significant if it could result in significant physical effects in one or more environmental issue areas. An example of when an economic effect might create a physical change would be when economic growth in one area creates blight conditions elsewhere by causing existing competitors to go out of business and, consequently, the buildings to be left vacant.

5.1.1 Economic and Population Growth

The project would include the development of 22 acres of a 71-acre project site. The first phase is proposed at this time and would include trails, fencing, drainage improvements with debris basins, a private road, and grading of Lot 1. The second phase, which would be developed at a currently unknown date, would include 15 single family residences. The City of Agoura Hills has an average of 2.8 residents per household (California Department of Finance, 2014). The proposed project would house approximately 42 residents. Given the City's estimated population of 20,625 (California Department of Finance, 2014), this represents an increase in population of 0.2 percent. The trails would not require dedicated employees, instead they would be maintained by existing employees. Therefore, the proposed project would not be considered growth-inducing as it would not substantially increase long-term population growth. The project would also generate temporary jobs during the construction phases of the project. Typically, these jobs are filled by people who live in the area due to their temporary nature.

The project would not have economic or social effects that would result in adverse physical changes or deterioration of the surrounding area, as the project site is currently undeveloped. The project site would preserve about 49 acres of the 71-acre site as permanent open space. Further, no existing housing or population would be displaced, given that the site is vacant.

5.2 REMOVAL OF OBSTACLES TO GROWTH

The proposed project would be located adjacent to a developed area on the west side of Agoura Hills. Major improvements to water, sewer, and circulation systems and drainage connection infrastructure would not be needed for this development as these utilities are already located along Chesebro Road right-of-way. Only a short extension would be required to bring the water line further north, to the project site. Furthermore, the project would not facilitate growth on nearby lands as the project would preserve approximately 49 acres of the project site, east and south of the area proposed for development, as permanent open space with no development of buildings allowed. The project includes transferring the open space areas to a public entity for permanent preservation. The existing open space parcel to the north of the site is owned by the State of California and managed by the Mountains Recreation and Conservation Area. This

parcel is used for state park access. Consequently, adjacent vacant lands would not only prevent additional access to nearby undeveloped parcels, but would be protected from additional urban development. Therefore, the project would not remove an obstacle to growth.

5.3 IRREVERSIBLE ENVIRONMENTAL EFFECTS

The *CEQA Guidelines* require that EIRs evaluating projects involving amendments to public plans, ordinances, or policies contain a discussion of significant irreversible environmental changes. CEQA also requires decisionmakers to balance the benefits of a proposed project against its unavoidable environmental risks in determining whether to approve a project. This section addresses non-renewable resources, the commitment of future generations to the proposed uses, and irreversible impacts associated with the proposed project.

Conversion of the project site from vacant open space with an informal multi-use trail to a single family residential development with trails and dedicated open space would likely result in a long-term commitment of the site to an increased level of use. These actions would alter the built environment in ways that have been found in this EIR to be less than significant or less than significant with mitigation incorporated. The project would involve the use of building materials and energy, some of which are non-renewable resources. Consumption of these resources would occur with any development in the region and are not unique to the project. Resources that would be consumed as a result of project implementation include water, electricity, and fossil fuels during construction and operations; however, the amount and rate of consumption of these resources would not result in significant environmental impacts or the unnecessary, inefficient, or wasteful use of resources. Compliance with applicable building codes, as well as City policies in the General Plan, and the mitigation measures identified in this EIR would ensure that natural resources are conserved to the extent feasible.

CEQA also requires decision makers to balance the benefits of a proposed project against its unavoidable environmental risks in determining whether to approve a project. The analysis contained in this EIR concludes that the proposed project would not result in any Class I, significant and unavoidable, impacts.

6.0 ALTERNATIVES

Pursuant to *CEQA Guidelines* Section 15126.6(a), an EIR must describe a range of reasonable alternatives to the project, or to the location of the project, that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation.

Alternatives to the proposed project that would reduce significant impacts are listed below and Table 6-1 provides a summary comparison of the development characteristics of each as compared with the proposed project.

- Alternative 1 – No Project
- Alternative 2 – Reduced Residential
- Alternative 3 – North Area Plan Buildout
- Alternative 4 – Clustered Development

Table 6-1
Project Alternative Comparison

Feature	Proposed Project	Alternative 1: No Project	Alternative 2: Reduced Residential	Alternative 3: North Area Plan Buildout	Alternative 4: Clustered Development
Residential Lots	15 single-family lots (approx. 1.5 acres/unit) 22 acres	None	8 single-family lots (approx. 1.5 acres/unit) 12.5 acres	14 single-family lots (5 acres/unit) 71 acres	15 single-family lots (<1acre/unit) 13 acres
Open Space	49 acres	None	58.5 acres	None	58 acres

Each of the various alternatives is described and analyzed below. This section also evaluates the feasibility of similar development at alternative locations and, as required by CEQA, includes a discussion of the "environmentally superior alternative" among those studied.

6.1 NO PROJECT ALTERNATIVE

This alternative assumes that the proposed project would not be developed and that the site would remain in its current vacant condition. The No Project alternative would avoid the proposed project's environmental impacts in every issue area studied in the EIR. Therefore, no impact would occur under this alternative and overall environmental impacts would be lower than those of the proposed project. However, this alternative does not meet any of the project objectives except for potentially conserving open space, nor would it preclude the site from future development under a different proposal.

6.2 REDUCED RESIDENTIAL ALTERNATIVE

6.2.1 Description

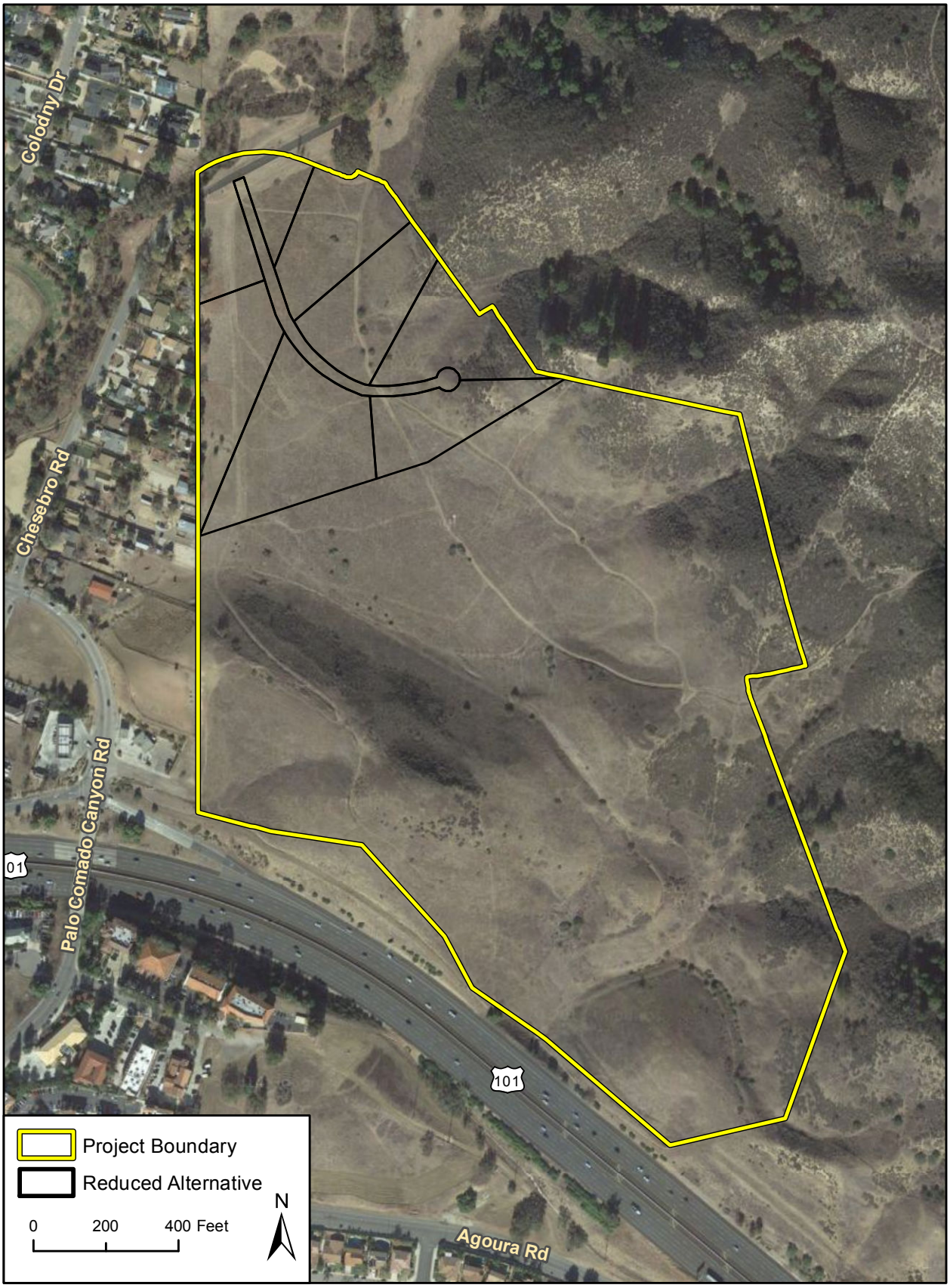
Under the Reduced Residential Alternative, the residential component of the subdivision would be reduced to approximately 50 percent of the proposed project size with eight single-family residential lots on approximately 12.5 acres. Under this alternative the eight single-family lots would be zone RV Residential Very Low Density (RV) (<2 DU/acre), which is the same as under the proposed project. Additionally, under the Reduced Residential Alternative, the remaining portion of the site (about 58.5 acres) would be zoned for permanent preservation of open space. Figure 6-1 shows a potential way the site could be developed under this alternative. No plans have been submitted that would constitute the Reduced Residential Alternative. This figure has been included solely for reference. All other design features would remain relatively consistent with the currently proposed project, including:

- Construction of a private access road through the site, including rolled curb
- Trails, fencing and drainage improvements within the private road right-of-way
- Relocation/construction of an existing multi-use informal trail located partially within and partially outside of the site boundaries to the east
- Earthen and rock drainage swale improvements and debris basins for runoff
- An equestrian trail and fence along the western side of the site, adjacent to existing homes
- Extension of utilities under the proposed private road from existing water and sewer lines under Chesebro Road

6.2.2 Impact Analysis

a. Aesthetics. This alternative would include the development of eight single family residential units compared to the 15 included in Phase 2 of the proposed project. This would reduce total building massing and footprint on the project site, as well as related infrastructure (road and drainage improvements), which would reduce the overall visual impacts of the project site from scenic vantage points by preserving more open space and by limiting development overall. The project density would remain approximately the same. Further, as this alternative would include less development, it would have incrementally less light and glare impact as compared with the proposed project.

This alternative's overall aesthetic impact would be incrementally lower than that of the proposed project. Nevertheless, mitigation measures AES-1 and AES-3 would apply to this alternative as well since the drainage improvements would still be required. Additionally, compliance with City standards and requirements would also reduce the proposed project's impact to a less than significant level. Therefore, this alternative would not reduce or avoid a significant impact of the proposed project.



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Alternative 2 - Potential Reduced Project Site Plan Figure 6-1

b. Biological Resources. This alternative would avoid affecting approximately half of the non-native grassland that would be impacted by the proposed project, or about five acres. While the amount of habitat affected would be incrementally less, the magnitude of impacts to biological resources would remain the same as the proposed project. Impacts to locally important wildlife species (Impact BIO-1 and Impact BIO-2) would remain Class II, less than significant with mitigation incorporated, and mitigation measures BIO-1 (a-c) and BIO-2 (a-b) would apply. This alternative would also encroach on the northern potential jurisdictional drainages; therefore, Mitigation Measure BIO-4 would still apply. Impacts to oak trees (BIO-6) would remain Class II, less than significant with mitigation incorporated, and Mitigation Measure BIO-6 would apply.

Other impacts related to biological resources would be the same as those of the proposed project: Class III, less than significant to sensitive plant communities (BIO-3) and Class III, less than significant to wildlife movement or migration (BIO-5).

c. Geology and Soils. Impacts related to geology and soils would be similar to those identified for the proposed project, as this alternative would involve similar types of development on the same site. Class II, less than significant with mitigation incorporated, impacts would occur with respect to ground shaking, fault rupture, liquefaction, slope stabilization in the hillsides around the development pad, differential soil settlement, and expansive soils (Impacts GEO-1, GEO-4, GEO-5, and GEO-6). Mitigation measures GEO-1 (a, b), and GEO-6 would apply.

d. **Hazards/Hazardous Materials**. Impacts related to hazards and hazardous materials would remain the same as those of the proposed project, given that this alternative would be in the same general location. The proximity of the open and closed LUST sites (Impact HAZ-1) would be the same and impacts would remain Class III, less than significant. Additionally, impacts associated with the contamination related to the Calabasas Landfill (Impact HAZ-2) would remain Class III, less than significant due to the levels of uranium found in the groundwater testing.

f. Hydrology and Water Quality. This alternative would incrementally reduce the amount of impervious surfaces that would be placed on the site due to the elimination of 7 of 15 residences and reduction in the overall building footprint by about five acres. This would reduce the amount of runoff that would be produced by the project. Impacts related to site runoff (Impact HWQ-4) would be Class III, less than significant, the same as with the proposed project. In addition, sedimentation/erosion, water quality, and stormwater system capacity impacts would remain Class III, less than significant, the same as with the proposed project, due to compliance with NPDES general construction permit requirements.

6.2.3 Comparison with Project Objectives

Alternative 2 – Reduced Residential Alternative would meet the majority of the proposed project's objectives. However, due to the reduced number of residential lots that would be developed, this alternative would be less financial viable than the proposed project.

6.3 NORTH AREA PLAN BUILDOUT ALTERNATIVE

6.3.1 Description

Under the North Area Plan Buildout Alternative, development on the project site would be consistent with what is designated for the site under Los Angeles County's Santa Monica Mountains North Area Plan. This would allow for 14 single-family residential lots at a density of 5 acres/1 dwelling unit (Mountain Lands, N5) over the entire site. This could result in a more dispersed development over the site with no designated open space. Building footprints for individual residences could be similar to those of the proposed project. Figure 6-2 shows a potential way the site could be developed under this alternative. All other components of the project would be similar, including:

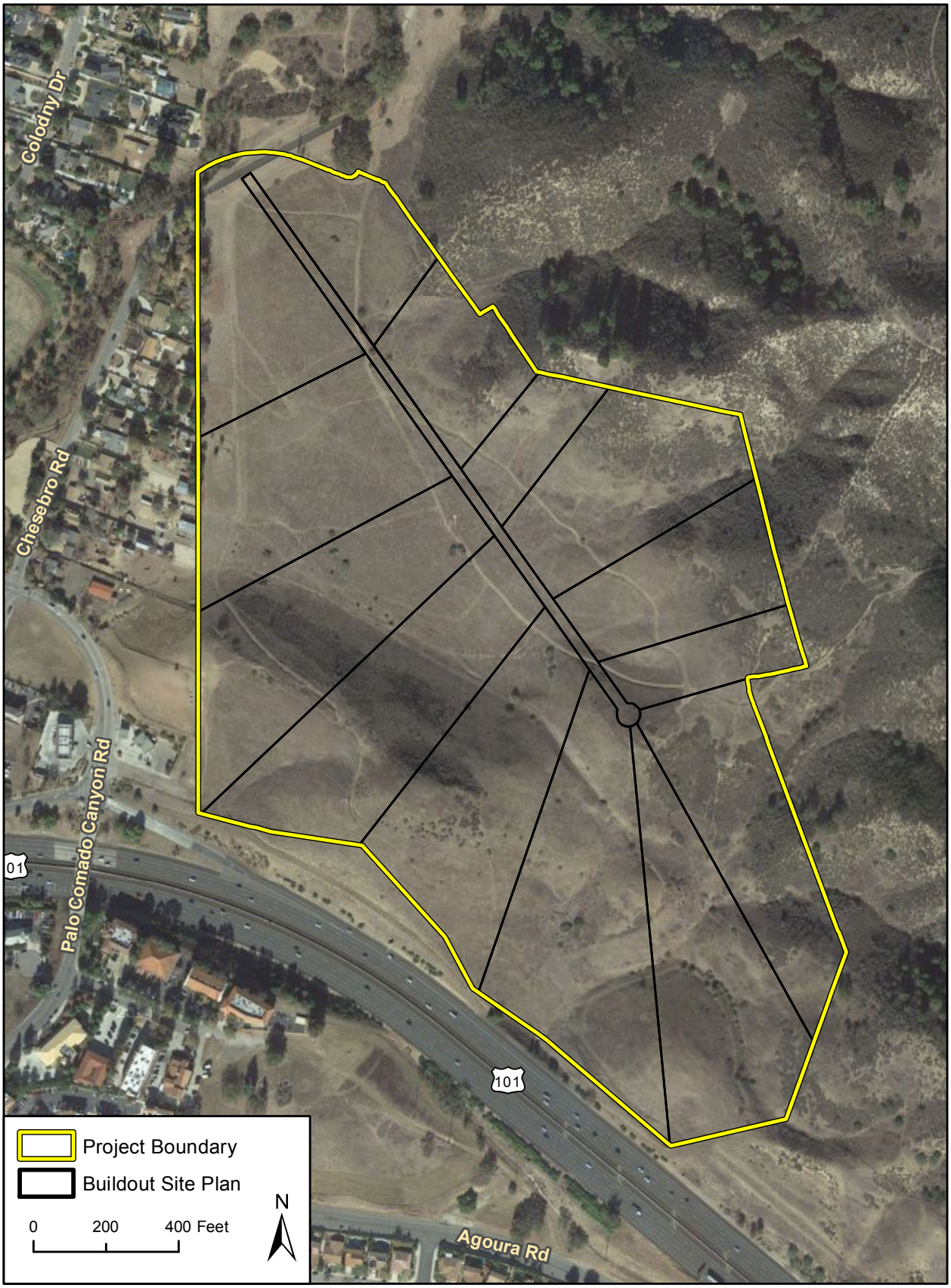
- Construction of a private access road through the site, including rolled curb
- Trails, fencing and drainage improvements within the private road right-of-way
- Relocation/construction of an existing multi-use informal trail located partially within and partially outside of the site boundaries to the east
- Earthen and rock drainage swale improvements and biofiltration basins for runoff
- An equestrian trail and fence along the western side of the site, adjacent to existing homes
- Extension of utilities under the proposed private road from existing water and sewer lines under Chesebro Road

Given the dispersed nature of the development in this alternative, substantially larger facilities would be needed, including additional roads, drainage swales, debris detention basins, and utility extensions.

6.3.2 Impact Analysis

a. Aesthetics. This alternative would have one less residence than the proposed project with 14 residences under the North Area Plan Buildout Alternative compared to 15 under the proposed project. Under this alternative, residences and associated infrastructure (drainage facilities, roads, fencing, trails) would be dispersed through the project site and possibly on hillsides.

This alternative would increase the distance between on-site residences and the adjacent residences on the east side of Chesebro Road, reducing the overall view blockage from these residences compared to the proposed project. However, unlike the proposed project, residences and infrastructure could be visible from U.S. 101 and more visible than the proposed project from the Santa Monica National Recreation Area, which would result in a Class I, significant and unavoidable impact to scenic vistas, compared to the Class III impact from the proposed project.



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Alternative 3
Potential North Area Plan Buildout Site Plan

Figure 6-2

Grading and development of the entire site would substantially alter the visual character of the property and may affect more trees, including oaks, and other visual features located throughout the site, as well as alteration of hillsides. The appearance of density could be less than the proposed project and more rural looking, since the homes would be spread out. However, this dispersal could also give the appearance of a larger area of development, and less open space that is free from development. It is likely that debris detention basins would be required in this alternative, so Impact AES-1 regarding basin fencing would still apply and Mitigation Measure AES-1 required. Impact AES-3 related to design of storm drain outlet structures could still apply to this alternative, and if so, Mitigation Measure AES-3 would still be necessary. Overall, given the severity of grading hillsides and removing other potentially sensitive visual resources within the hillsides there would likely be a Class I, significant and unavoidable impact to visual character, compared to the Class II impact from the proposed project.

With approximately the same number of residences under this alternative and North Area Plan policies to minimize the effects of lighting; impacts associated with light and glare would remain Class III, less than significant, though site lighting would generally be visible from a broader area than under the proposed project.

b. Biological Resources. This alternative would have greater impacts to biological resources than the proposed project. While approximately the same number of residences would be built on the project site, they would be more dispersed throughout the site, which would require more grading and disturbance for roads. With single family residences more dispersed throughout the site, there would be an increased potential for the development to affect a greater amount of habitat types and species, such as oaks, riparian habitat, and ephemeral streams, than under the proposed project. Additionally, none of the project site would be rezoned for permanent preservation of open space as in the proposed project. Overall impacts to biological resources would be greater than those of the proposed project, but would be Class II, less than significant with mitigation incorporated. All mitigation measures for the proposed project would apply and mitigation would need to be added for disturbance and reduction to sensitive plant communities. This mitigation could include avoidance of the areas that contain sensitive plant communities.

c. Geology and Soils. Impacts related to geology and soils would be similar to those identified for the proposed project as this alternative would occur on the same site. Impacts would be Class II, less than significant with mitigation incorporated. The impacts would be ground shaking, liquefaction, slope stabilization in the hillsides around the development pad, differential soil settlement, and expansive soils (Impacts GEO-1, GEO-4, GEO-5, and GEO-6). However, additional slope stability measures may be required with development occurring throughout the project site instead of primarily within the valley floor, which would require slope cuts into the hillsides and more grading than the proposed project. This alternative may also result in more development in expansive soils. It may also bring development into areas of liquefaction. Therefore, further geotechnical analysis and mitigation would be required than what is proposed under Mitigation Measure GEO-1(a and b). Mitigation Measure GEO-6 would also apply. Impact GEO-2, less than significant impacts to fault rupture, would be the same as for the proposed project, since this alternative would not bring development closer to a fault.

d. **Hazards/Hazardous Materials**. Impacts related to hazards and hazardous materials would be the same as those of the proposed project. The proximity of the open and closed LUST sites (Impact HAZ-1) would be the same and impacts would remain Class III, less than significant. Additionally, although this alternative would place some housing units closer to the landfill, impacts associated with the Calabasas Landfill (Impact HAZ-2) would remain Class III, less than significant, due to the levels of uranium that were found in the groundwater testing onsite.

e. Hydrology and Water Quality. This alternative would have hydrology/water quality impacts (Impacts HWQ-1, HWQ-2, HWQ-3 and HWQ-4) that would be similar to, but slightly greater than, those of the proposed project because there would be no dedicated open space and there would be more overall grading and impervious surfaces. Due to the increase in disturbance area, the potential for this alternative to result in erosion, sedimentation, or stormwater runoff during construction would be higher. Nevertheless the impacts would be, Class III, less than significant, the same as for the proposed project due in part to compliance with City and NPDES requirements. The operational phase of this alternative would have incrementally greater impacts than those identified for the proposed project because overall stormwater runoff volumes would be incrementally greater. Nevertheless, as with the proposed project, this alternative would comply with current requirements related to control of runoff and pollutants, which would reduce impacts to a Class III, less than significant, level. Impact HWQ-5 regarding floodplain would apply to this alternative as well, given the location of the alternative in the same floodplain as the proposed project. Impacts from the alternative could be comparable to that of the proposed project, depending on the size of the lots and potential to locate structures in the floodplain. The alternative's impacts would be less than significant with mitigation. Mitigation Measure HWQ-1 would apply.

6.3.3 Comparison with Project Objectives

Alternative 3 – North Area Plan Buildout Alternative would meet the majority of the proposed project's objectives. Under this alternative the site would not be annexed into the City; therefore, this alternative would not meet the objective of annexing the site into the City and ensuring that development would be consistent with the City's General Plan and Municipal Code. This alternative would also not meet the objective of conserving open space since under this alternative, the entire site would be developed and no parcels would be available for open space conservation.

6.4 ALTERNATIVE 4: CLUSTERED DEVELOPMENT

6.4.1 Description

Under the Clustered Development Alternative, the single family residential lots would be located in a cluster on the project site near the entrance under the proposed project. The residential component would have the same number of single-family residential lots as the proposed project, but in a greater density with lots at 1-2 dwelling units per acre with 15 single family lots developed on 13 acres. Under this alternative the residential component would be zoned Low Density-Residential (20,000 square feet minimum lot size per dwelling unit) (RL). The remainder of the project site, approximately 58 acres, would be zoned for permanent

preservation of open space. All other components of the project would be the same as the proposed project including:

- Construction of a private access road through the site, including rolled curb
- Trails, fencing and drainage improvements within the private road right-of-way
- Relocation/construction of an existing multi-use informal trail located partially within and partially outside of the site boundaries to the east
- Earthen and rock drainage swale improvements and biofiltration basins for runoff
- An equestrian trail and fence along the western side of the site, adjacent to existing homes
- Extension of utilities under the proposed private road from existing water and sewer lines under Chesebro Road

Figure 6-3 shows a diagram of how this alternative could be developed on the site. No plans have been provided by the applicant that would involve development of the site in a clustered manner. This figure has been included for reference.

6.4.2 Impact Analysis

a. Aesthetics. This alternative would have an approximately 50 percent smaller development footprint than the proposed project with all single-family residences further congregated and located near Chesebro Road adjacent to existing single family residential development along the east side of Chesebro Road. This would reduce the overall visual impacts of the project site from the scenic vista vantage point of the National Recreation Area by increasing open space preservation by 14 acres and reducing the footprint of development, and, like the proposed project, the developed portion of the site would not be visible from U.S. 101. Due to the 50 percent smaller development footprint, overall scenic vista impacts would be less than those of the proposed project. The alternative would result in the same level of impact as the proposed project, a Class II, less than significant impact with mitigation. This alternative would still require a debris detention basin with fencing (Impact AES-1). Mitigation Measure AES-1 would continue to be required for basin fencing.

The increase in density would result in a more urban development pattern adjacent to open space, and would provide less of a visual transition to adjacent open space than the proposed project. The residential density would be similar, however, to the existing homes along Chesebro Road, near the proposed project site. Overall, the alternative would have the same or less impacts with regard to visual character and compatibility. Impact AES-3 related to design of storm drain outlet structures, however, could still apply to this alternative, and if so, Mitigation Measure AES-3 would still be necessary. Therefore, impacts to visual quality would continue to be Class II, less than significant with mitigation.

With the same number residential units as the proposed project, impacts related to light and glare would be the same as the proposed project, Class III, less than significant.

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Alternative 4
Potential Clustered Development Site Plan

Figure 6-3

b. Biological Resources. This alternative would avoid affecting approximately half of the non-native grassland that would be impacted by the proposed project and impacts to approximately five acres non-native grassland would be avoided. While the amount of habitat affected would be less, the overall magnitude of impacts to biological resources would remain the same as the proposed project. Impacts to locally important wildlife species (Impact BIO-1 and Impact BIO-2) would remain Class II, less than significant with mitigation incorporated, and mitigation measures BIO-1 (a-c) and BIO-2 (a-b) would apply. This alternative would also encroach on the northern potential jurisdictional drainages; therefore, mitigation measure BIO-4 would still apply. Impacts to oak trees (BIO-6) would remain Class II, less than significant with mitigation incorporated, and mitigation measure BIO-6 would apply. All other impacts related to biological resources would be the same as the proposed project: Class III, less than significant to sensitive plant communities (BIO-3) and Class III, less than significant to wildlife movement or migration (BIO-5).

c. Geology and Soils. Impacts related to geology and soils would be similar to those identified for the proposed project as this alternative would occur on the same, although smaller, portion of the site with Class II, significant but mitigable impacts related to ground shaking (Impact GEO-1).

Impacts related to slope stabilization of hillside areas adjacent to proposed residential areas (Impact GEO-4) on the valley floor would remain the same, Class II, less than significant with mitigation incorporated. While less grading would be required for building pads, overall impacts related to differential soil settlement and expansive soils would remain the same and would be Class II, less than significant with mitigation incorporated (Impacts GEO-5 and GEO-6). As with the proposed project, impacts from fault rupture or liquefaction would be Class II, less than significant. Mitigation measures GEO-1 (a-b) and GEO-6 would apply.

d. **Hazards/Hazardous Materials**. Impacts related to hazards and hazardous materials would remain the same as those of the proposed project. The proximity of the open and closed LUST sites to the project site (Impact HAZ-1) would be the same and impacts would remain Class III, less than significant. Additionally, impacts from the landfill adjacent to the site (Impact HAZ-2) would remain Class III, less than significant. This is due to the levels of uranium that were found in the groundwater testing onsite.

e. Hydrology and Water Quality. This alternative would have similar, but slightly lower impacts related to hydrology and water quality compared to the proposed project because development would be clustered, leaving more open permeable space and less runoff and associated pollutants. The potential for this alternative to result in erosion/sedimentation, and water quality concerns during construction would still be Class III, less than significant, the same as the proposed project due to compliance with City and NPDES requirements (see Impact HWQ-1). The reduction in runoff would also reduce the use of stormwater drainage systems in the area. Impact HWQ-5 regarding floodplain would apply to this alternative as well, given the location of the alternative in the same floodplain as the proposed project. Impacts from the alternative would be comparable to that of the proposed project, depending on the size of the lots and potential to locate structures in the floodplain. The alternative's impacts would be less than significant with mitigation. Mitigation Measure HWQ-1 would apply.

6.4.3 Comparison with Project Objectives

Alternative 4 – Clustered Development Alternative would meet the majority of the proposed project's objectives. However, under this alternative the site would be developed with smaller residential lots. This would not meet the project's objective of providing the framework for large lot future home development, and may not meet the financial viability objectives.

6.5 ALTERNATIVES CONSIDERED BUT REJECTED

An alternative involving the previously entitled private day school (such as Heschel West Day School) was also considered but rejected. It was determined that development of a day school within the valley floor the project site would increase potential impacts related to aesthetics with an increased building footprint and a parking lot. Impacts related to traffic and noise would be greater with additional traffic generated by employees and students traveling to and from the school. The school would also generate additional noise impacts in its daily operations as compare to 15 single family residential units. With a greater portion of the project site being graded, impacts would also be greater in the areas of biological resources, geology, and hydrology. Therefore, with the increased impacts in many issues areas, this alternative has been rejected and further consideration is not warranted.

6.6 ALTERNATIVE SITE ANALYSIS

Several criteria form the basis of whether alternative sites need to be considered in detail. These criteria take the form of the following questions:

1. Could the size and other characteristics of another site physically accommodate the project?
2. Is another site reasonably available for acquisition?
3. Is the timing of carrying out development on an alternative site reasonable for the applicant?
4. Is the project economically feasible on the alternative site?
5. Is the land use designation of the alternative site compatible with the project?
6. Does the lead agency have jurisdiction over the alternative site?
7. Are there any social, technological, or other factors that may make the alternative site infeasible?

Due to the nature of the project, which involves the annexation of unincorporated land from the County of Los Angeles into the City of Agoura Hills, there are no alternate project sites. The project site is located adjacent to the City of Agoura Hills and owned by the City of Agoura Hills, and the City does not own or reasonably have access to other sites that could accommodate the proposed project. Therefore, although development of the proposed uses at another site would be physically feasible, an analysis of an alternative that considers development of the proposed project on another site is not warranted.

6.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

As required by CEQA, this section identifies the environmentally superior alternative. Alternative 1, the No Project Alternative, would avoid all environmental impacts of the proposed project. Therefore, this alternative would be environmentally superior overall. However, this alternative would not meet primary objectives of the proposed project, which include:

- Develop a project that is aesthetically and functionally compatible with adjacent uses and the environment.
- Provide a recreational trails area for the Agoura Hills equestrian community.
- Conserve open space in compliance with the Agoura Hills General Plan.
- Provide the framework for large lot future home development with freeway access consistent with the character of Old Agoura.
- Create a financially viable project for the City of Agoura Hills.
- Annex the project site into the City of Agoura Hills to ensure that any development would be consistent with the City's General Plan and Municipal Code, and that enforcement of building, planning and environmental standards will be handled by the City's staff.
- Sell individual residential lots to residential developers and assure the site would not be developed as a school.

Table 6-2 illustrates an impact comparison of the proposed alternatives and the proposed project. Alternatives 2 and 4 would reduce the impacts to biological resources, geology and soils, and hydrology and water quality due to the fact that these two alternatives would reduce the impacted area to approximately 13 acres. Under these two alternatives, the remaining project area would become part of the open space area and would not be impacted. Alternative 3 would be inferior to the proposed project as the aesthetic, biological, geological, and hydrologic/water quality impact of spreading out the development would be greater.

Based on the preceding discussion and the information summarized in Table 6-2, Alternatives 2 and 4 would have impacts similar to those of the proposed project. As stated in the discussion above, these two alternatives would incrementally reduce some of the impacts of the project, but would not eliminate any significant impacts.

Table 6-2
Impact Comparison of Alternatives

Issue	Proposed Project Impact Classification	Alternative 1: No Project	Alternative 2: Reduced Residential	Alternative 3: North Area Buildout Plan	Alternative 4: Clustered Development
Aesthetics	III	+	=	-	=
Biological Resources	II	+	+	-	+
Geology and Soils	II	+	+	-	+
Hazards and Hazardous Materials	III	+	=	=	=
Hydrology and Water Quality	II	+	+	-	+

+ Superior to the proposed project (reduced level of impact)
- Inferior to the proposed project (increased level of impact)
= Similar level of impact to the proposed project

7.0 REFERENCES AND PREPARERS

7.1 REFERENCES

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7.2 LIST OF PREPARERS

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Katie Stanulis, Production Coordinator

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Appendix A

Initial Study and Notice of Preparation
Comment Letters

City of Agoura Hills

Agoura Equestrian Estates

Draft Initial Study

May 2014

rincon

Environmental Scientists Planners Engineers

Agoura Equestrian Estates

Draft
Initial Study

Prepared by:

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Planning and Community Development Department
30001 Ladyface Court
Agoura Hills, California 91301
Contact: Allison Cook, Principal Planner

Prepared with the assistance of:

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May 2014

This report is printed on 30% recycled paper with 10% post-consumer content.

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INTRODUCTION

This Initial Study has been prepared for the Agoura Equestrian Estates Project ("the project") in compliance with the California Environmental Quality Act (CEQA) Statute and Guidelines (Public Resources Code Section 21000 et. seq. and California Code of Regulations Title 14, Chapter 3 Sections 15000–15387, respectively. The proposed project involves a subdivision for 15 residential single-family lots on the former Heschel school site in unincorporated Los Angeles County. The Initial Study addresses the potential environmental effects resulting from the proposed development.

LEGAL AUTHORITY AND FINDINGS

This Initial Study has been prepared in accordance with the *California Environmental Quality Act* (*CEQA) Guidelines* and relevant provisions of CEQA of 1970, as amended. The purposes of an Initial Study are:

(1) To provide the Lead Agency with the necessary information to decide whether to prepare an Environmental Impact Report (EIR) or a Mitigated Negative Declaration;

(2) To enable the Lead Agency to modify a project, mitigating adverse impacts, thus avoiding the need to prepare an EIR; and

(3) To provide sufficient technical analysis of the environmental effects of a project to permit a judgment based on the record as a whole, that the environmental effects of a project have been adequately mitigated.

IMPACT ANALYSIS AND SIGNIFICANCE CLASSIFICATION

The following sections of this Initial Study provide discussions of the possible environmental effects of the proposed project for specific issue areas that have been identified on the CEQA Initial Study Checklist. For each issue area, potential effects are discussed and evaluated.

A "significant effect" is defined by Section 15382 of the CEQA Guidelines as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by a project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." According to the *CEQA Guidelines*, "an economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant."

Following the evaluation of each environmental effect determined to be potentially significant is a discussion of mitigation measures and the residual effects or level of significance remaining after the implementation of the measures. In those cases where a mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed as a residual effect.

INITIAL STUDY

PROJECT TITLE

Agoura Equestrian Estates

LEAD AGENCY AND CONTACT PERSON

City of Agoura Hills
30001 Ladyface Court
Agoura Hills, CA 91301
Contact: Allison Cook, Principal Planner/Environmental Analyst

PROJECT PROPONENT

Equine Estates LLC (Applicant)
Fortune Realty (Manager)
Benjamin Efraim (contact)

PROJECT SITE CHARACTERISTICS

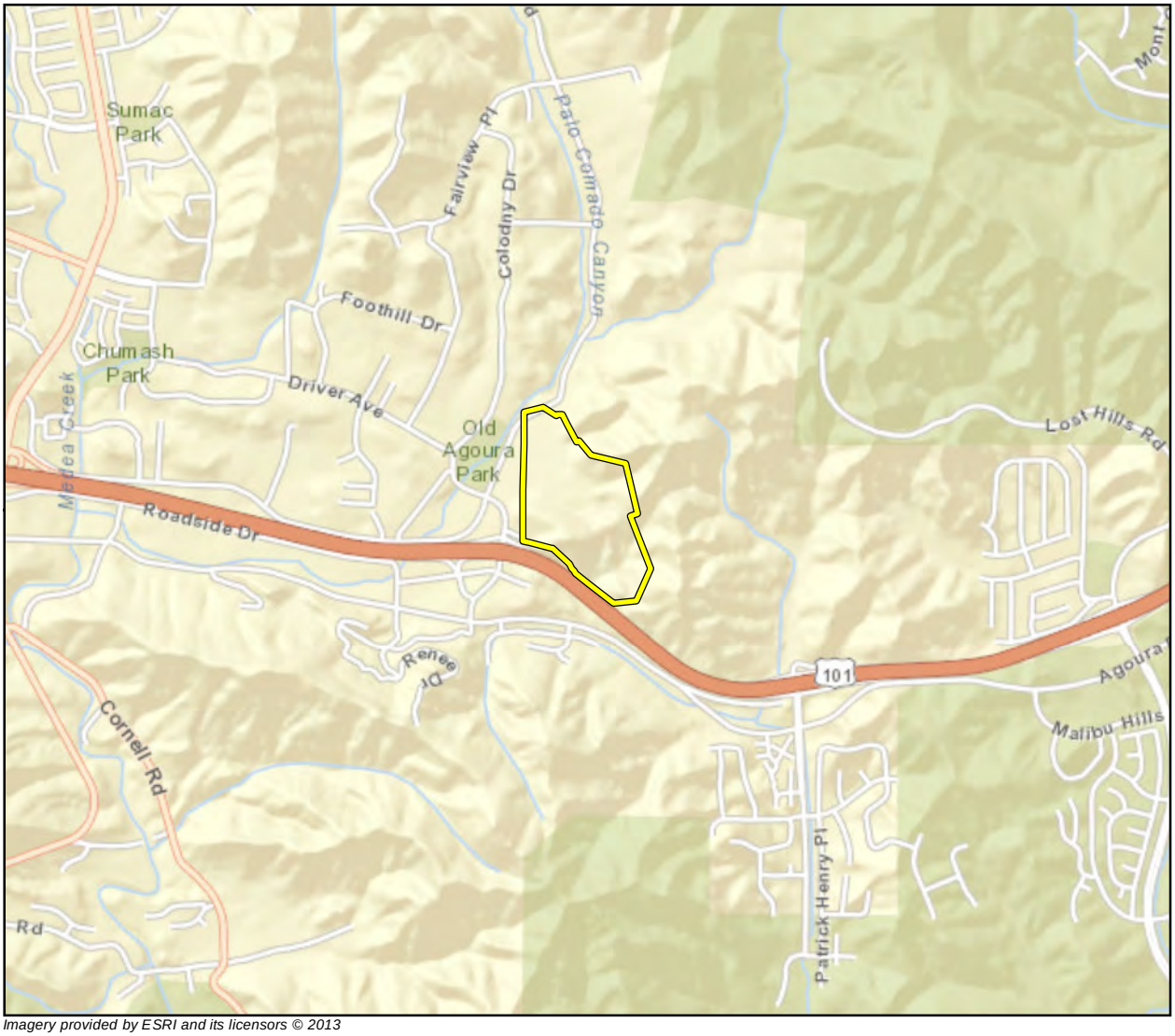
Location: The project site is located on the north side of U.S. Highway 101, adjacent to the eastern boundary of the City of Agoura Hills. Specifically, the site is located east of Chesebro Road, in a canyon formed by a series of ridgelines that bound the proposed development on the north, east and southern border. The project site, which is currently vacant, measures approximately 71 acres. Figure 1 illustrates the location of the project site in its regional context and Figure 2 shows the location of the project site adjacent to the City of Agoura Hills.

Assessor Parcel Numbers: The Agoura Equestrian Estates project site is identified by Assessor's Parcel Number (APN) 2052-009-270 (71.14 acres) and APN 2055-010-270 (0.25 acre).

Existing General Plan Designation: The project site is currently outside of the City of Agoura Hills city limit. The City owns the parcel, but the parcel is located within unincorporated Los Angeles County. The existing land use designation in the County's North Area Plan (NAP) is N5 Mountain Lands (maximum residential density of one dwelling per 5 acres). The Agoura Equestrian Estates project involves annexation of the site to the City of Agoura Hills.

Existing Zoning: The project site is currently zoned A-1-5 (Light Agricultural, maximum residential density of one dwelling per 5 acres) in the County of Los Angeles.

Surrounding Land Uses: The project site is bordered on the west by low density residential homes in the Old Agoura community of the City of Agoura Hills, with some commercial services and high density residential adjacent to the U.S. Highway 101 corridor in the City of Agoura Hills. To the north and the east, the project site is surrounded by the Santa Monica Mountains open space owned by the State of California. The southern portion of the project site is bounded by U.S. Highway 101.



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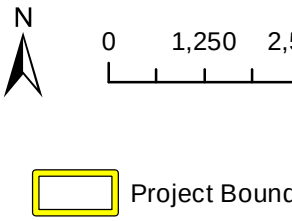

Project Boundary

Regional Location

Figure 1

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Site Location

Figure 2

DESCRIPTION OF THE PROJECT

The proposed Agoura Equestrian Estates project involves subdivision of the site into seventeen lots, including fifteen residential single-family lots; one lot (APN 2055-010-270) for permanent preservation of open space (to be zoned OS-DR-OA-EQ); and another lot for permanent preservation (APN 2052-009-270) (to be zoned OS-DR-OA-EQ). The project site is located on the former proposed Heschel West Day School site in unincorporated Los Angeles County. The proposed development also includes the construction of a private access road through the site, including rolled curb, trails, fencing and drainage improvements within the private road right-of-way, the relocation/construction of an existing multi-use informal trail located partially within and partially outside of the site boundaries to the east; earthen and rock drainage swale improvements and two vegetated biofiltration basins for runoff (with an option to place these basins underground or replace them with underground pipes); an equestrian trail and fence along the western side of the site, adjacent to the existing homes; and extension of utilities under the proposed private road from existing water and sewer lines in Chesebro Road, to the south of the site. No landscaping is proposed as part of the subdivision and drainage/utilities/road improvements. Although this Initial Study analyzes the impacts of future residential development, the actual approval for physical construction of the residences is not currently proposed. Individual residential construction would be subject to separate application review and permitting when such development is proposed in the future.

The entire project site encompasses approximately 71 acres: 23 acres for development, and 48 acres for preservation as open space. The site is currently owned by the City of Agoura Hills, and the project applicant is proposing to buy the site from the City to subdivide and annex it to the City, along with APN 2055-010-901 and a portion of the Caltrans ROW along U.S. 101. These latter two areas are proposed for annexation per initial discussion with the Los Angeles County Local Area Formation Commission (LAFCO) regarding the proper borders of the land annexation. The project site zoning is proposed to change to the following City of Agoura Hills zoning districts: Very Low Density Residential (RV) (<2 DU/acre)-Old Agoura Overlay (OA)-Equestrian Overlay (EQ) for the fifteen residential lots, and Open Space – Deed Restricted (OS-DR)-OA-EQ for the remaining parcels. Assessor Parcel Number 2055-010-901 and a portion of the Caltrans right-of-way, both to be annexed to the City, would be zoned OS-DR-OA-EQ. The City of Agoura Hills General Plan 2035 (2010) (City General Plan) land use designation would be Residential Very Low Density (RV) (0.2 – 1.0 DU/acre) - for the fifteen residential lots and Open Space – Deed Restricted (OS-DR) for the remaining parcels. Assessor Parcel Number 2055-010-901 and the portion of the Caltrans right-of-way would be designated OS-DR.

The City entitlement process would follow the Los Angeles County Local Agency Formation Commission's (LAFCO) annexation. The proposed project includes grading for construction of the infrastructure components, but not for residential pads or residences, with the exception of the pad grading for Lot 1. Lot 1 is within a FEMA floodplain, and excess dirt from the project grading would be used to elevate Lot 1 so that there would be no net export or import of soil from the Agoura Equestrian Estates Project site. However, no residence on Lot 1 would be constructed as part of the currently proposed project. Construction is proposed to begin within six months of entitlement and to take a total of twelve months. During project construction, staging and equipment storage areas would be at Lot 15 of the proposed subdivision, and outside of the protected zone of the existing off-site oak tree.

A Final Environmental Impact Report (Final EIR) was prepared for a previous proposal for the same site (the Heschel School project) in 2006. The adequacy of the Final EIR was challenged; however, that legal challenge has not been pursued by either party. Although the CEQA documentation for this proposed project will not tier off of the earlier EIR, technical data from the Heschel School EIR has been independently analyzed by the City and utilized as appropriate in the preparation of this Initial Study.

For the purpose of this analysis, the currently proposed project (subdivision; annexation; and private road, drainage, trails, utilities construction) is being assessed, as well as the ultimate construction of fifteen single family homes as part of a later project(s). As each single-family residence is proposed for development in the future, the individual development would require an individual permit process, such as Site Plan Review. All development, including the residential construction, would be required to be compliant with the Agoura Hills Municipal Code.

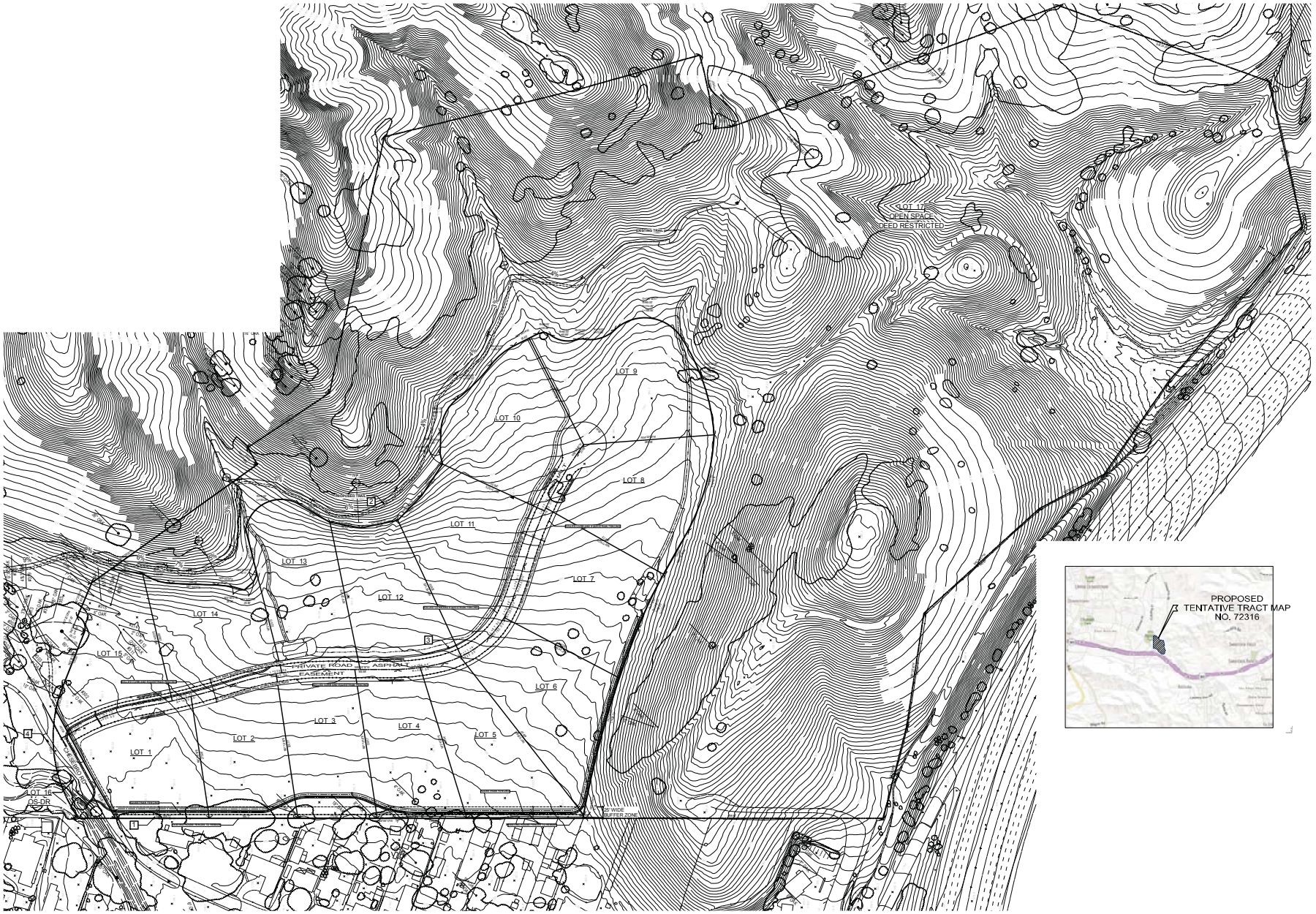
Figures 3 through 7 show details of the site plan including the trails, drainage design, grading plan, and lot layout.

PUBLIC AGENCIES WHOSE APPROVAL MAY BE REQUIRED FOR SUBSEQUENT ACTIONS (e.g. permits, financing approval, or participation agreement):

The applicant is requesting the following planning entitlements/approvals from the City of Agoura Hills:

- Vesting Tentative Tract Map to:
    - Divide approximately 71 acres (APN 2052-009-270) into sixteen lots: (1) open space, (2) fifteen residential lots
    - Retain the one parcel (about 0.25 acre) across Chesebro Road (APN 2055-010-270) as a separate open space lot.
- Development Agreement
- Purchase and Sale Agreement
- Pre-annexation Agreement
- Annexation and Sphere of Influence Change for the two project parcels plus a state-owned parcel (APN 2055-010-901) and a portion of the Caltrans right-of-way along U.S. Highway 101
- General Plan Amendment (for the annexation)
- Oak Tree Permit (to be determined based on final grading plans; based on the proximity of grading to the existing oak immediately off-site of the parcel, and any on- or off-site oaks)
- Conditional Use Permit for the overall project, given that the approximately 70-acre parcel is hillside, and that trails are proposed in the OS-DR zone)
- Pre-Zoning and Zone Change (From County zoning to Residential Very Low (RV)-Old Agoura Overlay (OA)-Equestrian Overlay (EQ) for fifteen residential lots and Open Space – Deed Restricted (OS-DR)-OA-EQ for the two open space lots.

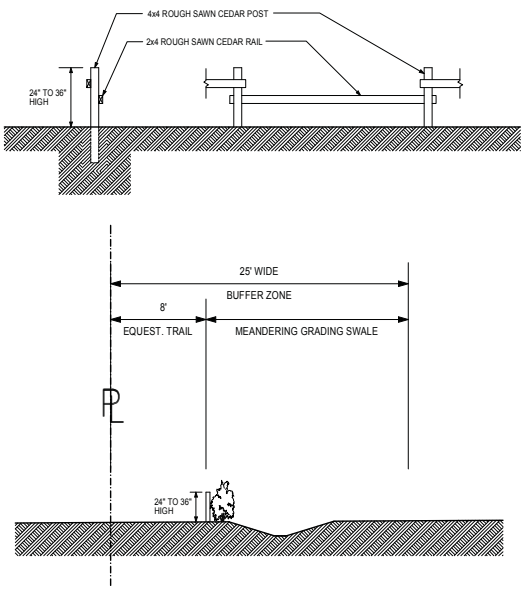
The proposed annexation to the City of Agoura Hills would also require approval of the Los Angeles County Local Agency Formation Commission (LAFCO).



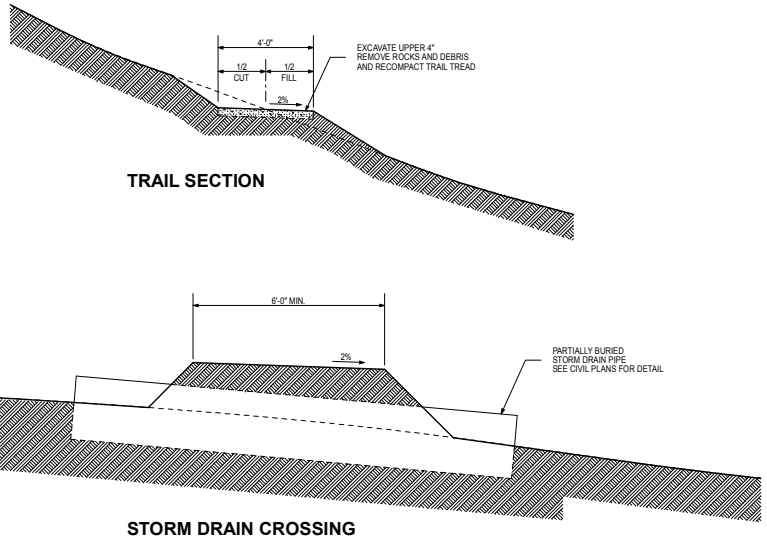
Site Plan with Equestrian Trails

Figure 3

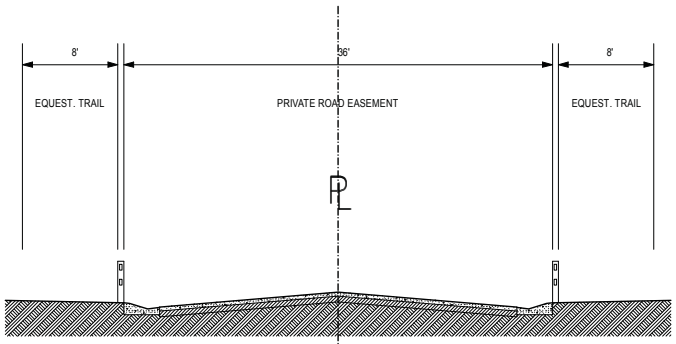
Source: Equine Estates, LLC



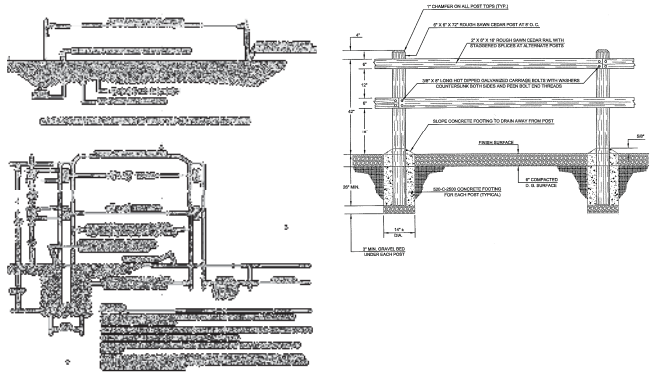
1. ADJACENT RESIDENT EQUESTRIAN TRAIL



2. 4-FT WIDE OPEN SPACE TRAIL
MULTI-USE TRAIL TO MEET NATIONAL PARK SERVICE (NPS) STANDARDS



3. 8-FT WIDE EQUESTRIAN TRAIL ALONG PRIVATE ROAD

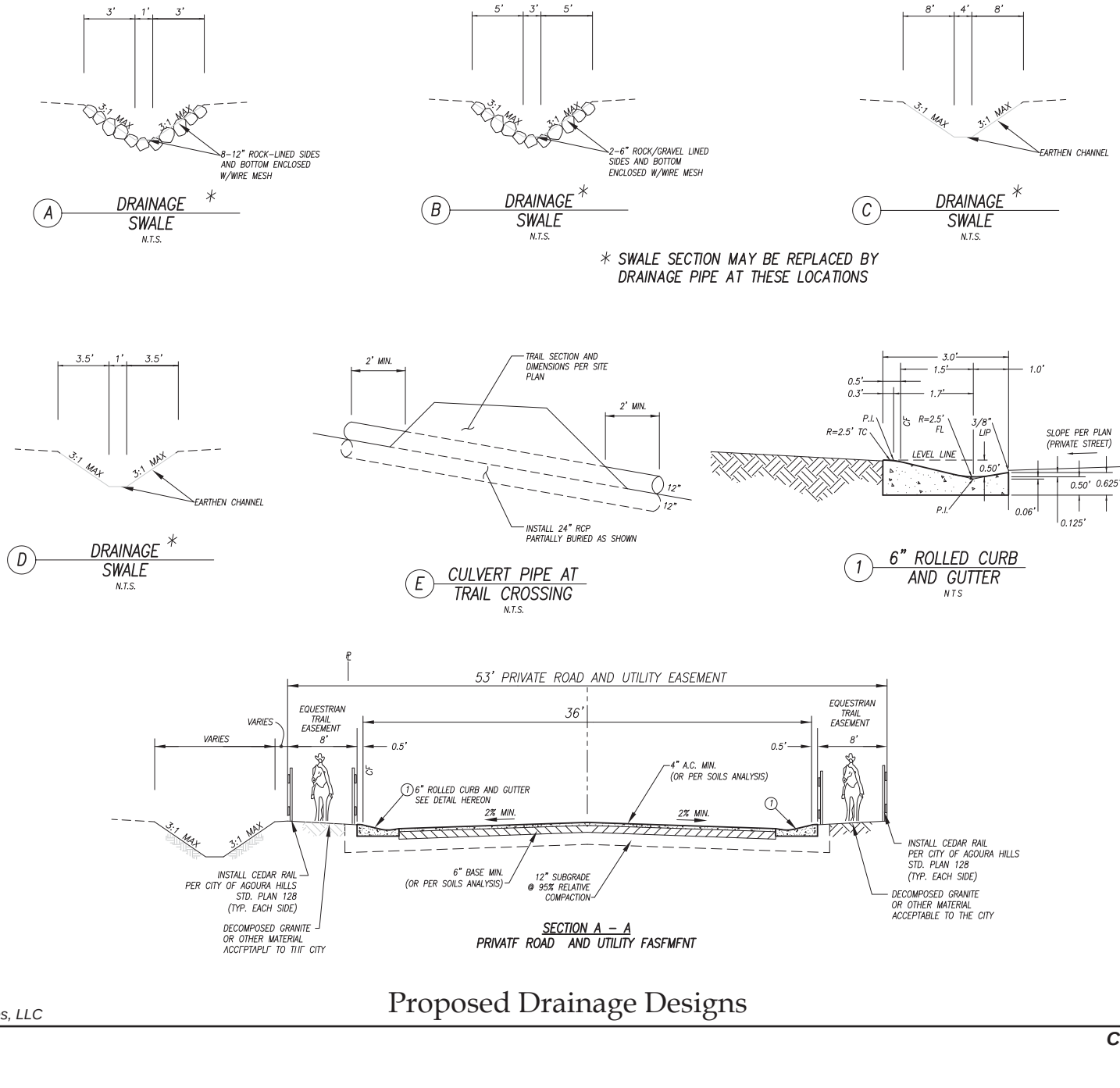


4. CITY OF AGOURA HILLS EQUESTRIAN TRAIL

Source: Equine Estates, LLC

Proposed Trail Details

Figure 4



Source: Equine Estates, LLC

Proposed Drainage Designs

Figure 5